A Role and Reference Grammar Analysis

of Georgian Morphosyntax

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THESIS

Submitted in partial satisfaction of the requirements for the degree of

MASTER OF ARTS

in

Linguistics

in the

GRADUATE DIVISION

of the

UNIVERSITY OF CALIFORNIA

DAVIS

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1992

TABLE OF CONTENTS

Chapter 1

Introduction

1.0   As a typologically unusual language, Georgian is beginning to
attract attention from a variety of linguists who seek to explain both
its curious verb system and its unusual case marking patterns. To date
the most comprehensive account of Georgian syntax is Alice Harris's
study (1981). In it she provides a wealth of data as well as a lucid
analysis of all the major syntactic structures in the grammar, includ-
ing passives, causatives, reflexives and version objects. This paper
owes its very existence to Harris's study as it is mainly her data
which this paper uses to illustrate its explanations of the morpho-
syntax of the language. Data compiled by both Aronson (1982) and
Holisky (1978; 1979; 1981a; 1981b; 1981c) also greatly contribute to
this study, as well as does some additional new data.[1]

Although Harris conducts her study within the framework of Relat-
ional Grammar [RG]--a theory which is exclusively syntactic in nature--
she does state that initial grammatical relations are predictable on the
basis of verb semantics and makes a brief attempt herself at translat-
ing semantic roles into grammatical relations (Harris 1981: 251-252).
Overall, however, Harris never wades very far out into the rich and
complex verb semantics of the grammar. As a result, as one would ex-
pect from a study conducted within the framework of RG, although Harris
acknowledges the significance of verb semantics in an analysis of
Georgian, ultimately her argumentation and presentation of conclusions

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[1] I wish to thank Shota Vashakidze and Nana Kaxadze who spent time
contributing to this study by supplying additional data of their native
Georgian.

are based entirely upon syntactic evidence and explanations.

Here is where this paper sharply contrasts with Harris's analysis. In this work, lexical semantics are considered the foundation for the analysis. Toward this goal this study is undertaken within the framework of Role and Reference Grammar [RRG], as developed and refined by Foley and Van Valin (1984; hereafter FVV) who implement Dowty's (1979) system of lexical decomposition of verbs into stative predicates interacting with the abstract operators BECOME and DO and the sentential connective CAUSE. In short, this paper will start from inherent verb semantics and then show how they yield conclusions about the morphosyntax of the grammar, instead of starting with syntactic argumentation in hopes of building an abstract construct which reflects conclusions about verb semantics.

The primary barrier to an analysis based on verb semantics is evident in Rosen's (1984) response to Perlmutter's (1984) speculation on the existence of the Universal Alignment Hypothesis, the premise that there might exist a mechanism for directly mapping thematic relations such as agent and patient onto grammatical relations such as subject and direct object. As Rosen (1984: 61) points out:

> Still it might be thought that generalizations referring to initial 2-hood, or to intial 1-hood, can be replaced by generalizations referring to semantic categories--not exactly 'Agent' or 'Patient', but suitably revised and refined categories, which could then serve as part of the apparatus of syntactic theory. That view, restated, is that one can in principle find some set of semantic categories such that each one is extensionally equivalent to an initial GR. To make that claim is to assert the Universal Alignment Hypothesis.

However, Rosen then goes on to show that these semantic categories do not align with grammatical relations in any consistent or universal way. The limitations of semantic case roles is particularly evident with intransitive verbs, some of which take 1's and others which take 2's as initial grammatical relations. In RG terms, the initial 2 of an intransitive clause is then subject to a rule of Unaccusative Advancement [UA] by which it then becomes a final 1. Rosen concludes that just as Fillmorian case grammar cannot account for the two types of intransitive clauses neither can any other monostratal theories (Rosen 1984: 69):

> This is a framework that draws no distinction at
> all between semantic roles and initial GR's, so
> the possibility of comparing these two sets could
> not even be envisioned. In effect, their equi-
> valence is presupposed. The same would be true
> of monostratal or 'surfacist' frameworks in
> general.

By the end of Chapter 2, however, this paper will show that semantic relations can in fact be mapped onto the syntax in a very principled fashion through the presence of a second tier of semantic roles--the macroroles Actor and Undergoer as developed in FVV. These macroroles translate into the two arguments of a transitive clause; however, either one may be the single argument of an intransitive clause. In short, the macroroles then retain semantic information from the first semantic tier but are then the link to the syntax of a grammar and allow the basic clause structure to be explained in a principled way and without appealing to grammatical relations or various levels of syntactic derivation.

Chapter 2 also discusses the Georgian verb system and its wide

variety of derivational morphology. At the root of the analysis is the classification of verbs into the classes of Accomplishments, Achievements, Activities, and Statives as first proposed by Vendler (1967) and later adopted by Dowty (1979). Dowty's use of abstract predicates to account for the distinctions among verb classes proposed by Vendler forms the basis for an RRG analysis. Thus, the derivational processes of the Georgian verb system will be explained through the interaction of abstract predicates and connectives as put forth by FVV.

Chapter 3 tackles what is perhaps the most difficult and identifying point of Georgian grammar--its case system. Past analyses of Georgian case marking have argues whether or not Georgian is an ergative language and also whether or not it marks an active/inactive distinction in the aorist tense. Most of these accounts of the case marking do a much more convincing job of refuting other arguments than they do of advancing their own. This chapter explains the case marking in a very predictable way through the use of the RRG macroroles Actor and Undergoer.

Chapter 4 explores the major syntactic constructions in which additional case marked nominals are added to the valence of a verb through derivational or morphological processes. More specifically, this chapter explains causatives and version objects within the RRG framework.

Chapter 5 continues with the discussion of case marking, this time considering the occurrence of "inversion" case marking in Class 4 verbs and Series III tense. In this chapter an analysis of passives will also be presented. Passives are included in this chapter because an understanding of Class 2 verbs (all passives are Class 2) is crucial to a complete understanding of "inverse" case marking.

Finally, chapter 6 explains the basic rules of Georgian reflex-
ivization.

Georgian verb morphology is very complex with a variety of affix-
ation to indicate tense series and agreement marking, as well as various
derivational processes. The following is a list of abbreviations used
in this paper for the interlinear glosses of the data:

SF   "stem formant"

PR   "preradical vowel"

PV   "preverb"

VV   "version vowel"

N   "nominative"

E   "ergative"

D   "dative"

Chapter 2

The Verb System

2.0 Introduction

The Georgian system of verbs is comprised of four verb conjugations or classes, each possessing its own inherent semantic characteristics. Each class can also occur across a number of tense-aspect series, called screeves, and here is where Georgian grammar becomes its most interesting. It is only through an understanding of the verb system that such issues as case marking and clause structure can be fully understood.

Several significant oppositions interact within the semantics of the four classes of verbs to form the complex system of lexical and inflectional verb aspect in Georgian grammar. One such key opposition is the distinction between the telic and atelic properties of verbs (Garey 1957). Telic verbs are those which are directed towards a goal or marked for a terminal point; the goal or terminal point, however, is not necessarily encoded as having been reached. Atelic verbs, on the other hand, are neutral with regard to end points. By definition they do not make reference to a goal or a terminal point. This is not to say, however, that they can never occur in a context with a goal; indeed, as Holisky (1981a) points out, many Class 3 Georgian verbs, a class of atelics, often occur in contexts with goals or end points. In short, while the telic property indicates the mandatory presence of a terminal point, the atelic property does not indicate a mandatory absence of a terminal point. Atelics are neutral.

The second significant opposition in lexical aspect is between

punctual verbs and linear or durative verbs. A punctual verb is one

which occurs in time frames which express a single point in time.

These time frames can include such adverbial constructions as xut

saatze ("at 5:00 p.m.") or rogorc ķi ("just at that very moment")

(Holisky 1981b). Durative verbs, on the other hand, occur in time

frames expressing periods of time, such as sami saati ("for three

hours") (also Holisky 1981b). Usually verbs marked for punctual

time frames cannot occur in durative time frames, nor can verbs marked

for durative time frames occur in punctual contexts (although this lat-

ter restriction requires some modification, as will be seen later).

Finally, a significant opposition in the Georgian tense-aspect

system is that between completed action and incomplete action. This

opposition, which will be discussed later, is the primary character-

istic which separates tense-aspect Series I verb forms from Series II

forms. This inflectional opposition operates entirely independently

of the lexical telic/atelic opposition.

2.1 The Verb Series

Although the Georgian verb system makes eleven distinctions in its

tense-aspect system, all of these forms collapse into a straightforward

division of three main tenses or series.[1] For example, the first series

is divided into two subseries, the present and the future. Each of

these two subseries are then further divided into three screeves

(tense-aspect categories), the most important for this discussion

being the present and future screeves. These subseries, however, are

similar enough morphologically to allow generalizations to be extracted

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[1]This classification of the tense-aspect system represents the trad-
ional view as put forth by Vogt (1971) and Tschenkeli (1958).

about the entire series. More specifically, the significant character-
istics of each of the three series can be seen in the data below
(series [Roman numerals] and verb class [Arabic numerals] are indicated
in parentheses).

(2.1) glex-i   Ø-tes-as-s   simind-s.

       peasant-N   3sgD-sow-SF-3sgN (I-1)   corn-D[2]

       "The peasant is sowing corn."

(2.2) glex-ma   da-Ø-tes-a   simind-i.

       peasant-E   PV-3sgN-sow-3sgE (II-1)   corn-N

       "The peasant sowed corn."

(2.3) glex-s   da-u-tes-av-s   simind-i.

       peasant-D   PV-3sgD-sow-SF-3sgN (III-1)   corn-N

       "The peasant has sown corn."

(Data from Harris 1981: 1).

The first two series display an opposition between incomplete and
completed action. All Series I forms tend to focus on the action or
process of the verb itself. Even is there is a reference to an end
point or point of completion, this point has not been reached. In
(2.1), a present tense form, the act of sowing corn has not been com-
pleted. Similarly, this generalization about the semantics of Series
I also holds for each of the other subseries of this set. The imper-
fect, as the label implies, denotes incompleted action and, therefore,
also focuses on the process of the verb. In addition, the future sub-
series, by definition, indicates an event or process yet to occur and
thus also indicates incompleted action. Series II aorist verb forms,

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[2] In Georgian, case agreement is referenced on the verb. The details
of this will be discussed in Chapter 3.

on the other hand, tend to focus on the completion of the action or
process--in short, the entire event. In (2.2), for example, the process
or activity of sowing corn has been completed. Thus, the motivation
for a formal division between verbs of Series I and II falls along
semantic lines indicating whether a conclusion to the process has been
reached.

The semantic nature of Series III verb forms, however, is not
quite as straightforward as are the semantics of the first two series
forms. Aronson (1982: 274-276) explains three main uses of the Series
III perfective. Instead of merely stating straight facts of completion,
as dies the Series II aorist, the perfect also conveys a nuance of
deduction or supposition that the occurrence of the action or event
is in the past.

(2.4) vano-m çeril-i   m-i-i -o.

       vano-E letter-N 3sgN-PR-receive-3sgE (II-1)

       "Vano received the letter."

(2.5) vano-s mosacvev-i   garati miu i-a;   lekciaze-0

       vano-D invitation-N   receive-3sgN (III-1) lecture-D

       mo-vid-a.

       PV-come-3sgN

       "Vano (must have) received the invitation; he came to the

       lecture."

(Data from Aronson 1982: 274).

While (2.4), a Series II verb, is merely a statement of fact, (2.5),
a Series III verb, carries with it a nuance of deduction or inference
about something in the past, here based on other contextual information
contained in the second clause. These Series III evidential forms

felicitously occur with adverbials like <u>turme</u> ("must have" or "appar-ently") (Aronson 1982: 274) which highlight the inferential nature of the series.

The Series III perfect is also used for reported action. When a speaker is merely reporting what he has heard from someone else, he would use the Series III perfect form.

(2.6) vi acam mepe moḳla! kucasi videki da vnaxe.

"Someone killed (aorist) the king! I was standing in the street and saw it."

(2.7) vi acam mepe mouḳlavs! saidan icit? vi acam mixtra.

"Someone killed (present perfect) the king!"   "From where do you know?" "Someone told me."

(Aronson 1982: 276).

In (2.6) the implication of the aorist is that the speaker has witnessed the act; in (2.7) the implication of the perfect is that the speaker did not witness the event but rather heard about it through another party.

Finally, the third main use of the perfect is to denote simple negation in the past, simple because it contrasts with the somewhat more specialized negation of the past found in the Series II aorist.

(2.8) is ṗerangi ar miqidia.

"I didn't buy (perfect) that shirt."

(2.9) is ṗerangi ar viqide.

" I didn't buy (aorist) that shirt (because I didn't feel like it).

(Aronson 1982: 276).

The negated Series II aorist (2.9) carries with it the connotation of

unwillingness to engage in the action of the verb while the negated Series III perfect (2.8) carries no such connotation.

In all three uses of the perfect the focus is on a completed act in the past and its relevance to the present moment, a relevance to the resultative nature of the event. Harris (1981: 118), in fact, adds that these Series III evidential forms serve to remove the speaker from the reported event. The three series of verb forms, therefore, correspond to the process of the verb (Series I), the completed process or event (Series II), and the results or resultative state of the event (Series III).

2.2 The Verb Classes

Just as the tense series are sensitive to the completed/incompleted action opposition, the four conjugations or classes are sensitive to the two other oppositions mentioned earlier. Both the telic/atelic distinction and the punctual/durative distinction are central to the semantics of verb class in Georgian. Holisky (1979) provides the most concise accounting of the semantic characteristics of Georgian verb class membership. She also provides a system of nine diagnostic tests for determining the telic property of verbs in all classes and series (for a full account of this, see Holisky 1979). In brief, Class 1 verbs are telic while those of Class 3 are always atelic. For Class 4 verbs this opposition is not relevant, nor is the completed/incompleted action distinction, since these verbs are stative, and stative verbs have no endpoints. Hence, reference to endpoints or reaching endpoints does not apply. See Figure 1 for a complete summary of the telic and punctual characteristics of verb class membership.

		Telic	Punctual
Class	1	+	<u>+</u>
	2	<u>+</u>	+
	3	-	-
	4	d.n.a.	-

Figure 1.

With only a few exceptions, all class 1 verbs are transitive and mark both of their core arguments in their morphology. Also, there is an ongoing nature to the situations these verbs depict, which helps to distinguish both Class 1 and Class 3 verbs from Class 2 and Class 4 verbs. Manner adverbs such as <u>nelnela</u> ("slowly") modify this ongoing nature and thus occur felicitously with Class 1 verbs. Unlike verbs of other classes, these verbs occur in both punctual and durative time frames. They are punctual in Series II, durative in Series III, and mixed in Series I, occurring as punctual only in the future subseries (marked by the presence of a preverb) and as durative in the present (no preverb present).

Class 2 verbs are more consistent than are Class 1 verbs. They are usually intransitive and in all series they are punctual and occur felicitously with adverbials which pinpoint one moment in time, such as <u>tu</u> <u>ara</u> ("just when") and <u>rogorc</u> <u>ki</u> ("at the very moment").

(2.10) *rogorc ki bavsvi tiris, deda saxlsi sedis.

　　　"Just at the moment when the baby is crying, the mother enters the house."

(2.11) rogorc ki bavsvi atirdeba, deda saxlsi sedis.

　　　"Just at the moment the baby begins to cry, the mother enters

the house."

(Holisky 1981b).

In (2.10) ṭiris ("cry") is a Class 3 verb and cannot occur grammatic-
ally with rogorc ḳi.   In (2.11), however, aṭirdeba ("begin to cry")
is a Class 2 inceptive verb (inceptives are explained later in this
chapter) derived from the Class 3 verb.   Since it occurs here as a
Class 2 verb, it marks one particular point in time (it is punctual)
and can therefore occur with the adverbial rogorc ḳi.

    Class 3 verbs are described in great detail by Holisky (1981a),
who subdivides this class of verbs into nine subclasses based on var-
ious structural and semantic similarities and restrictions.   As a rule,
however, verbs of this class are both atelic and durative.   As already
mentioned atelic verbs can in some circumstances occur in telic con-
texts with an endpoint.   And since the telic property is somewhat sen-
sitive to the presence of direct objects (Holisky 1979), this means
that in some contexts Class 3 verbs can be transitive.   For the most,
however, Class 3 verbs more often occur as intransitives.

(2.12)   vano-m   i-tamaš-a.

       Vano-E   PR-play-3sgE (II-3)

       "Vano played."

(2.13)   v-i-tamaš-e-t   sami   parṭ-ia.

       3plE-PR-play-II-3plN (II-3)   three   rounds-N

       "We played three rounds."

(Harris 1981: 183).

(2.12) and (2.13) are examples of how some Class 3 verbs can occur in
both a context without an endpoint and one with an endpoint--or with
or without a direct object.   Finally, Class 3 verbs generally denote

ongoing actions or activities which are agentive in nature--that is, the subject argument of the verb volitionally controls the action.

Class 4 stative verbs fall outside the range of most oppositions which characterize the differences among the first three classes of Georgian verbs. This is not to say that these verbs require an entirely different set of criteria for classification but rather merely that the fundamental opposition relevant to them (what helps distinguish them from verbs of other classes) is the lack of other oppositions within the Georgian system of aspect. More specifically, for example, Class 4 verbs do not partake of the telic/atelic opposition since they never occur with goals. Perhaps this might be best explained by constructing a three-way opposition among telic (marked for goals), atelic (neutral with respect to goals), and "non-telic" (restricted to occurrence without goals). Also, these verbs do not partake of the opposition which occurs between aspectual series, the opposition between completed and incomplete action.

For the most part, Class 4 verbs are non-agentive and durative. Holisky (1978) describes the characteristics of these verbs in detail, explaining how they differ from verbs of the first three classes. For example, unlike the verbs of Classes 1 and 3, Class 4 verbs do not possess a property of ongoingness. They cannot occur with adverbs, such as nelnela ("slowly"), which modify the ongoing nature of the verbs.

Class 4 verbs do occur, however, in non-unique time instants or, in other words, with adverbials which denote a single point in time (but which is not necessarily a unique point in time).

(2.14) daviti 1191 çels mepe iqo.

David was king in 1191.

(2.15) daviti 1190 çels gamepa.

David became king in 1190.

(Holisky 1978: 144).

In (2.15) there is only one point in time when this sentence is true; however, the sentence in (2.14) indicates only one of potentially many times when that sentence is true. Sentence (2.14) is an example of a non-unique time frame and the verb with which it occurs is a Class 4 verb. Sentence (2.15), on the other hand, is an example of a unique time frame occurring with a Class 2 verb. Thus, the occurrence of verbs in unique or non-unique time frames is one test for distinguishing between Class 4 durative verbs and Class 2 punctual verbs.

Since Class 4 verbs are non-agentive, they should not occur in constructions which acknowledge the volition or control of an argument. And since adverbs like ganzrax ("intentionally") (Holisky 1978), which refer to volitional or intentional action, occur in an environment of agency, these adverbs of intention provide another test for Class 4 verbs.

Relevant to any discussion of the four Georgian verb conjugations is Vendler's (1967) system of verb classification and its further refinement by Dowty (1979). Vendler assumes four classes of verbs-- states, activities, achievements, and accomplishments--into which all verbs can be classified. Dowty adopts this system of classification and develops a series of tests based on syntactic, semantic, and pragmatic criteria to determine the proper class membership for each verb. For example, verbs which indicate a single change or state, such as achievements, do not usually occur in the progressive. This is because

this type of verb marks a specific moment in time and therefore tends to be awkward in constructions of duration, such as the progressive. For an in depth discussion of tests for verb class membership, see Dowty (1979).

This quadripartite division of verbs into classes is the basis for Dowty's theory of lexical decomposition, a description of all verbs as some combination of a simple stative predicate plus a possible abstract predicate or operator and sentential connective. This description is the verb's logical structure. In this system stative verbs are the most easily noted, comprised of only the stative predicate itself, and formalized as predicate' (x), where (x) is the single argument of a one-argument stative verb and predicate' is the stative verb itself.

Achievement verbs are also easily formalized as they consist of the abstract predicate or operator BECOME in addition to a simple stative predicate, formalized as BECOME predicate' (x). The logical structure, for example, of notice is BECOME see' (x,y), where BECOME indicates the onset of the stative predicate see' and (x,y) indicate the arguments of the verb. Thus the complete logical structure for (2.16) is (2.17).

(2.16) "Van noticed the iguana."

(2.17) BECOME see' (Van, iguana).

Accomplishment verbs are designated by a somewhat more complex logical structure--¢ CAUSE §. Here two verbs (¢ and §), normally an activity verb and an achievement verb, are linked by the sentential connective CAUSE. Kill, for example, has the logical structure

[DO (x)] CAUSE [BECOME dead' (y)]. Here DO (x) is an activity predicate and BECOME dead' (y) is an achievement predicate.

Activity verbs are formalized as DO (x, [predicate' (x)]) where the operator DO precedes the predicate and indicates that the verb is under the unmediated control of an agent. Some activity verbs, however, are not agentive and do not have DO in their logical structures.

These logical structures characterize most of the verbs in all four classes; however, this is not a comprehensive listing. Some types of verbs, mainly state and activity verbs, can have logical structures which differ slightly from the above formalizations. Activity verbs, for example, may have a logical structure without DO, thus indicating a non-volitional or uncontrolled activity. Also the logical structure of state verbs may have a slightly different logical structure to account for state verbs with two arguments. For a more complete discussion of variations in logical structures, see FVV (chap. 2).

The four conjugations or classes of Georgian verbs fall out into the four verb classes of the Vendler/Dowty system: Class 1 Georgian verbs are those with accomplishment semantics; Class 2 are those with achievement semantics; Class 3 are those with activity verb semantics; and Class 4 are those with stative verb semantics.[3] Although Holisky (1981b) analyzes the verb system in terms of the Vendler/Dowty classification, other recent studies (Aronson 1982 and Harris 1981) do not. Instead both Aronson and Harris describe the four classes as transitive, intransitive, medial, and stative verbs. It will be shown here that to

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[3] See Holisky (1981b) for detailed arguments to this effect.

for the distinction between Class 1 and Class 2 verbs simply as a distinction in transitivity, although partially correct, is neither the most accurate nor economical explanation of the system.

In the transitivity-based type of analysis, Class 1 verbs are mainly transitive (the exceptions are too few to pose any serious problems for the anlysis) and can represent either basic verb forms or derived organic causatives.

(2.18) da-Ø-çer-s.

PV-3sgD-write-3sgN (I-1)

"He will write it."

(2.19) da-a-Ø-çer-ineb-s.

PV-CAUSE-3sgD-write-CAUSE-3sgN (I-1)

"He will cause him to write it."

(Harris 1981: 262).

The basic Class 1 verb form is seen in (2.18) with both arguments of the transitive verb coded on the stem (here Ø is the third person singular marker for direct objects and -s the third person singular marker for subjects).[4] In these examples the preverb da- is an indicator of future tense. The derived organic causative is indicated in (2.19) by the presence of the causative circumfix -a...ineb-. (Causatives will be treated in depth in chapter 4.) It should also be noted here that if a nominal argument is morphologically coded on the verb stem, either through a preverb or a verbal affix, then the nominal need not occur overtly in the sentence. Georgian also does not distinguish gender in

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[4]It should be pointed out at this time that the use of these terms (subject, direct object) are being used for convenience at this point and will later be discussed within the terminology of RRG.

the person markers affixed to the verb; thus, the subjects of (2.18)
and (2.19) could also be "she."

Class 2 verbs are intransitive and can occur as basic Class 2
forms or as derived passives or inceptives.

(2.20) v-i-mal-eb-i.

  1sgN-PR-hide-PRES (I-2)

  "I am hiding."

(2.21) da-i-çer-eb-a.

  PV-PR-write-SF-3sgN (I-2)

  "It will be written."

(Data from Aronson 1982: 61).

(2.22) a-civ-d-eb-a

  PV-cold-INCEP-SF-3sgN (I-2)

  "It will become cold."

(Holisky 1981c: 9).

A basic Class 2 intransitive verb is indicated by (2.20). The final -i
is a Class 2 present tense marker. (2.21) is a Class 2 passive derived
from a Class 1 verb (çer) through the addition of the preradical vowel
-i- and the stem formant -eb-. (2.22) is an inceptive derived from a
Class 4 stative verb by the addition of -d-, which marks inceptives or
inchoatives. Thus, in addition to basic intransitive verbs, Class 2
verbs are often derived intransitives of verbs from other classes, often
taking on a passive or inchoative meaning. Due to the intransitive
nature of both basic and derived Class 2 verbs, Harris and Aronson
choose to label the entire class as intransitive.

Class 3 verbs denote ongoing activities and are neither strictly
transitive nor intransitive. In fact, since they are unmarked for

transitivity yet can occur with direct objects, they are often referred
to as medial verbs.

(2.23)   i-tamaš-eb-s.

       PV-play-SF-3sgN (I-3)

       "He will play."

(2.24)   Ø-i-qaraul-eb-s.

       3sgD-PV-guard-SF-3sgN (I-3)

       "He will guard it."

(Harris 1981: 265-266).

Both (2.23) and (2.24) indicate ongoing activities and differ only in
transitivity. In (2.24), as in (2.18), the third person direct object
is noted by Ø.

Finally, Class 4 verbs denote emotions, sensations, or states of
being and can be either transitive or intransitive.

(2.25)   s-c̆ir-s.

       3sgD-need-3sgN (I-4)

       "He needs it."

(Harris 1981: 267).

(2.26)   ṭusaɣ-s   šiod-a

       prisoner-D   hunger-3sgD (II-4)

       "The prisoner was hungry."

(Harris 1981: 132).

As briefly mentioned earlier, verbs of one class are often derived
from verbs of other classes. This was mentioned in conjunction with
Class 2 inceptives and passives and Class 1 derived causatives. At the
heart of the Georgian verbal system lies the mechanism for such deriva-
tional processes as these, and it is at this point that Harris's explan-

ation could be improved upon. To refer to the four Georgian conjug-
ations as transitive, intransitive, activity, and state verbs and to
indicate that verbs of one class can have derived forms in another class
does not go far in developing a very principled explanation of how such
derivational processes work. Holisky (1981b) was first to note that in
order to explain these processes which occur regularly throughout the
grammar a system of verb classification such as Vendler's is indispen-
sable. By considering Class 1 verbs to be accomplishment verbs and
Class 2 verbs to be achievement verbs and then to look at characteris-
tics expected from these types of verbs, it is possible to develop a
much more accurate and complete explanation of the derivational pro-
cesses at work in the grammar. It is also important to note that these
processes are inherently morphological in nature and cannot be accur-
ately captured within a framework which is exclusively syntactic. Thus
an analysis such as Harris's, carried out within the framework of RG,
which does not allow for the interaction between lexical rules and
syntax, will never get to the very nature of these derivational pro-
cesses. Instead, a syntactic theory which allows for the interaction
of syntax and lexical rules and which is based on the Vendler/Dowty
system of verb classification will offer a much more accurate and
complete accounting of Georgian grammar. It is precisely for this rea-
son that this analysis is carried out within the theoretical framework
afforded by RRG.

One problem in particular for a purely syntactic analysis is exem-
plified in the following pairs of sentences (from Harris 1981: 262-266).

(2.27) i-stven-s.

PR-whistle-3sgN (I-3)

"He will whistle."

(2.28) da-∅-u-sṭven-s.

PV-3sgD-PR-whistle-3sgN (I-1)

"He will whistle it."

(2.29) i-curav-eb-s.

PR-swim-SF-3sgN (I-3)

"He will swim."

(2.30) ga-∅-curav-s.

PV-3sgD-swim-3sgN (I-1)

"He will swim it."

In a purely syntactic analysis the verb in (2.27) cannot be the same
lexically as that of (2.28); each must have its own entry in the lex-
icon with its individual subcategorization fram. Here (2.27) is sub-
categorized for one argument while (2.28) is subcategorized for two.
These two lexical entries would be necessary since the root sṭven
occurs across at least two verb classes and prevents from being written
any syntactic rule which applies to only one class. The only way to
account for why such a rule occurs with only one class of verbs and
not across classes with a verb with the same root, then, is to stip-
ulate that similar verbs in other classes are actually entirely differ-
ent verbs.[5] This explanation, however, is unsatisfactory. It is
obvious that the verb is the same (the root is identical) in both
classes; as a Class 1 verb it is merely inflected for one more argument.
It is thus more accurate, both empirically and intuitively, to explain a

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[5]See, for example, Harris's (1981: 181-186) discussion of cer,
daçera, and miçera ("write").

verb's occurrence in more than one class as a product of the grammar's inflectional or derivational morphology. And this is precisely what can be done in a framework which possesses a rich theory of verbal semantics and derivational relations. An RRG statement about the relationship between (2.27, 2.29) and (2.28, 2.30) is simpler and much more explanatory since it is predictable as based on general verb semantics of the Vendler/Dowty system. Activity verbs become accomplishment verbs when a definite goal is added to their structure. The lexical rule for this derivational is formalized as (2.31) (Van Valin 1990).

(2.31) Activity [motion, creation, consumption] -- Accomplishment:

an activity LS [¢... predicate' ...], add CAUSE [§ BECOME

predicate' ...] to form a ¢ CAUSE § accomplishment LS.

By accounting for the pairs of sentences of (2.27-2.30) in this principled way--by a general lexical rule--the lexicon is not needlessly cluttered with multiple entries of the same verb.

A second very productive morphological process is the derivation of causative verbs from verbs of other classes. As noted by Harris, causatives can be formed from verbs of the first three classes (for a complete analysis of causatives, see chapter 4), yet the causative is always realized as a Class 1 verb. Harris's analysis fails to provide an explanation of why all causatives should be realized as Class 1 verbs; instead she simply stipulates that the abstract underlying causative verb is Class 1. Yet the Vendler/Dowty system easily makes this prediction. All causatives are accomplishment verbs and accomplishment verbs are Class 1 verbs because only the logical structure of accomplishment verbs contains CAUSE--the mechanism needed for causative formation.

Finally, verbs from all other classes can be realized as Class 2 achievement verbs, either through passivization or derived inception. The passive in (2.21) is derived from the Class 1 active verb in (2.32).

(2.32)   da-Ø-çer-s.

       PV-3sgD-write-3sgN (I-1)

       "He will write it."

(Harris 1981: 262).

Here the passive is formed when the abstract DO (x, [predicate' (x)]) CAUSE is deleted from the logical structure, leaving behind only the operator BECOME and its argument and predicate, the basic structure of an achievement verb, which in Georgian is a Class 2 verb.

Class 2 inceptives can be derived from nouns, adjectives, and Class 3 (activity) and Class 4 (stative) verbs.

(2.33)   ṭir-i-s.

       cry-PRES-3sgN (I-3)

       "he is crying."

(2.34)   a-ṭir-d-eb-a.

       PV-cry-INCEP-SF-3sgN (I-2)

       "He will begin to cry."

(2.35)   civ-a.

       cold-3sg (I-4)

       "It is cold."

(2.36)   a-civ-d-eb-a.

       PV-cold-INCEP-SF-3sg (I-2)

       "It will become cold."

(2.37)   mepe   (noun)

       "king"

(2.38) ga-mep-d-eb-a.

   PV-king-INCEP-SF-3sg (I-2)

   "She becomes king."

(2.39) orsuli   (adjective)

   "pregnant"

(2.40) da-orsul-d-eb-a.

   PV-pregnant-INCEP-SF-3sg (I-2)

   "She gets pregnant."

(Holisky 1981: 2-6).

Here (2.34, 2.36, 2.38, 2.40) exemplify inceptives derived from a Class
3 verb, a Class 4 verb, a noun, and an adjective, respectively, indicat-
ing an extremely productive morphological process. The -d- affix is the
indicator of Class 2 inceptive verbs, which are often known as doni
forms. It would be easy to write a purely syntactic rule which derives
these inceptives through -d- affixing on verbs of other classes, but
this type of description does nothing to explain why inceptives occur
only as Class 2 verbs and not as some other consistent verb class.
However, by appealing to Dowty's system of verb classification and
abstract predicates, this is readily explained. Inceptives or incho-
atives mark a single point in time, a point when something undergoes a
change of state. They are, therefore, verbs which lack duration and
must be encoded as punctual in order toindicate this single point in
time. By definition achievement verbs signal a change of state and
also indicate a single point in time. These semantics are inherent in
the predicate BECOME in their logical structure. It is only natural,
then, and entirely predictable that inceptives or inchoatives will
always occur as achievement verbs or, more specifically in the Georgian

system, as Class 2 verbs. This analysis offers more explanatory power than does Harris's since hers simply stipulates that inceptives or inchoatives are Class 2 verbs.

Thus it is a combination of the syntactic and semantic properties of verbs which both determines membership in a particular verb class and explains the derivational processes which allow for a particular verb stem to manifest itself across two or more classes of verbs. These processes can reflect a change in the inherent semantics of a verb, as indicated by the variety of abstract predicates or operators with which a given verb can occur. However, to consider the difference between Class 1 and Class 2 verbs as a mere distinction in syntactic transitivity, as Harris and others do, takes away the only satisfactory explanation of the data, an explanation which, in a very principled way, accounts for the data in terms of the Vendler/Dowty system of verb classification. Without the Vendler/Dowty classification, there is simply no way to accurately explain why Georgian causatives are always realized as Class 1 verbs or why the derived Class 2 forms of Class 1 verbs are passives while those of Class 3 and Class 4 verbs are inchoatives.

Finally, although this paper has implied that all Class 1 verbs are accomplishments, all Class 2 verbs achievements, all Class 3 verbs activities, and all Class 4 verbs statives, this is not always the case (see Harris 1981: chaps. 12 and 16 for a discussion of these verbs). The vast majority of verbs pattern in this way although there are exceptions in every class. For example, there are verbs in Class 2 and Class 3 which really are accomplishment verbs semantically and behave that way syntactically. So whenever accomplishment verbs are referred to in

this paper, the deviant members of other classes are also included. This is also true for generalizations involving any of the four verb types.

Chapter 3

Case Marking

3.0 Introduction

Perhaps the single most obvious characteristic which helps define
both verb class and series is the nominal case marking patterns governed
by the intersection of verb class and series. It will be shown here
that to account for the various patterns of case marking exclusively
through the application of syntactic rules and levels of derivation
does not yield as satisfactory or complete an account as does one which
is based on the semantics of the verbal system. Since the language is
a head-marking one, an analysis of Georgian case marking also must
include a discussion of the cross-referencing morphology of the core
arguments on the verb. The arguments are indicated by three series of
agreement markers, usually assumed to indicate the grammatical relations
subject, direct object,and indirect object (Harris 1981; Aronson 1982).
The markers are as follows.

SUBJECT MARKERS	singular	plural
1p	v-	v-...-t
2p	Ø	-t
3p	-s/-a/Ø	-es/-en/-nen
DIRECT OBJECT MARKERS		
1p	m-	gv-
2p	g-	g-...-t
3p	Ø	Ø
INDIRECT OBJECT MARKERS		
1p	m-	gv-

2p	g-	g-...-t
3p	s-/h-/∅	s-/h-/-t

Since this study is not based on a theory of grammatical relations the terms subject and object will be used only during the discussion of the general case marking facts. However, it will be shown that the RRG terms of Actor and Undergoer can also lead to a very clear and complete accounting of the data. As a result, the subject markers will be referred to as the v- series markers and the direct and indirect object markers as the m_1- and m_2- series. It should also be noted here that the two m- series markers may in fact be only one series of markers. There is much inconsistency in the use of these markers by native Georgian speakers,and, thus, the exact nature of these series of markers still remains in question (Harris 1981: 29. Also, under certain morphological conditions a second set of indirect object or goal markers may appear:

	singular	plural
1p	mi-	gvi-
2p	gi-	gi-...-t
3p	u-	u-

This set of markers can be referred to as the u- series markers (Aronson 1982: 173).

The cross-referencing of arguments on the verb,however, does not make all the same distinctions as does the encoding of case on the nominals. For example, the v- series marking does not strictly correspond in occurrence with any one of the three core marking cases--the nominative, ergative, or dative. In fact, given the occurrence of various case marking patterns, it can be shown that the assignment of case and its subsequent cross-reference on the verb is sensitive to the

verbal semantics of class and tense.

For the sake of simplicity and clarity, it is best to use Harris's terminology in referring to the various case marking patterns. Pattern A occurs only in the Series II aorist and only with Class 1 and Class 3 verbs. Here the pivot nominal (subject or Actor) is marked in the ergative case (-m, -ma), the direct object or undergoer in the nominative case, and any indirect object or goal in the dative case.

(3.1) nino-m Ø-ă-cven-a   surateb-i   gia-s.

Nino-E 3sgN-PR-show-3sgE (II-1)   pictures-N   Gia-D

"Nino showed the pictures to Gia."

(3.2) mama-Ø   mo-Ø-u-qv-a   motxroba-s   nino-s.

father-N PV-3sgD-PR-tell-3sgN (II-2)   story-D   Nino-D

"Father told a story to Nino."

(3.3) kartul-ma ena-m   Ø-i-sesx-a   siṭqveb-i

Georgian language-E 3sgN-PR-borrow-3sgE (II-3)   words-N

rusulidan.

Russian-from

"The Georgian language has borrowed words from Russian."

(Harris 1981: 40).

This ergative case marking pattern is exemplified in (3.1) and (3.3), Class 1 and 3 verbs in Series II. Both nino and kartulma ena are marked ergative and cross-referenced on the verb by the v- series markers. The Undergoer arguments of each sentence are marked nominative and cross-referenced on the verb by the m_1- series markers (here Ø). The final argument in (3.1) is a dative marked locative or goal and in (3.3) a postpositionally marked peripheral argument. This ergative-nominative-dative pattern is designated pattern A by Harris.

Pattern B, as illustrated in (3.4-3.6), is governed by Class 2 verbs across all series, in addition to Class 1 and 3 verbs in Series I.

(3.4) nino-∅ ∅-ǎ-cven-eb-s   surateb-s   gia-s.

      Nino-N   3sgD-PR-show-SF-3sgN (I-1)   pictures-D   Gia-D

      "Nino is showing pictures to Gia."

(3.5) mama-∅   ∅-u-qv-eb-a   motxroba-s   nino-s.

      father-N 3sgD-PR-tell-SF-3sgN (I-2)   story-D   Nino-D

      "Father is telling Nino a story."

(3.6) kartul-i ena-∅   ∅-sesxul-ob-s   siṭqveb-s

      Georgian language-N 3sgD-borrows-SF-3sgN (I-3)   words-D

      rusulidan.

      Russian-from

      "The Georgian language borrows words from Russian."

(Harris 1981: 40).

In these sentences the subject arguments are case-marked nominative and cross-referenced on the verb by the v- series markers. The direct object argument is marked dative and is cross-referenced on the verb by the m_1- or m_2- series markers. Usually, the direct object is marked with the m_1- series; however, with a two-argument verb where the non-pivot argument is a locative-goal the m_2- series markers apply and can thus mark the object. However, the m_2- series also frequently applies in clauses with three core arguments and marks non-Actor or non-Under-goer locative or goal core arguments.

Finally, all Class 4 verbs and Class 1 and 3 verbs in Series III govern pattern C case marking.

(3.7) turme   rezo-s   samajur-i   u-čuk-eb-i-a

      apparently   Rezo-D   bracelet-N 3sgD-give-SF-PERF-3sgN (III-1)

dedis-tvis.

mother-for

"Apparently Rezo gave a bracelet to his mother."

(Harris 1981: 117).

(3.8)   gela-s   u-qvar-s   nino-$\emptyset$.

        Gela-D   3sgD-love-3sgN (III-4)   Nino-N

        "Gela loves Nino."

(Harris 1981: 127).

(3.9)   s-cxel-a.

        3sgD-hot-is (I-4)

        "He is hot."

(Harris 1981: 267).

In pattern C case marking the subject is marked by the dative case and cross-referenced on the verb through the $\underline{m}_2$- series markers. The direct object argument, on the other hand, is case-marked nominative and cross-referenced on the verb by the $\underline{v}$- series. This pattern of marking is exemplified in both (3.7, 3.8), (3.7) occurring in Series III and (3.8) occurring as a Class 4 verb. In (3.9), an intransitive Class 4 verb, the single argument is marked in the dative case and again cross-referenced by the $\underline{m}_2$- series. Final -$\underline{a}$ is characteristic of many verbs holding pattern C case marking and is a clitic form of "he, she, it is" (Harris 1981: 12-13). All verbs with pattern C case marking are usually called inversion verbs since the case marking and cross-referencing patterns of the subject are those usually reserved to indicate the direct object argument, and the direct object characteristics are those usually expected to accompany the subject argument in other verbs.

Thus, given the case marking characteristics of these three pat-

terns, pattern A is referred to as ergative-nominative, pattern B as nominative-dative, and pattern C as dative-nominative. It is unnecessary to further define the patterns since these descriptions indicate the differences in the case marking of the Actor and Undergoer arguments for all verbs. Although a third core argument (semantically usually a goal argument) can exist in sentences marked by patterns A and B, it will always occur as a dative marked nominal. Pattern C, however, can not occur with a third core argument and so any additional arguments beyond the Actor and Undergoer are always marked by a post-position. In summary, the distribution of the three case marking patterns across the verb system of class and series is as follows.

	Series		
	I	II	III
Class 1 (accomplishment)	B	A	C
Class 2 (achievement)	B	B	B
Class 3 (activity)	B	A	C
Class 4 (stative)	C	C	C

Thus the facts of Georgian case marking exhibit the need for two explanations--those for the occurrence of patterns A and C.

3.1 Ergative Marking in Series II

The occurrence of ergative case marking in Series II, although frequently the subject of much speculation, still has only recently been explained in a satisfactory manner (Van Valin 1990). Since most accounts consider the $\underline{v}$-, $\underline{m}_1$-, and $\underline{m}_2$- series markers indicative of the subject, direct object, and indirect object, it is not always considered a crucial point whether the subject nominal is marked nominative, as in (3.4), or ergative, as in (3.1). The most widespread

account is probably Harris's, which concludes that in Series II Georgian

observes an active/inactive distinction (Harris 1981: 236).

In Harris's analysis "active" refers to verbs which are agentive,

voluntary, or controllable. "Inactives" are those which are non-agent-

ive, involuntary, or non-controllable. Harris shows that Class 1 verbs

are those which have final subjects which are also initial subjects

(in RG terms). Class 2 verbs, however, are those which have an initial

intransitive direct object which becomes a final subject through Un-

accusative Advancement. Thus, her analysis states that in Series II,

"verbs with an initial subject that is also a final subject govern Case

Pattern A; other verbs govern Pattern B" (Harris 1981: 243).

Through this analysis Harris does account for the distribution

of ergative case marking with what is basically a purely syntactic

argument based on initial grammatical relations. However, what this

account does not show is why this active/inactive distinction should

only be sensitive to Series II verb forms; thus, she provides no general

explanation for case marking which applies to all verb classes and tense

series. For a more detailed explanation of this analysis, see Harris

(1981: 228-246). For other detailed arguments against this analysis,

see Hewitt (1987).

An RRG analysis, on the other hand, can explain all the facts of

case marking and cross reference in a manner which considers all the

involved semantics of verb class and tense series. The Actor-Undergoer

Hierarchy (Fig. 2) as first proposed in FVV (59) assigns the macroroles

Actor and Undergoer to verbs based on their logical structures [LS]

and thematic relations.

Actor   Undergoer

$\longrightarrow$

$\longleftarrow$

Agent   Effector   Experiencer   Locative   Theme   Patient

(Fig. 2)

For example, the transitive clause in (3.10) is an accomplishment verb
with both an agent and a patient in its LS.

(3.10) John intentionally broke the cup.

The agent John outranks the patient cup for Actorhood while cup is the
highest ranking argument for Undergoerhood. Thus, it can be seen how
the assignment of Actor and Undergoer is predictable based on the
thematic relations present in the LS. In addition, the LS can then
also predict the number of macroroles that a verb can take (for a full
detailed accounting of thematic relations and LS's, see FVV; Van Valin
1990). To summarize, the general principles of macrorole assignment
are as stated in (3.11).

(3.11) General Macrorole Assignment Principles:

    a. Number: the number of macroroles a verb takes is less than
            or equal to the number of arguments in its LS.

        1. If a verb has two or more arguments in its LS, it
            will take two macroroles.

        2. If a verb has one argument in its LS, it will take
            one macrorole.

    b. Nature: for verbs which take one macrorole,

        1. If the verb has an activity predicate in its LS,
            the macrorole is Actor.

        2. If the verb has no activity predicate in its LS,

the macrorole is Undergoer.

(Van Valin 1990).

By (3.11.b.1) Georgian verbs of Class 1 and 3 (accomplishments
and activities) take the Actor macrorole by virtue of the activity pred-
icates in their LS's. By (3.11.b.2) Class 2 and 4 verbs (achievements
and statives) take the Undergoer because they do not possess an activity
predicate in their LS's (see Chap. 2). Now, as regards cross-referencing
arguments onto a verb, it can be said that in Georgian the v- series
marks Actor, if there is one. If not, it marks the Undergoer. Thus,
v- marks the ergative argument in Series II for Class 1 and 3 verbs.
When the ergative case is not present, v- marks the nominative argument.

As discussed in Chap. 2 there exists a semantic distinction among
the verb series. Both Series II and III involve a result state; however,
Series I, comprised of the future and present tenses, does not. In
addition, the Series III evidential is stative while Series I and II
are not.

Series	Result state	Stative
I	−	−
II	+	−
III	+	+

In Series II and III nominative codes the argument in the result state.
In Series I, however, it has a different function, as will be explained
later. Since Series II is active (non-stative) and there is an Actor
and Undergoer in a result state (for Class 1 and 3 only), ergative marks
the Actor. Thus, ergative case marks the Actors of both accomplishments
and activity verbs in Series II. Series III, on the other hand, is
stative and, accordingly, lacks true Actors, so even though the series

codes a result state, it has no ergative marking.

In Series I (Class 1 and 3) there is no result state, only activ-
ities and incomplete accomplishments. So in a sense Series I verbs
have a sort of diminished transitivity and, as a result, only one macro-
role. Based on this data it is easy to see that ergative is distrib-
utionally the most marked case, occurring in only two environments, and
therefore, with respect to the marking of Actor and Undergoer, nominative
is unmarked and ergative is marked. Although dative is probably the
least marked case, it never marks Actor or Undergoer. Overall, then,
it is possible to say that in order for an argument in Georgian to be
an Undergoer it must undergo a change of state or location or be in
some sort of state, all within the semantics of Undergoerhood as put
forth in FVV (60-63). In summary to this point, the distribution of
Actor and Undergoer is:

		Series		
		I	II	III
Class	1	A	A-U	U
	2	U	U	U
	3	A	A-(U)	(U)
	4	U	U	U

The distribution of macroroles mentioned above, then, interacts
with the RRG universal case marking principles (3.12) and a language-
specific rule for Georgian (3.13) to account for the Georgian case
patterns.

(3.12) a. If a clause contains a single macrorole argument, it is
            nominative.

        b. The default case for direct core arguments which are not

assigned macrorole status is dative.

(3.13) The Actor macrorole of a verb of Class 1 or 3 is ergative in

the aorist.

(Van Valin 1990).

It is now easy to account for the occurrence of pattern A ergative-

nominative marking and pattern B nominative-dative. Since Class 2

verbs have only one macrorole, by (3.12) it must be marked nominative.

Also, Class 1 and 3 verbs in Series I only have one macrorole which

also is predicted to be nominative by (3.12). And in Series II, when

two macroroles are present, the Georgian rule of ergative-assignment

determines the case marking.

3.2 Pattern C case marking

The occurrence of pattern C case marking is a little more involved

than is the distribution of ergative marking.

(3.14) rezo-∅ samajur-s ∅-ačukeb-s deda-s.

Rezo-N bracelet-D_1 $3sgD_1$-give-3sgN (I-1) mother-D

(Harris 1981: 117).

A comparison of (3.7) and (3.14) shows that when a Class 1 verb occurs

in the Series III perfect tense the nominal that is marked nominative

in the present tense (Series I) is now marked dative in the perfect.

Here rezo, semantically an agent, is marked by nominative case in Series

I (3.14) but by the dative in Series III (3.7). And, in reverse,

samajur, the dative marked theme argument in Series I is now marked

nominative in Series III. Similarly, Class 4 verbs in all series also

share this inverse case marking pattern; (3.8) and (3.9) are examples

of both transitive and intransitive Class 4 verbs which follow this

marking.

Harris explains pattern C case marking as a special instance of
pattern B where two syntactic rules have applied to the initial grammat-
ical relations. She claims that all Class 4 verbs and Series III verbs
in Class 1 and 3 trigger a syntactic rule of Inversion which makes the
initial subject an indirect object, also making any previous indirect
object a Chomeur. Then the initial direct object becomes the subject
through Unaccusative Advancement. She asserts that there exists a
semantic reason for triggering Inversion but does her best to avoid
clearly stating it. She notes that Class 4 forms a natural class of
"affective" verbs but then merely stipulates that class 4 verbs and
Series III forms of Class 1 and 3 verbs trigger Inversion. However,
Inversion is not triggered in Series III for all verbs. Class 2 verbs
remain unaffected, a characteristic Harris attributes to their initial
grammatical relations. Class 2 verbs take an initial 2 or direct object
and since the Inversion rule applies only to initial subjects, it follows
that class 2 verbs should not reflect pattern C case marking.

An RRG analysis of this data involves the lexical semantics of
the verb classes as presented in Chap. 2. Since all class 4 verbs are
stative verbs, they are characterized as taking a single macrorole
argument--an Undergoer. Thus, even though there are two arguments in
a clause like (3.8), only one can be Undergoer, and that determination
is made by appealing to the Actor-Undergoer Hierarchy. In (3.8) gela
is an experiencer and nino is a theme. This is determined by the verb's
LS, which takes both an experiencer and a theme argument. Based on the
hierarchy, it is clear that nino outranks gela for Undergoerhood and,
therefore, is marked nominative by (3.12). Similarly in (3.15) gela
is an agent and çigne is a theme. Again, a theme outranks an agent for

Undergoerhood, and so çigneb receives nominative marking by (3.12).

(3.15)   gela-s   çigneb-i   mi-∅-akv-s   samḳitxvelosi.

         Gela-D   books-N   PV-3sgD-take-3sgN (I-4)   reading room-in

         "Gela is taking the books into the reading room."

(Harris 1981: 129).

In both (3.8) and (3.15) gela remains a core argument but does not have

macrorole status. In both cases gela is marked dative by (3.12) for just

reason.

At first glance the intransitives of Class 4, such as (3.9), seem

to present problems since there is only one argument for macrorole

status, and since it is a dative marked argument, it would seem to

violate (3.12) by being both a macrorole and a dative argument. However,

Van Valin (1990) accounts for this by showing that in intransitives like

these the theme argument which seems to be missing has instead actually

merged with the predicate. So in (3.9) the first argument is the exper-

iencer and the second is the theme which is coded in the predicate by

way of (3.16).

(3.16)   Attributive/Identificational Predicate Creation: be' + theme --→

         predicate.

As a result there is n o nominal argument left overtly to assume macro-

role status. Yet with two arguments still coded on the predicate, the

theme is only realized by the -a (v- series) suffix. In (3.9) s- is the

m- series agreement marker for the dative argument. Thus, the agreement

morphology indicates that there are indeed two arguments coded on the

verb. And the dative argument cannot qualify for Undergoerhood since,

as an experiencer, it does not outrank the theme on the Actor-Undergoer

Hierarchy.

Pattern C case marking in Series III has a similar explanation. Earlier in this chapter it was shown that the Series III perfect involves a result state from some action and that this result state is coded with nominative marking. In fact, Series III can be said to involve a stativizing and detransitivizing of the predicate. As a result, like with Class 4 verbs, all verbs in Series III are said to be intransitive in regard to macrorole assignment. There can only be one macrorole and it must be Undergoer since the verb has undergone a process of stativization. The case marking for Series III verbs of Class 1 and 3 is then the same as for Class 4 throughout all series. In (3.7) rezo is an agent, samajur is a theme, and deda is a locative benefactive. Now the RRG macrorole marking principles apply. The theme samajur is the highest ranking argument for Undergoerhood as seen on the Actor-Undergoer Hierarchy. Since the Undergoer is the only macrorole in this stativized predication, it is then marked nominative by (3.12). Of the remaining two arguments the agent rezo outranks the locative deda for core status and thus is marked dative. Since Series III verbs can only take two core arguments, the remaining nominal must be marked by a postposition, in this case -tvis.

The remaining issue is to account for the lack of pattern C case marking with Class 2 verbs in Series III. Harris explains that, unlike Class 1 and 3 verbs which have an initial 1 which triggers Inversion, Class 2 verbs have an initial 2 and therefore are not affected by the Inversion rule. In the RRG analysis the process of detransitivization which occurs with Class 1 and Class 3 verbs in Series III does not apply since these verbs are already intransitive and have an Undergoer as their single macrorole (by definition of being achievement verbs). So

the Series III perfect can then be said to be a process by which a verb
with an activity predicate in its LS becomes detransitivized and stat-
ivized in order to emphasize the resultant state of a verb's action.

As Van Valin (1990) points out, however, there are some Class 2
verbs which do have inverse forms. Such a verb is in (3.17).

(3.17) se-m-civ-d-eb-a.

PV-1sgD-be cold-INCEP-SF-3sgN

"I will become cold."

(3.18) m-civ-a.

1sgD-be cold-3sgN

"I am cold."

(Aronson 1982: 344).

(3.17) is an inceptive derived from (3.18), a Class 4 verb. Van Valin
notes that Harris does not consider these verbs in her analysis. They
do not, however, create any problems for an RRG analysis. Class 2
verbs can be derived from Class 4 verbs through the addition of the
operator BECOME in the LS, BECOME be' (x, [cold']). This process does
not affect the arguments in the LS. Thus an RRG account predicts this
type of verb to show inverse case marking as well, something the RG
account neglects to do.

3.3 Conclusion

The case marking facts of Georgian, then, are all accounted for
in an RRG analysis. The inherent lexical semantics of verb class mem-
bership and tense series lead to a principled explanation of pattern A
case marking in Series II, whereas other accounts merely stipulate its
occurrence. This account also explains pattern C marking in similar
fashion and, in addition, accounts for more data than does Harris's

RG analysis.

Chapter 4

Valence-increasing Morphology:

Causatives and Version Objects

4.0 Introduction

One reason why purely syntactic descriptions of grammar (like Harris's of Georgian) seem inadequate is that they insist on imposing abstract syntactic rules on phenomena that are both empirically and intuitively clearly morphological in nature. Georgian in particular creates problems for theories which are exclusively syntactic in description--as is RG--because of its rich system of inflectional and derivational verbal morphology. As a result, no purely syntactic explanation of Georgian seems satisfactory. More recently some studies of Georgian have attempted to explain the grammar by focusing on the interface between morphology and syntax, thus explaining much of what Harris attributes to syntactic rules through a system of morphological rules instead (see, for example, Anderson 1984). This more recent type of study should be openly welcomed since it can lead to a far more satisfying explanation of a grammar by explaining morphologically that part of the data which is clearly morphological and explaining syntactically that part of the data which is clearly syntactic. Towards this goal, this chapter attempts to show how morphological processes can more economically account for much of Harris's data than does her own syntactic analysis. In particular, the significance of the link between Georgian morphology and syntax--or morphosyntax--will be shown through an analysis of causative and indirect object "version" structures.

4.1 Causative constructions

A typology of causative formation includes three primary poss-
ibilities: (1) synthetic causatives which are morphologically com-
plex and are formed by the fusion of a verb with some other morpho-
logical marker; (2) serial verb constructions; or (3) two-verb causa-
tives (or two-clause causatives) where the verbs are not contiguous
as they are in serial verb constructions (Comrie 1976). Both serial
verb and two-verb causatives allow inflectional marking to occur on
both verbal units. Clearly, Georgian causatives are not of this type
as they regularly form a single verbal unit with only one set of in-
flectional markings. Instead, Georgian causatives are prime examples
of purely synthetic or morphological causatives, always forming the
causative through the addition of one of the variations of the a-...
-ineb- verbal circumfix.

Harris (1981: 73-74) gives us the following examples of Class
1, 2, and 3 verb non-causatives and their corresponding causative
forms.

(4.1) bavšv-i   i-ʒin-eb-s.

       child-N   V-sleep-SF-3sg (I-1)

       "The child is sleeping."

(4.2) ubeduri šemtxveva-∅   xd-eb-a   baɣ-ši.

       unfortunate accident-N   happen-SF-3sgN (I-2) garden-in

       "An unfortunate accident happens in the garden."

(4.3) sportsmen-i varjiš-ob-s.

       athlete-N   exercise-SF-3sgN (I-3)

       "The athlete is exercising, training."

(4.4) deda-∅   bavšv-s   ∅-a-ӡin-eb-s.

      mother-N   child-D   3sgD-CAUSE-sleep-CAUSE-3sgN (I-1)

      "The mother is getting the child to sleep."

(4.5) paṭara bič̣-i   ∅-a-xd-en-s   ubedur

      little boy-N   3sgD-CAUSE-happen-CAUSE-3sgN (I-1) unfortunate

      semtxveva-s   ba -si.

      accident-D   garden-in

      "The little boy is causing an unfortunate accident to happen

      in the garden."

(4.6) mçvrtnel-i   sporṭsmen-s ∅-a-varjiš-eb-s.

      coach-N   athlete-D   3sgD-CAUSE-exercise-CAUSE-3sgN (I-1)

      "The coach is making the athlete exercise. / The coach trained

      the athlete."

The sentences in (4.1-4.3) are non-causative verb forms of intransitive
Class 1, Class 2, and Class 3 verbs, respectively. The sentences in
(4.4-4.6) are causative forms of (4.1-4.3). It should be noted that
the causatives are all realized as Class 1 verb forms, for the reasons
discussed in Chapter 2.

    Since Harris's analysis is carried out within a theory which
allows only syntactic rules, she therefore accounts for these causatives
purely syntactically--as a product of clause union. She treats the
Georgian causative as "having a complex (two clause) initial structure
and a simplex (single clause) final structure" (Harris 1981: 66), the
product of the fusion of the matrix and "retired" verbs. This fusion
is then realized morphologically as one of the variations of the cir-
cumfix a-...-ineb-. Finally, Harris proposes that all causatives are
Class 1 verbs because the matrix verb is a Class 1 verb. However, this

is an entirely ad hoc explanation. She offers no principled way of
explaining why causatives occur as Class 1 verbs, instead suggesting
that since the "retired" verb may be of a class other than Class 1,
then it must be the matrix verb which is Class 1 and thus responsible
for the occurrence of causatives as Class 1 verbs. This accounting of
causatives is similar to her analysis of inceptives in Chapter 2 and
ergative case marking in Chapter 3. In all cases she merely stipulates
that the facts occur as they do, without offering a more general and
complete explanation of why they occur as they do. On these grounds
Harris's explanation is inadequate, and thus the occurrence of all
causatives as Class 1 forms still needs to be satisfactorily explained.

Also central to any analysis are the causatives of transitive
verbs.

(4.7) mzia-m Ø-i-tamaš-a   nard-i.

       Mzia-E 3sgD-V-play-3sgN (II-3)   backgammon-N

       "Mzia played backgammon."

(4.8) mzia-s v-Ø-a-tamaš-eb   nard-s.

       Mzia-D 1sgN-3sgD-CAUSE-play-CAUSE (I-1)   backgammon-D

       "I am getting Mzia to play backgammon."

(4.9) mzia-s v-Ø-a-tamaš-e   nard-i.

       Mzia-D 1sgE-3sgD-CAUSE-play-CAUSE (II-1)   backgammon-N

       "I got Mzia to play backgammon."

(Harris 1981: 75).

In the intransitive causatives of (4.4-4.6) the causer argument is
cross-referenced on the verb by the v- series markers and the causee
argument by the m- series markers. In the transitive causatives of
(4.8, 4.9) the causer is also cross-referenced in the same manner, but

here the m- series markers cross-reference not the causee but rather the direct object nominal instead.

As stated previously, Harris describes the causative as having a two-clause initial structure and a single-clause final structure, the product of the fusion of the two verbs. This process comes about through the application of RG syntactic rules which determine the causative's final grammatical relations based on their initial two-clause grammatical relations. Her analysis is in keeping with the standard patterns of causative case marking as developed by Comrie (1976). According to Harris,the subject of the matrix verb remains the derived subject of the final causative. If the causative is intransitive the subject of the embedded verb becomes the direct object of the causative. However, if the causative is transitive, the following rules apply: the subject of the embedded verb becomes the indirect object of the causative; the direct object of the embedded verb remains the direct object of the causative; and the indirect object of the embedded verb becomes a non-term.

Harris advances four arguments in motivation of her analysis, three of which are designed to simplify the lexicon. First, without syntactic rules to derive final grammatical relations from their initial forms, each verb would not only have to be inventoried for the initial grammatical relations of its non-causative form but also for its causative form, which would also have to include the forms for both the transitive and intransitive embedded verbs. For example, a Class 3 activity verb might be inventoried for an initial subject and an initial optional direct object, while its causative form would have to be inventoried for a subject, direct object, and optional indirect

object. Secondly, selection restrictions for features such as animacy
of arguments would have to be listed for both causative and non-causa-
tive forms. A verb might take only an animate subject yet this same
restriction would then also have to be stated not on the subject but
rather on the direct object of the causative. Also, Harris claims
that "the rules that relate syntactic structures to semantic represent-
ations would have to be complicated" (Harris 1981: 72) since a nominal
holding a particular semantic relationship with a verb would be coded
both as subject or object, depending on its occurrence as a causative
or non-causative. Finally, in addition to these three lexical arguments
in support of a syntactic analysis, Harris also advances a fourth
argument based on reflexivization. She claims that only initial sub-
jects can control reflexivization. Thus, in causatives only matrix
verb subjects, embedded intransitive verb direct objects and transitive
verb indirect objects can control reflexivization since all these terms
were once initial subjects. The first three of these arguments will
be discussed later in this chapter following the RRG analysis of
causatives, while a discussion of the fourth argument will occur in
Chapter 6.

As mentioned earlier, since the Georgian causative is realized
merely as a verbal circumfix which derives a causative verb form from
verbs of other classes (a simple morphological process), there is no
evidence to warrant a purely syntactic explanation based on the fusion
of verbs. Thus, to analyze this construction as a result of the appli-
cation of rules between levels of syntactic analysis not only compli-
cates the explanation but also seems to miss the true nature of the
causative derivation. Instead an RRG analysis based on verb semantics

and semantic relations accounts for the data in simpler fashion and yet without the complications in the lexicon which Harris discusses.

The simpler RRG analysis is possible by mapping these causatives onto their logical structures and allowing the cline of the Actor-Undergoer Hierarchy to explain the patterns of case marking and nominal cross-referencing on the verb. As discussed earlier in Chapter 2, all causative verbs, whether derived or non-derived, are accomplishment verbs within the Vendler/Dowty scheme of verb classification and are characterized by the sentential connective CAUSE linking two abstract predicates, usually an activity verb and an achievement verb. And since all accomplishment verbs in Georgian are Class 1 verbs, then it follows that causatives derived from verbs of other classes through a morphological process will always be realized as Class 1 verbs. Thus, the RRG explanation for why causatives appear as Class 1 verbs, even when derived from verbs of other classes, follows directly in a principled way from a theory of verb semantics and requires none of the ad hoc reasoning found in Harris's RG discussion.

The logical structure of (4.9) is (4.10).

(4.10) [DO (I, [do' (I)]) CAUSE [BECOME play' (Mzia, backgammon)]

More precisely, this is not one but rather two logical structures joined by the connective CAUSE. Since do' and play' are both activity predicates, they both usually have one agentive argument (I, Mzia). However, in a causative construction the agent for superordinate DO outranks any other arguments for Actorhood; thus, I is the Actor and Mzia must be assigned other status. Mzia, however, is not automatically relegated to Undergoer status. Here the choice for Undergoerhood is now between the remaining arguments Mzia and backgammon, and since

backgammon, the locative argument of the embedded verb, outranks Mzia
for Undergoerhood on the Actor-Undergoer Hierarchy (a locative is more
of an Undergoer than is an effector), then backgammon is the Undergoer
in the construction. In other words, the second argument of a two-
argument activity verb will always outrank the first argument for
Undergoerhood. Thus, the Actor-Undergoer Hierarchy will always deter-
mine which two arguments of a three-argument causative verb construction
will be marked for Actorhood and Undergoerhood.

It should be noted that in Georgian there is no distinction made
between a voluntary and an involuntary causee. Recent data (personal
communication from Dee Holisky) has determined that the following
example can have either a voluntary or involuntary causee reading.

(4.11) Sergo-s v-∅-acrev-in-eb   bostneul-s.

        Serg-D   1sgN-3sgD-cut-CAUSE (I-1) vegetables-D

        "I'm having Serg cut vegetables."

This sentence can have the meaning of an involuntary causee who is
being forced to cut vegetables (e.g. with a gun to his head) or it
can just mean that the speaker is getting Serge (voluntarily) to help
cut the vegetables. The logical structure, then, of the embedded
predicate can contain DO for a voluntary causee or can occur without
it to indicate an involuntary or forced causee.

In a two-argument causative construction (with an intransitive
embedded verb) the cline of the Actor-Undergoer Hierarchy will still
predict the proper semantic roles for the arguments. The causative
of an intransitive, such as (4.6), has the logical structure (4.12).

(4.12) DO (coach, [do (coach)]) CAUSE [BECOME exercise' (athlete)]

Again, although both coach and athlete are normally agentive, the

argument of DO outranks all others for Actorhood, thus selecting <u>coach</u> as Actor and assigning <u>athlete</u> to other status. In (4.6), however, since there is no other argument of the embedded verb, <u>athlete</u> is selected as Undergoer. Finally, the nominal cross-referencing on the verb follows the predictions made by the Actor-Undergoer Hierarchy. The agent of DO, which can appear in either the nominative or ergative case, depending on the series in which it appears, is cross-referenced on the verb with the <u>v</u>- series markers, which as stated in Chapter 3 marks Actors whenever they are present. Similarly, just as the hierarchy predicts the Undergoer argument for causatives of both transitives and intransitives, these predictions are again supported by cross-reference affixing on the verb. Both the direct object of an embedded transitive verb and the causee of an embedded intransitive verb appear cross-referenced on the verb with the <u>m</u>- series markers. In short, then, for Georgian causative Class 1 verbs, the <u>v</u>- series marks the <u>m</u>- series marks the Undergoer.

Thus, the Georgian gausative is realized as a verb with accomplishment semantics (Class 1) in whose LS two logical structures and their operators are linked by the connective CAUSE. It is possible, then, to show that Harris's claim that it is only through a multi-leveled system of analysis with rules which alter grammatical relations that the Georgian causative can be adequately explained is contravened by the RRG analysis. The system of logical structures with abstract predicates and the Actor-Undergoer Hierarchy of RRG accurately predicts case marking and nominal cross-referencing on the verb. The occurrence of causatives as Class 1 verbs also follows in a principled way and is not dependent upon ad hoc stipulations in the explanation. The

complexities of a multi-layered analysis then cannot offer any more explanation than can the single-level analysis and, instead, even tend to miss generalizations about Georgian derivational morphology which do occur and can be explained in a theory concerned with verb semantics and semantic relations.

It can now be shown that Harris's lexical arguments in support of her analysis pose no problems for an RRG analysis. Harris asserts that since her analysis can account for the additional argument in the causative through the application of syntactic rules, only one lexical entry is necessary. There is no need to inventory both the initial grammatical relations of the non-causative and the grammatical relations of the causative structure. In an RRG analysis, however, the causative is explained just as simply and still without adding another lexical entry. By assuming a lexical or morphological rule of causative or accomplishment verb derivation which allows verbs of other classes to become causativized through the addition of a morphological circumfix (similar to the morphological rule which derives Class 2 inceptive verbs from verbs of other classes), both the syntactic and lexical components can remain extremely simple. The syntactic status of the additional argument then follows automatically from the Actor-Undergoer Hierarchy.

Harris's second argument is similar to her first, only here her concern is for the selection restrictions on the verb (data from Harris 1981: 71).

(4.13) gela-∅ çer-s   t̬axt̬-ze.

        Gela-N lie-3sgN (I-2)   couch-on

        "Gela is lying on the couch. / Gela lies down on the couch."

(4.14) mama-∅   gela-s   ∅-a-çve-n-s   ţaxţ-ze.

father-N   Gela-D   3sgD-CAUSE-lie-CAUSE-3sgN (I-1)   couch-on

"Father makes Gela lie on the couch." / "Father lays Gela on

the couch."

She states that (4.13) and (4.14) show that the restrictions on the

subject of a non-causative (gela) must be restated as restrictions on

the direct object (also gela) of the causative. However, this argu-

ment is significant only for a theory based on grammatical relations.

In an RRG account the restrictions imposed on gela in (4.13) are the

same as those imposed on gela in (4.14) because they both share the

same LS; (4.14) contains an additional LS joined to the LS of lie by

the sentential connective CAUSE.

Also,the fact that gela occurs in the same LS whether the sentence

is a causative or non-causative also undermines Harris's third argument.

She assumes that without her analysis a complicated set of rules would

have to be developed to relate syntactic structures to the semantic

representations. But this is where the economy of RRG is most evident.

In a single-level theory where the LS's are invariant there is no need

to account for the derivation of an argument's grammatical relations

through its various syntactic levels.

In an RG analysis the grammatical relations of all arguments must

be tracked through the multiple syntactic levels in order to indicate

the grammatical relations of all arguments at every level. For example,

in causative formation gela is a 1 (subject) in (4.13) but a 2 (direct

object) in the causative form (4.14), a result of causative formation

rules which state that the embedded clause's initial 1 becomes a final

2 in the matrix clause. By tracking these changes in grammatical

relations through levels of analysis, the theory records why gela as

a 1 "is lying" in (4.13) but can also occur finally as a 2 while hold-

ing this same semantic relationship with its predicate. Thus, an

argument can be shown to maintain the same semantic relation to its

predicate despite permutation of its grammatical relations.

However, this complex tracking of the interaction between gram-

matical relations and the relationship between a predicate and its

arguments is only necessary in a multistratal theory which has rules

based on grammatical relations. Thus, this presents no problem for

an RRG analysis in which there is only one level of grammatical rela-

tions and one of semantics. In RRG there is only one syntactic level

and the formation of causatives occurs at the level of logical struct-

ures with the connective CAUSE, not through syntactic derivations.

In the LS's of both (4.13) and (4.14) gela is then always the argument

of the predicate lie'. The argument remains invariant whether the

LS occurs alone as a Class 2 verb or linked by CAUSE to another LS

as a Class 1 accomplishment verb. Therefore, there is no need to

account for a different syntactic treatment involving grammatical

relations between the Class 2 verb and its Class 1 causative form.

So Harris's lexical arguments pose no problem for this analysis, and

her argument based on reflexivization will be shown in Chapter 6 to

pose no problems as well.

Georgian causatives, therefore, are prime examples of what Comrie

calls synthetic causatives, those derived through the grammar's verbal

morphology. It has been shown that these constructions can be more

fully explained within a theory which posits only one level of syntac-

tic analysis, and that to impose an abstract syntactic explanation,

as Harris does, is less economical in general and ultimately is reduced

to explaining in an ad hoc manner the occurrence of all causatives as

Class 1 verbs. It is instead much more accurate to explain these

causatives through a lexical rule which clearly reflects the valence-

increasing morphology of the Georgian verbal system.

4.2 Version constructions

Just as Georgian causatives are better explained through the

verb semantics and the valence-increasing morphology of the verbal

system, instead of by syntactic rules, so too are version structures--

sentences which include indirect objects. In fact, a theory based on

verb semantics can more concisely account for the following pairs of

sentences (from Harris 1981: 87).

(4.15) Benefactive version

    (a) gela-m še-∅-ķer-a   axal-i   šarval-i

        Gela-E PV-3sgN-sew-3sgE (II-1)   new-N   trousers-N

        šen-tvis.

        you-for

        "Gela made new trousers for you."

    (b) gela-m še-g-i-ker-a   axal-i šarval-i

        Gela-E PV-2sgD-VV-sew-3sgE (II-1) new-N   trousers-N

        (šen).

        you-D

        "Gela made new trousers for you."

(4.16) Possessive version

    (a) mzia-∅ ∅-çmend-s   di-s   pexsacmleb-s.

        Mzia-N 3sgD-cleans-3sgN (I-1)   sister-G   shoes-D

        "Mzia is cleaning her sister's shoes."

(b) mzia-∅ u-çmend-s   da-s   pexsacmleb-s.

Mzia-N VV-cleans-3sgN (I-1)   sister-D shoes-D

"Mzia is cleaning her sister's shoes."

(4.17) Superessive version

(a) gela-m surat-i   da-∅-xaṭ-a   dedel-ze.

Gela-E picture-N PV-3sgN-paint-3sgE (II-1)   wall-on

"Gela painted a picture on the wall."

(b) gela-m surat-i   da-∅-a-xaṭ-a   ledel-s.

Gela-E picture-N PV-3sgD-VV-paint-3sgE (II-1)   wall-D

"Gela painted a picture on the wall."

Harris argues that the (b) sentences are derived from the (a) sen-

tences through syntactic rules of benefactive version, possessive

version, and superessive version. These rules create an indirect

object term (a dative marked nominal) from the non-term marked by

either a postposition or the genitive case in the (a) sentences. The

vowels i-, u-, and a-, in the (b) sentences are side effects of the

version rule and therefore are left behind to act as version markers.

In the case of (4.16b) u- is a version vowel, the result of the morpho-

phonemic rule (4.18) whereby the indirect object agreement marker

combines with the version marker i- to yield u-.

(4.18) $\begin{Bmatrix} s- \\ h- \\ \emptyset- \end{Bmatrix} + i \longrightarrow u-$

by assuming that the (a) sentences are more basic and represent non-

derived forms from which the (b) sentences can then be derived, Harris

maintains that her argument presents the most economical explanation

possible for these sentences. And by deriving the dative-marked in-

direct objects of the (b) sentences from the non-terms in the (a)

sentences only one rule is involved. The alternative--showing that

the benefactive term is tied to the occurrence of the additional vowel

in the verb while the non-term postpositional argument is tied to the

lack of any marker on the verb--would require two separate rules and

therefore unnecessarily complicate the description.

4.21 Benefactive and possessive version

Harris's description represents a radical departure from the

traditional analysis of Tschenkeli (1958) and others. While Harris

treats the non-term tvis nominal and the version term nominal as an

alternation in benefactive semantics and the non-term genitive posses-

sive and the dative term possessvie also as an individual alternation,

the traditional approach has been to collapse this opposition between

benefactive and possessive in favor of an opposition between action

done for the benefit of the subject and action done for the benefit of

another. This traditional analysis accounts for the occurrence of

preradical vowels i- and u- in a vastly different way from Harris.

In the traditional analysis, preradical i- is the marker of the sub-

jective version, action done for the benefit of the subject (in Aronson

1982, this is the reflexive indirect object). Preradical u-, on the

other hand, is the marker of objective version and indicates action

done for the benefit of another. Thus, in the traditional analysis

both the possessive and benefactive relations can be expressed by the

same version vowel. It will be shown that the traditional analysis

cannot be completely ignored and that the opposition it entails is

crucial to any analysis of Georgian version objects.

One additional argument Harris advances to support the link between

non-term benefactive nominals and derived version objects involves the
following sentences.

(4.19)   *m-cioda   dedisa-tvis.

         1sg-cold (I-4)   mother-for

         "I was cold for my mother."

(4.20)   *skeli deda-s   v-u-qavi.

         fat   mother-D   1sg-VV-was (II-4)

         "I was fat for Mother."

(Harris 1981: 92-93).

Here she claims that since a Georgian Class 4 stative verb (as in 4.19)
is ungrammatical with a benefactive nominal then it logically follows
that a version object form of a similar sentence (4.20) is also ungram-
matical since there is no non-term present from which to derive a
term.   Thus, she argues that when a non-term benefactive is grammatical
so is its derived form and that when the non-term is ungrammatical so
is its version form.

What this data proves, however, has nothing to do with syntactic
rules that derive indirect objects.   Instead, the lack of a benefactive
nominal (whether it is a term or a non-term) occurring with a stative
verb is best and most economically explained through a theory of
lexical semantics.   It is entirely predictable that stative verbs will
not occur with any type of benefactive since the pivot argument of a
stative is non-agentive or non-volitional, and, therefore, the action
cannot be experienced intentionally for the benefit of another person.
Thus, the constraint which prevents stative verbs from occurring with
benefactives is not one of syntactic rules but rather of inherent verb
semantics which specify that agency is necessary for a benefactive

relation. An RRG analysis then explains exactly why (4.19) and (4.20)
are ungrammatical--Class 4 stative verbs do not take benefactives of
any kind--but Harris's RG analysis never explains this in any princi-
pled way.

Recent additional data from Holisky (personal communication),
however, poses still other problems for Harris's analysis. As just
mentioned, Harris maintains that sentences containing a non-term
benefactive nominal can also have a benefactive version from with a
derived term. However, Holisky gives us the following sentences.

(4.21)   mankan-a   ga-v-∅-recx-e   mis-tvis.

         car-N   PV-1sgE-3sgN-wash-AORIST (II-1) him-for

         "I washed the car for him."

(4.22)   mankan-a   ga-v-∅-u-recx-e.

         car-N   PV-1sgE-3sgN-VV-wash-AORIST (II-1)

         "I washed his car."

The usual meaning of (4.21) is that the speaker washed his own car
before lending it to another person. This is clearly a benefactive
interpretation in which the action is done for the benefit of another.
Following Harris's analysis, then, a syntactic rule should be able to
create the version form of the sentence with the same meaning. How-
ever, the addition of the version vowel u- and the deletion of the
-tvis nominal significantly alter the meaning. Now the sentence can
under no circumstances indicate a benefactive; instead, the version
form can only relate to possession. The speaker washed somebody else's
car, an action not specifically marked to benefit the other person.

The same semantic relationship between the -tvis nominal and a
version form occurs in (4.23) and (4.24).

(4.23) saxl-i dedis-tvis   da-v-∅-a-lag-e.

      house-N mother-for   PV-1sgE-3sgN-PR-clean-AORIST (II-1)

      "I cleaned the house for Mother."

(4.24) deda-s   saxl-i   da-v-∅-u-lag-e.

      mother-D house-N PV-1sgE-3sgD-VV-clean-AORIST (II-1)

      "I cleaned Mother's house."

(Data from Holisky, personal communication).

(4.23) cannot mean either that it was mother's house or that the speaker did it in place of his mother. It can only mean for her benefit, as if the speaker cleaned the house in preparation for her visit. However, the version form (4.24) can only mean that the speaker cleaned mother's house--this is strictly a possessive and cannot have a benefactive reading.

The pairs of sentences in (4.21-4.24) thus fall outside of Harris's description and cast doubt on her claim that sentences with a -tvis benefactive nominal can also occur with a version object, since this also requires a rule which accounts for the change in semantics. Although a derivational process definitely seems to be present here, an explanation is still needed to account for how the meaning can change between a clause with a -tvis nominal and its version form. It has been shown above that the meanings of the benefactive nominal and version sentences differ in at least two ways: 1) a -tvis nominal carries a benefactive reading while the version form can often only be taken as indicating possession; and 2) the direct object nominal in the -tvis sentences is possessed by the subject while the direct object nominal in the version forms must be interpreted as in the possession of the indirect object nominal.

Finally, Harris's claim that the two version nominals encode
different relations (i- = benefactive and u- = possessive) is very
questionable, as (4.25) indicates.

(4.25) bavšv-ma   xel-i   ga-i-cr-a.

      child-E   hand-N PV-VV-cut-3sgE (I-1)

      "The child cut his (own) hand."

(Aronson 1982: 371).

In the version form (4.25) it is clearly seen that the version vowel
i- indicates a possessive relation. As a result, there is doubt about
the validity of Harris's claim that different version vowels encode
different version relations. In this sense, then, the traditional
interpretation which collapses the two relations into one is upheld.

Clearly, the phenomenon of version objects in Georgian needs
further explanation, and it is doubtful that RG can adequately provide
it since the derivation of version forms from -tvis nominals, as Harris
presents the data, would require not only a syntactic rule but also a
meaning-changing rule--something which is not easily explained within
the confines of a syntactic theory.

A more complete explanation of the data should include the trad-
itional opposition of action to benefit the subject and action to
benefit another. In doing so, an analysis should also collapse the
opposition between benefactive and possessive version as put forth
by Harris. Within Harris's analysis there is no principled way to
account for whether a particular version nominal applies to benefactive
or possessive semantics since it has been shown that this is not readily
predictable from the non-version forms. Yet as (4.21-4.24) indicate,
what appears to be unpredictable is unambiguous to the native speaker,

and any grammar of the language should attempt to explain how the
native speaker always knows whether a version form applies to benefact-
ive or possessive semantics.

In the traditional analysis of version, i̱-, the marker of subject-
ive version, can indicate either a benefactive or possessive meaning
but is limited to action benefiting the subject. The objective version
marker, u̱-, can also indicate either meaning but is limited to action
benefiting "another" (not the subject). Harris does not give examples
of i̱- version morphology, but, when additional data includes this, then
the traditional analysis is better illustrated.

(4.26) ketkvan-ma sauzme-∅   ga-i-mzad-a.

        Ketevan-E   breakfast-N   PV-VV-prepare-3sgE (II-1)

        "Ketevan prepared breakfast for himself."

(Aronson 1982: 371).

(4.27) gela-m še-∅-u-ķer-a   axal-i šarval-i

        Gela-E PV-3sgD-VV-sew-3sgE (II-1)   new-N   trousers-N

        merab-s.

        Merab-D

        "Gela made new trousers for Merab."

(Harris 1981: 91).

In looking at typical examples involving i̱- version vowel occurrence
(4.25, 4.26) and u̱- version vowel occurrence (4.24, 4.27), the pattern
becomes evident. The occurrence of i̱- shows that the action designated
by the verb is done to or for the benefit of the "self" or subject.
In (4.26) ketevan has made breakfast to benefit himself. Similarly,
the only acceptable reading for (4.25) is that the child did the action
to himself. In (4.24) the possessive nominal cannot refer back to the

subject; the possessive must refer to the object, a reading indicated by the version vowel u-. Finally, in (4.27) u- indicates that someone other than gela must benefit from the action of the verb.

The semantic explanation for this type of version is that if the verb's action creates the real world object which follows then the version relation is benefactive. More specifically, this leads to the explanation that the version vowel i- followed by a creation object means that the reading must be benefactive. However, if the version vowel u- is attached to an activity predicate, the reading must be possessive.

However, any analysis of version is further complicated by the morphophonemic alternation (4.18) which in some cases makes it unclear whether the version vowel is u- or i-. Obviously, this is only a problem for linguists since the native speakers always know how to interpret version sentences. And, as shown previously in (4.21-4.24), the version form of a clause does not necessarily share the same seman-tic reading with its corresponding non-version form. However, since native speakers of Georgian always know whether or not a version form holds the same semantics as its non-version form, there must be a principled way for the grammar to account for this selection.

Based on the data in both Harris and this chapter, there seems to exist a primacy of the possessive interpretation over the benefactive reading. Although in sentences like (4.22) the version form has a possessive reading while its non-version form is a benefactive (4.21), in (4.15) both the version and non-version forms have benefactive readings and in (4.16) both forms have a possessive reading. The gen-eral rule for semantic interpretation here is that if the version form

can be read as a possessive (that is, if there is nothing in the seman-
tics of the clause to hinder this reading), then it must be read as a
possessive. However, if the possessive reading is impossible, then
the interpretation must be of benefactive semantics. In (4.22) and
(4.24) there is nothing to interfere with the possessive reading; his
car and mother's house are readings unconstrained by any predicate
semantics. In (4.15b), however, a possessive reading would be awkward
since the factitive object (trousers) comes into existence through the
action of the verb and therefore cannot already be possessed by the
beneficiary. Thus, the possessive reading is rejected and the bene-
factive reading must apply. In this way semantic constraints operate
to explain when the possessive reading is not allowed and a benefactive
reading must apply. Finally, it is then predicted that sentences
like (4.16) with a non-version possessive reading must have a version
possessive reading also since obviously no semantic constraints could
block the version form while allowing the non-version possessive form.

The traditional analysis of collapsing benefactive and possessive
version, then, is not without motivation and must be considered when
accounting for all the data. Harris's analysis becomes problematic
when version and non-version forms do not share the same meaning.
Clearly, at this point a mere syntactic explanation will not suffice
since semantic interpretation is involved. The only way for Harris to
link version and non-version forms together as she does in her analysis
would be to posit a rule which accounts for semantic change. However,
as this type of meaning-changing rule is incompatible with RG, her
analysis is questionable at best with much data unaccounted for.

An RRG analysis, however, eliminates the need for any syntactic rules in the explanation, instead allowing the data to be explained, like the causative, through the morphology of the verbal system. The additional vowel which Harris considers to be a version marker, a side effect of the application of a syntactic rule, is, in fact, just the opposite. It is a marker of a lexical rule and explains the differences between the postpositionally marked and dative marked nominals of the data. The vowel is a morphological valence increaser whose presence indicates the status of the nominal as a core argument in the version sentences. In the postpositionally marked sentences the verbs are characterized by their inherent lexical content which allows for only two core arguments. And since in these sentences only two core arguments are allowed with these verb forms, any additional arguments are non-core and must be marked by either a postposition or the genitive case. However, as the version sentences show, through the use of a valence-increasing vowel a third core argument can be added to the predicate. Thus, the valence-increasing vowel is a marker of a lexical rule, not a marker or side effect of a syntactic rule as Harris proposes.[1]

This analysis accounts for the multiple structures of an individual predicate. Since not all verbs are absolutely restricted to a single number of core arguments, it is not unreasonable to assume that for any given context a morphological process can indicate the exact number of core arguments for a predicate with potentially multiple valences.

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[1] For an in depth analysis of how this type of lexical rule works, see Jolly (1987) for an accounting of English for.

In Georgian, core arguments are cross-referenced on the verb, and thus the core status of the version nominals in the version sentences is indicated by -g- (2. person singular) in (4.15b) and ∅ (3. person singular) in (4.16b) and (4.17b).

In addition, the RRG analysis of the vowel affix as a signal of a valence-increasing lexical process sheds light on some of the other complex verb morphology. In particular, the preverbs are somewhat complicated markers which serve a number of functions, including indicating action directed away from or towards the speaker and distinguishing between the present and future screeves (Aronson 1982: 42). However, preverbs can also work in conjunction with valence-increasing vowels to indicate the number of arguments taken by certain predicates.

In the following group of sentences we see how the intersection of preverbs and valence-increasing vowels accounts for the number of core arguments which occur with a given predicate.

(4.28) çeril-i   mi-s-çer-a   ʒma-s.

        letter-N   PV-3sgD-write-3sgE (II-1)   brother-D

        "He wrote a letter to (his) brother."

(4.29) çeril-i   mi-s-çer-a   ʒmis-tvis.

        letter-N   PV-3sgD-write-3sgE (II-1)   brother-for

        "He wrote a letter to him for his brother."

(4.30) *çeril-i   mi-u-çer-a   ʒma-s.

        letter-N   PV-VV-write-3sgE (II-1)   brother-D

        "He wrote a letter to him for his brother." / "He wrote a letter to his brother."

(4.31) *çeril-i   da-s-çer-a   ʒma-s.

        letter-N   PV-3sgD-write-3sgE (II-1)   brother-D

"He wrote a letter to (his) brother."

(4.32) çeril-i   da-çer-a   ӡmis-tvis.

        letter-N   PV-write-3sgE (II-1)   brother-for

        "He wrote a letter for his brother."

(4.33) çeril-i   da-u-çer-a   ӡma-s.

        letter-N   PV-VV-write-3sgE (II-1)   brother-D

        "He wrote a letter for his brother."

(Harris 1981: 93).

Harris treats miçera ("write") and daçera ("write") as two dis-
tinct verbs, differing only in the number of arguments they are sub-
categorized for. Miçera takes an initial subject, direct object, and
indirect object while daçera takes only an initial subject and direct
object. Both verbs can take a benefactive nominal, as shown in the
(4.29) and (4.32) sentences, but only daçera may advance the benefact-
ive nominal to termhood, as shown by the grammaticality of (4.33) and
the ungrammaticality of (4.30). For Harris, then, a sentence like
(4.29) cannot undergo the rule of Benefactive Version because the in-
direct object position is already occupied by an argument whose overt
form has been deleted from surface structure by the rule of Unemphatic
Pronoun Drop, a rule which drops personal pronouns unless they are
either emphatic or non-terms. However, the presence of the dropped
argument is indicated by the affix -s- on the verb. Harris also argues
that any other analysis of the data will not be as economical as her
own and will require not one but rather two morphosyntactic rules,
one which accounts for the benefactive relation and the other which
accounts for the recipient "to-relation." She also claims that only
her analysis treats the benefactive relation as derivative and marked

and the "to-relation" as basic and unmarked. This last point is of major importance to Harris, because it considers to be unmarked what is a more universal structure (the "to-relation") and marks the less common structure.

Harris's claims, however, are problematic in certain crucial respects. Instead of needlessly cluttering the lexicon with two or more entries of the same verb, differing only in subcategorization frames designating initial relations, it would be more desirable to have only the stem -çer- in the lexicon and to allow a richer theory of derivational morphology to account for its various forms. In fact, in Harris's analysis -çer- would slso require two additional entries to account for its occurrence as a Class 2 verb with potentially only one subcategorized argument, as in (4.34) and as a simple Class 3 verb, as in (4.35).

(4.34)   da-i-çer-eb-a.

PV-V-write-SF-3sgN (I-2)

"It will be written."

(Aronson 1982: 61).

(4.35)   çer-s.

write-3sgN (I-3)

"He is writing."

(Holisky 1981b).

In (4.34) -çer- occurs with only one core argument as is characteristic of Class 2 verbs. In Harris's analysis, this would require a third subcategorization frame in the lexicon. In (4.35) -çer- also occurs with only one core argument, but here it is an agentive Class 3 verb. Again Harris must enlarge the lexicon, this time by listing

-çer- with one argument twice, once as a Class 2 passive and again as
a Class 3 activity verb. However, it is much more economical to allow
the semantics of verb classes and preverbs to explain the valences of
all forms. The accomplishment semantics of Class 1 verbs require two
core arguments (three when accompanied by the preverb mi-), while the
semantics of Class 2 verbs allow for only one argument.

In (4.32) dacera takes the minimum number of core arguments (two)
allowed by Class 1 accomplishment semantics. Here the third argument--
a benefactive nominal--occurs as a peripheral argument marked by the
postposition -tvis. However, through the addition of the valence-
increasing vowel u- the benefactive nominal occurs as a core argument
in (4.33). Thus the valence-increasing vowel occurs in conjunction
with the da- preverb to control the number of core arguments accepted
by the verb. The ungrammaticality of (4.31) shows that da- without a
valence-increasing vowel cannot take a third core argument; the affix
-s- which codes the third argument on the verb is where the ungrammat-
icality lies.

Unlike da-, the preverb mi- carries with it the semantics of the
dative "to-relation." Because of this inherent semantic content this
preverb serves as a marker indicating that a third cross-referenced
argument is mandatory for the verb forms with which it occurs. (4.28)
exemplifies this structure which marks the "to-relation" nominal on
the verb. (4.29) shows how a peripheral benefactive nominal marked
by -tvis can be added to the sentence. Although here the dative marked
"to-relation" nominal does not overtly appear, it is still cross-ref-
erenced on the verb. Finally, (4.30) shows the ungrammaticality of
the preverb mi- occurring in conjunction with a valence-increasing

vowel. Since the verb has already had its valence of three core arg-
uments saturated, the presence of a valence-increasing vowel leads to
ungrammaticality. Thus, preverbs and valence-increasing vowels work
in conjunction with each other to explain and encode both inflectional
morphology, as in difference between the sentences in (4.28-4.30) and
those of (4.31-4.33), and the more subtle distinctions of version, such
as the difference between (4.32) and (4.33).

Finally, a rule like Unemphatic Pronoun Drop is not needed to
explain the occurrence of the marker (-s-) in (4.29) which indicates
the dative marked "to-relation" nominal. Instead, the presence of this
third argument must be present as a part of the structure of the pre-
dicate, whether it overtly appears or not.

An RRG analysis also leaves intact Harris's assumption about the
markedness of the structures. When occurring without a preverb, -çer-
indicates a Series I present tense form; however, when it occurs with
a preverb, it is either a Series I future tense form or a Series II
aorist form. The selection of which preverb applies is merely a product
of the inflectional system which codes the number of core arguments.
Since miçera already has reached its Class 1 maximum valence of three
core arguments, the benefactive argument must always be considered per-
ipheral. However, with daçera the benefactive relation can be marked
for core status by a valence-increasing vowel. In no way is the core
"to-relation" of (4.28) and (4.29) ever considered to be a marked form.
It is always an unmarked form whose occurrence is indicated simply by
the morphology of the verb.

4.2.2 Superessive version

Another problematic area in Harris's analysis of version objects
is inherent in her treatment of version sentences as derived forms of
sentences with postpositionally marked arguments. In order for the
version forms to be derived by a syntactic rule from a more basic
form, the two sentences must agree entirely in meaning or else a mean-
ing-changing rule would also have to be assumed to account for the
semantic difference between the two forms. Obviously, there are no
such rules contained within a framework of RG. Thus, Harris's anal-
ysis is only valid if both the version and non-version forms have the
same meaning, and this is exactly her claim. The problem with Harris's
analysis, however, is that this consistency in meaning is not always
present, although she indicates it is in (4.17a) and (4.17b), an exam-
ple of superessive version. Instead, there exist more subtleties with
superessive version than she indicates.

In the following examples the sentence with the postpositional
phrase marked by -ze can have two meanings but only one of which can
be expressed by the superessive version form.

(4.36) çeril-i   magida-ze   da-v-çer-e.

        letter-N table-on/at   PV-1sgE-write-AORIST (II-1)

        "I wrote the letter on the table." / "I wrote the letter at
        the table."

(4.37) çeril-i   magida-s   da-v-∅-a-çer-e.

        letter-N table-D   PV-1sgE-3sgD-VV-write-AORIST (II-1)

        "I wrote the letter on the table."

(Holisky, personal communication).

(4.36) can mean either that the table is merely where the writer was

sitting while writing the letter or that the letter was actually written

on the table top (that is, the words were printed directly onto the

surface of the table top). The version form (4.37), however, can only

mean that the words were printed directly on the table. It can never

mean that the letter was merely written at the table. According to

Harris's analysis this version form should hold the same semantic

content of the postpositionally marked form; however, the meaning of

the version form is definitely more limited and specific than is the

non-version form. So although there may be a one-to-one correspondence

between the syntactic structures of version and non-version forms, there

is obviously no such symmetrical correspondence between the semantic

structures of the two forms. Thus, there remains a very common adverb-

ial of place semantic structure which can never occur as a version

sentence. It remains for Harris to explain how an RG analysis accounts

for why a version form of one non-version sentence (meant to indicate

merely where the writer was sitting while writing the letter) can

only mean something different from the sentence from which it is derived.

This could only be done in one of two ways. Harris would have to

allow for a meaning-changing rule, something unprecedented in RG,

which operates in conjunction with the syntactic rule in order to gen-

erate the version form. In addition, this meaning-changing rule would

have to be somehow designated to apply only to certain semantic struct-

ures since many version forms can obviously be generated without ref-

erence to a meaning-changing rule. Another option would be to admit

that not all non-version sentences with indirect objects have a version

form which carries the same meaning. But for this to be the case all

non-version sentences with indirect objects would have to be inven-
toried to indicate which can, in fact, occur as version forms.   In
either analysis an explanation based on semantics would have to be
developed to explain all the data, and this would not seem possible
within the framework of RG.

An RRG analysis, however, can explain more completely the occur-
rence, and the limitations on the occurrence, of sentences with super-
essive version. More specifically, it will predict which semantic
structures can be expressed through version derivation and which
cannot. At the root of this explanation lies the distinction between
inner and outer locative arguments. Outer locatives are those peri-
pheral arguments which indicate the location of the entire event.
(4.38) Fred put on his meatloaf costume in the upstairs bathroom.
In (4.38) in the upstairs bathroom is an outer locative; that is, it
indicates the location of the entire event, both the action and its
arguments. This can be contrasted with the locative in (4.39), a
peripheral argument which indicates the location of one of the argu-
ments in the event and not the entire event itself.
(4.39) Fred sprayed insect repellent on Chomsky's lecture notes.
Here on Chomsky's lecture notes indicates only the location of the
argument insect repellent. Structurally the difference between (4.38)
and (4.39) is that the locative of (4.39) occurs as a part of the
logical structure of the verb. Here spray acts as any transfer verb
in that its logical structure can include a locative argument which
indicates the new location (Chomsky's lecture notes) of one of the
core arguments (insect repellent). The locative of (4.38), however,
in the upstairs bathroom, is not a part of the logical structure of the

verb put on and is thus considered more peripheral and less related to the verb--in short, an outer locative. The LS for (4.38) is (4.40) and the LS for (4.39) is (4.41).

(4.40) be-at' ([DO (Fred, [put on' (Fred)])], bathroom)

(4.41) [DO (Fred, [spray' (Fred)])] CAUSE [BECOME be-at' (bug repellent, Chomsky's lecture notes)]

This distinction between inner and outer locatives is exactly what characterizes Georgian version objects. In Georgian, only sentences or interpretations of sentences as inner locatives have corresponding version forms. In (4.17a) and (4.17b) kedel- ("wall") is an inner locative indicating the location of the core argument surati ("picture"). Obviously, kedel- is not a locative which indicates the setting for the entire event since gelam cannot in any sense be "on the wall." In Georgian it is only this type of locative--an inner locative--which can also be expressed in version form with a dative marked nominal, as seen in (4.17b). As (4.36) and (4.37) indicate, however, only the inner locative reading of (4.37) can also be expressed by a version object. To read the sentence with the outer locative at the table is to limit the occurrence of the locative argument to postpositionally marked status. The LS's for (4.36) and (4.37) are exemplified by (4.40) and (4.41). These examples clearly show that the occurrence of superessive version objects is directly linked to the semantic structure of the verb itself, an explanation which is afforded only through an RRG analysis.

Superessive version arguments, then, can be seen as yet another example of Georgian's valence-increasing morphology. When an argument is expressed through superessive version, it has been promoted

to core status. That this version argument is indeed a core argument is indicated by two types of syntactic evidence. First, in Georgian, core arguments are coded on the verb either through person marking, preverbs (as in the preverb mi-, which indicates a third core argument), or valence-increasing version vowels. In the superessive version examples of (4.17b) and (4.37) the status of the inner locative argument as a core argument is indicated by the presence of the valence-increasing vowel a-, which is not found in the verbs of sentences characterized by a postpositionally marked locative argument. Although Harris treats a- as a mere side effect of a syntactic rule deriving version objects, its occurrence is crucial to superessive version since it upholds the consistency in the grammar that all core arguments are encoded on the verb.

Secondly, in the version examples the occurrence of the locative argument as a case marked nominal also indicates its status as a core argument. As shown before, since core arguments are case marked in Georgian if they appear overtly, version object sentences are the result of lexical rules which advance postpositionally marked arguments (peripheral arguments) to core status. Thus, both the case marking of the locative argument and its cross-referenced coding on the verb show that version objects are core objects and offer further evidence for positing a system of valence-increasing morphology for the Georgian verbal system. This represents the only principled explanation for the occurrence of these version objects.

4.3 The outer limits

In a grammar with a very rich system of valence-increasing morphology, the question arises as to how much verb-encoded morphology is

too much. There must come a point, particularly in a head-marking language, where the number of cross-referenced arguments becomes overly complex for the verb system. The intersection of causative formation and version derivation reveals these limitations in Georgian.

In (4.40) we see both causative formation and a postpositionally marked (-tvis) benefactive nominal.

(4.40) vano-m še-∅-a-ķer-in-a   gela-s

        Vano-E PV-3sgD-CAUSE-sew-CAUSE-3sgE (II-1)   Gela-D

        axal-i šarval-i   šentvis.

        new-N   trousers-N you-for

        "Vano made Gela sew new trousers for you."

It is interesting to note here that this sentence cannot occur with the benefactive nominal as a case marked version object, lending further counter-evidence to Harris's claim that for every benefactive nominal marked by a postposition there is a corresponding version form. Instead a constraint of Georgian grammar--that there can be no more than three core arguments--is in effect here and prevents the occurrence of a case marked version argument. Because causative formation has already increased the valence of the verb to its maximum of three core arguments, the benefactive nominal can only be expressed in its non-version, non-core form. And it is not surprising that core argument creation of causatives takes precedence over version object creation since there exists the mechanism to express the benefactive relation in either the version or postposition forms without a change in meaning. Since causatives can be realized in only one way, as a core argument, it is understandable that they should control the creation of the third core argument. Version benefactives do, however, occur in four argu-

ment clauses when one other argument is marked by a postposition.

(4.41) gela-m vano-s surat-i   da-∅-u-cat-a

        Gela-E Vano-D picture-N   PV-3sgD-VV-paint-3sgE (II-1)

        kedel-ze.

        wall-on

        "Gela painted the picture on the wall for Vano."

Here the benefactive argument (Vanos) occurs as the third core argument

because the locative argument (kedelze) is marked by the postposition

-ze. The important point here is that Georgian grammar will allow a

maximum of only three core arguments and that it is the interaction

of the various valence-increasing processes which determine which

additional argument is promoted to core status.

    In (4.43-4.47) the interaction between causatives and version

arguments can be further explored.

(4.43) zaɣl-ma da-u-qep-a   Vano-s.

        dog-E   PV-VV-bark-3sgE (II-3)   vano-D

        "The dog barked at Vano."

(4.44) gela-m da-a-qep-a   za l-i.

        Gela-E PV-CAUSE-bark-3sgE (II-1)   dog-N

        "Gela made the dog bark."

(4.45) mezobɣ-is   za l-i xsirad   mi-qep-s.

        neighbor-G   dog-N   often   PV-bark-3sgN (I-3)

        "The neighbor's dog often barks at me."

(4.46) gela semo-a-∅-qep-in-a   zaɣl-s   cemtvis.

        Gela-E PV-CAUSE-3sgD-bark-CAUSE-3sgE (II-1) dog-N   me

        "Gela made the dog bark at me."

(4.47) *gela-m   da-∅-a-u-qep-a   zaɣl-i vano-s.

       Gela-E   PV-3sgD-CAUSE-VV-bark-3sgE (II-1)   dog-N   Vano-D

       "Gela made the dog bark at Vano."

The distinction between (4.42) and (4.43) is similar to that of (4.32)

and (4.33), the main difference being that while çer has a valence of

two arguments (before the valence-increasing process to allow for the

benefactive argument) qep has a normal valence of only one argument,

as is common with many Class 3 verbs. In (4.43) the additional argu-

ment is coded on the verb with the valence-increasing vowel u-, similar

to the u- in (4.33). However, just as the preverb mi- is used in

(4.28) to indicate the locative recipient of the letter, so can this

preverb in (4.45) indicate the directional locative of the barking.

Also, just as mi- codes the benefactive of (4.29) as a core argument

even though it does not overtly appear, so too does the mi- in (4.45)

indicate the core status of the locative argument (1. singular, the

speaker) although it does not overtly appear either.

    (4.44) is an example of a simple causative indicated by the pre-

sence of -a-, the causative affix and valence-increaser. While (4.43-

4.46) are all well-formed grammatically, it is at the intersection of

these two valence-increasing processes that an intransitive Class 3

verb like qep reveals its limitations. As evident in (4.47) the occur-

rence of two types of valence-increasing morphology, causative for-

mation and version, are incompatible and yield an ungrammatical sen-

tence with three core arguments. While three core arguments can occur

with a Class 1 verb, as in (4.28), two is the maximum allowed with

qep, a Class 3 verb which normally has a valence of only one core

argument. As seen in (4.46), however, there is a grammatical way to express both the causative and the directional locative. The causative circumfix a-...-in allows the causer argument to appear as a core argument, but the locative must then occur as a nominal marked by the postposition -tvis. The preverb mo- indicates not core argument status for the locative but rather direction of the action towards the speaker (Aronson 1982: 42). As seen earlier, the presence of causative formation takes precedence over version for the creation of core arguments.

Thus, the grammar of Georgian contains the mechanism necessary to control the number of core arguments accepted by a verb. Without such constraints on the grammar the structure of the verb and its morphology would become too overly complex for the head-marking cross-referencing of arguments. It has been shown that the subcategorized valence of a verb can be increased by one argument through one of several very productive processes and that when two of these processes interact the selection of which produces a new core argument proceeds in a principled manner.

Chapter 5

Passivization

5.0   As explained in the previous chapter the Georgian grammar

possesses a very rich system of derivational morphological processes

which increase the valence of a verb and, depending on the process

involved, may derive verbs of one class from those of another class.

In similar fashion, Georgian also possesses the lexical or morphological

mechanism for decreasing the valence of a verb while either altering

the verb series or, again, deriving verbs of one class from those of

another.   One such process already explained is inversion (chap. 3).

Another is passivization.

Traditionally both the (b) and (c) sentences of (5.1-5.2) have been

considered passives (Harris 1981: 192-193).

(5.1) (a)   vano-∅   ∅-a-xrč-ob-s   rezo-s.

            Vano-N   3sgD-PR-drown-SF-3sgN (I-1)   Rezo-D

            "Vano is drowning Rezo."

      (b)   rezo-∅   i-xrč-ob-a.

            Rezo-N   PR-drown-SF-3sgN (I-2)

            "Rezo is drowning."

      (c)   rezo-∅ da-mxrčval-i-a   vano-s   mier.

            Rezo-N PV-drown-PRES-3sgN (I-2)   Vano-G   by

            "Rezo is drowned by Vano. / Rezo has been drowned by Vano."

(5.2) (a)   paṭron-i   ∅-a-tb-ob-s   otax-s.

            landlord-N   3sgD-PR-warms-SF-3sgN (I-1)   room-D

            "The landlord heats the room."

      (b)   otax-i   tb-eb-a.

          room-N   warms-SF-3sgN (I-2)

          "The room is warning up."

     (c) otax-i   ga-mtbar-i-a   patron-is   mier.

          room-N   PV-warms-PRES-3sgN (I-2)   landlord-G   by

          "The room is heated by the landlord."

Due to the obvious differences in the verb morphology and surface syn-

tactic representations, Harris makes a distinction between these two

types of passives, referring to the (b) examples as "synthetic" passives

and the (c) examples as "analytic" passives (Harris 1981: 192). Anal-

ytic passives, according to Harris, are derived from Class 1 direct

verbs, such as the (a) examples, and from a subclass of Class 3 verbs

which have a direct object and behave like Class 1 verbs syntactically,

by the RG rule of passivization whereby the initial subject is demoted

and becomes a final retired term marked by the postposition mier.

Following this demotion, the initial direct object becomes the final

subject.

     Synthetic passives in (b) differ from analytic passives in their

inventory of initial relations. There is no initial subject for these

passives but, rather instead, only an initial direct object which is

then advanced to final subjecthood through Unaccusative Advancement.

In this RG analysis it is crucial that these two passives be considered

distinct and not of common derivational origin since their inventories

of initial grammatical relations are so different from each other, as

well as are the syntactic rules with which they are derived. Thus, the

analytic passives are derived from Class 1 verbs, but the origin of

synthetic passives is somewhat more sketchy. Harris claims that they

are formed from the same "abstract verb" as are analytic passives, yet she never clearly states that they are derived from Class 1 verbs (Harris 1981: 194-195). And since synthetic passives have initial grammatical relations quite different from direct forms and analytic passives, it would seem that they must be different verbs, inventoried in the lexicon for very different initial grammatical relations.

This confusion which arises as to whether these verbs represent two forms or only one verb form in the lexicon is similar to the treatment of çer, daçer, and miçer in the previous chapter. It is both intuitively and empirically unsatisfying to claim that verbs formed from a common root yet inflected for a different number of arguments are not, in fact, the same verb. The only motivation for considering the verbs as separate verbs is to avoid compromising the abstract system of syntactic rules by providing counterexamples. And since the only way to insure that the syntactic rules remain pure and consistent is to assign different initial grammatical relations to its forms, then the verbs must be considered different.

A more satisfying explanation if to consider both passives as derived forms of the exact same root verb--its Class 1 form. In past traditional Georgian analyses the "synthetic" passive is considered a middle voice construction while the "analytic" is the expression of passive voice. This distinction can help in developing an account of the data in (5.1-5.2) as examples of a voice distinction involving only one verb form.

In FVV (149-168) a typology of passive constructions is presented based upon a distinction between backgrounding and foregrounding passives. Most commonly backgrounding passives are detransitivized

and often stativized forms of what are normally transitive verbs.
In these passives the Undergoer argument becomes the pivot and the Actor
is eliminated completely from the clause.   Foley and Van Valin also
point out that passives such as these are often referred to as medio-
passives or middle voice instead of as passives.   The foregrounding
passive, on the other hand, functions as an aid to clause linkage in
discourse by allowing non-Actor arguments to become the pivot of the
clause.   In these passives the Actor may still be present either as a
non-pivot core argument (which is somewhat rare) or, more commonly, as
a peripheral argument.

The Georgian "synthetic" and "analytic" passives are examples of
both backgrounding and foregrounding passives.   The "synthetic" passive
has all the characteristics of backgrounding passives.   In (5.1.b) and
(5.2.b) only the Undergoer argument is present, the Actor having been
eliminated completely from the clause.   As Harris points out, the "syn-
thetic" passives "are a subset of the forms characterized in the present
tense by one of the circumfixes i--ebi, e--ebi, or ∅--ebi" (Harris
1981: 194).   It can, therefore, be said that the "synthetic" or back-
grounding passive involves a lexical process of stativization which is
marked on the verb by one of the above circumfixes.   Also, as mentioned
earlier, these backgrounding passives are detransitivized forms of
transitive verbs.   This is certainly the case for these Georgian "syn-
thetic" passives.   Through a lexical process the Actor argument of a
Class 1 verb is eliminated, thus leaving only the Undergoer in a detran-
sitivized clause.

In RRG terms, this lexical process is explained in the altering of
logical structures.   As outlined in Chapter 2 the logical structure of

a Class 1 accomplishment verb actually consists of two logical structures

linked by the connective CAUSE, as in (5.3), where the first logical

structure is usually an activity predicate and the second an achievement

predicate.

(5.3) (DO [predicate' (x)]) CAUSE (BECOME [predicate' (x)])

Here the backgrounding process is most easily explained. By way of a

lexical rule, the Class 2 passive form is derived from the Class 1 verb

when the first logical structure (the activity predicate) and, by exten-

sion, CAUSE are stripped off the two-unit structure. What is left is

simply the logical structure of a Class 2 achievement verb with only

one core argument (an Undergoer). Thus the derivation of detransitivized

Class 2 backgrounding passives from Class 1 verbs is clearly explained

in an RRG analysis. What is most important here, however, for theoret-

ical debate, is that this RRG analysis both predicts and explains why

passives must occur as Class 2 verbs in Georgian--because Class 2 verbs

have BECOME as an abstract predicate or operator. No other analysis

can quite so completely illustrate this lexical process.

The "analytic" or foregrounding passive differs slightly from the

backgrounding passive just mentioned. In Georgian, foregrounding

passives, as exemplified by the (c) examples, are formed by the past

passive participle and either the auxiliary verb qopna ("to be") or the

auxiliary verb become (Harris 1981: 203-204). They allow the Actor to

overtly occur in the clause but only as a peripheral argument marked by

the postposition mier. The genitive case marking which occurs on the

demoted Actor is characteristic of mier nominals and does not mark core

arguments. So although the Actor remains overtly in the clause, its

non-core status indicates that the Undergoer argument has assumed the

focal role of pivot. Thus, the semantics of these foregrounding passives are not so much towards stativization but rather towards the highlighting of non-Actor arguments. These foregrounding passives are more easily observed to derive from Class 1 verbs since the Actor is not eliminated completely.

Both types of passives, then, are formed from the same "direct" verb and differ only in their syntactic representations, a manifestation of the distinction in voice between "true" passives and what are often called middle voice verbs. By not assuming that the verbs of these two passives must have differing initial grammatical relations, this analysis is made possible, and so it therefore avoids the need to clutter the lexicon with multiple entries of the same verb. Most importantly, this analysis, based on the logical structures of the verbs accounts for the occurrence of passives as Class 2 verbs just as it has already predicted causatives to occur as Class 1 verbs and inceptives as Class 2 verbs. Thus, there are no ad hoc stipulations as to why verbs are realized in the classes that they are.

5.2 Passives and Indirect Objects

Finally, the occurrence of indirect objects in Georgian needs to be addressed. (5.4) typifies the "direct" or active construction and (5.5) is its corresponding passive.

(5.4) vašl-s   mi-s-cem-s   mascavlebel-s.

        apple-D_1 PV-$3sgD_2$-give-3sgN (I-1)   teacher-D_2

        "He will give an apple to the teacher."

(5.5) vašl-i   mi-cem-uli-a   mascavleblis-tvis.

        apple-N   PV-give-PART-3sgN (I-2)   teacher-for

        "The apple is given to the teacher."

(Harris 1981: 103).

In (5.4) the indirect object occurs as a dative-marked nominal; however, in the corresponding passive structure it is demoted to "non-term" status, as indicated by its -tvis marking. For Harris (1981: 112-113), this demotion does not carry with it any obvious explanation of how the nominal in question is put en chomage. Without reaching any certain conclusion, she assumes that it might be easy to write an additional rule for Georgian which allows for "spontaneous chomage." However, a language-specific rule of this type would appear to violate the universal principles of the Chomeur Law. As a result, it is difficult for Harris to explain this demotion within a framework acceptable to RG.

In an RRG analysis, however, this demotion is easily predictable. Since the result of passivization is a Class 2 verb (as shown throughout this chapter), which can take only one core argument, the demotion of the indirect object to a non-core -tvis marked nominal follows automatically.

Chapter 6

Reflexivization

6.0   Georgian reflexivization offers a further example of the dif-
ferences between a purely syntactic account, as afforded by RG, and
an account such as afforded by RRG, which is based both on syntactic
and on semantic criteria. Harris's is a complex one which in some
areas requires extra stipulations to account for the data. Her anal-
ysis is based on syntactic rules and constraints which apply at various
levels of syntactic representation. An RRG account, on the other hand,
can explain Georgian reflexivization through only one generalization
and, since it assumes only one level of syntactic representation, need
not mix syntactic rules occurring at one level of representation with
syntactic constraints which can only operate at a different level of
analysis. It is assumed here that an explanation with fewer stipula-
tions and one not requiring operations at various syntactic levels is
much more desirable than one which does.

In Georgian the reflexive takes two forms: 1) tav- is the root
marker of a reflexive pronominal which is realized as cemi tave (1.
person), seni tavi (2. person), and tavaisi tavi (3. person); and 2)
tavis-/taviant- are the singular and plural markers of possessive re-
flexivization (Harris 1981: 23). These pronouns act as any other
nominals and can be marked for case regardless of whether they
are core or peripheral arguments. Examples of the reflexive pronoun
tav- are indicated in (6.1-6.4) (from Harris 1981: 24).

(6.1) vano-∅ ∅-i-rçmun-eb-s   tavis tav-s.

       Vano-N 3sgD-PR-convince-SF-3sgN (I-1) self's self-D

"Vano is convincing himself."

(6.2) vano-Ø   Ø-e-laparak̟-eb-a   tavis   tav-s.

     Vano-N   3sgD-PR-talk-SF-3sgN (I-2)   self's self-D

     "Vano is talking to himself."

(6.3) vano-Ø   Ø-pikr-ob-s   tavis   tav-ze.

     Vano-N   3sgD-think-SF-3sgN (I-3)   self's self-on

     "Vano is thinking about himself."

Here reflexivization occurs with verbs of the first three classes and is always coreferential with the "subject" nominal. In (6.1) and (6.2) the reflexive nominal is case marked dative and in (6.3) it occurs as a non-core nominal marked with the postposition -ze. Harris then uses (6.4-6.6) to show that it can only be the subject which is coreferential with the reflexive pronoun.

(6.4) mcat̟var-i da-Ø-xat̟-av-s   vano-s tavistvis.

     painter-N PV-3sgD-paint-SF-3sgN (I-1)   Vano-D self-for

     "The painter$_i$ will paint Vano$_j$ for himself$_i$."

(6.5) nino-Ø   Ø-a-čven-eb-s   patara givi-s   tavis

     Nino-N   3sgD-PR-show-SF-3sgN (I-1)   little Givi-D   self's

     tav-s   sarkesi.

     self-D   mirror-in

     "Nino$_i$ is showing little Givi$_j$ herself$_i$ in the mirror."

(6.6) vano-Ø   givi-ze Ø-e-laparak̟-eb-a   tavis   tav-s.

     Vano-N   Givi-on 3sgD-PR-talk-SF-3sgN (i-3)   self's self-D

     "Vano is talking to himself about Givi."

In (6.4) the reflexive pronoun can only be coreferential with mxatvari; it cannot grammatically refer to vanos. Similarly, in (6.5) the reflexive can only refer to nino and not to givis. Finally, in (6.6)

the reflexive can refer only to vano and not to givize. Harris offers

(6.1-6.6) as evidence that tav- reflexivization can only be in core-

ference to the subject nominal and is blocked from referring to any

other nominal in the clause.

Harris also posits a clausemate constraint to account for core-

ference in sentences like (6.7) Harris 1981: 25).

(6.7)   vano-∅   pikr-ob-s   rom   nino-∅   sačmel-s

      Vano-N   think-SF-3sgN (I-3)   that   Nino-N   food-D

      ∅-a-mzad-eb-s   tavistvis.

      3sgD-PR-prepares-SF-3sgN (I-1)   self-for

      "Vano$_i$ thinks that Nino$_j$ is preparing food for herself$_j$."

The reflexive pronoun in this sentence can only refer to nino in the

embedded clause and never to vano in the matrix clause. This inability

of the reflexive to be coreferential with a nominal outside its own

clause is consistent throughout the grammar and thus substantiates the

clausemate constraint, which specifies that a reflexive pronoun can

only be coreferential with a nominal in the same clause. More specif-

ically, based on the evidence in (6.1-6.6), the reflexive can only be

coreferential with a subject nominal of the same clause. And since

only the subject of a clause can be coreferential with a reflexive

pronoun, a grammatical reflexive then can be a certain test for subject-

hood.

There are some constructions, however, which force Harris to

further define the occurrence ofreflexivization. In the following

sentences (Harris 1981: 205-206) either the subject cannot trigger

reflexivization or a nominal in addition to the subject can also trigger

it.

(6.8) *gela-∅ ʒneli-a   tavis-tvis   gasatavisuplle-blad.

       Gela-N   hard-3sgN (I-2) self-for   to-free

       "Gela is hard for himself to set free."

(6.9) *vano-∅ iqo   moḳluli   tavis mier.

       Vano-N   was (II-2)   killed   self by

       "Vano was killed by himself."

(6.10) ekim-ma   ∅-a-laparaḳ-a   vano-∅ tavis tav-ze.

       doctor-E   3sgN-CAUSE-talk-3sgE (I-1) vano-N self's self-on

       "The doctor$_i$ got Vano$_j$ to talk about himself$_{i,j}$."

(6.11) turme   gela-s   da-u-rçmun-eb-i-a

       apparently   Gela-D   PV-PR-convince-SF-PERF-3sgN (III-1)

       tavisi   tavi-∅.

       self's   self-N

       "Apparently Gela has convinced himself."

Both (6.8), an object-raised sentence, and (6.9), a passive, have sub-
jects which cannot trigger reflexivization. In an RG analysis, how-
ever, both these subjects are derived from initial direct objects
(for a complete RG analysis of object raising, see Harris 1981), unlike
the subjects in (6.1-6.7) which are all initial subjects. To account
for the ungrammaticality of (6.8) and (6.9), then, Harris stipulates
that only initial subjects can trigger reflexivization.

     The causative of (6.9) requires Harris to make a further refinement
in her explanation of reflexivization. Here either ekimma or vano can
be coreferential with the reflexive pronoun. An RG analysis predicts
that ekimma, the subject, can trigger reflexivization, but vano would
seem to present a problem since it is not a subject. Harris, however,
explains that since a causative is a fusion of two clauses (Chapter 3

shows this to be a questionable assumption) and that if reflexivization is predictable only by initial grammatical relations, then any initial subject, either from the matrix or embedded clauses, can trigger reflexivization. Thus nominal candidates for triggering reflexivization are determined at an early level of syntactic representation, before causative clause union changes the subject of the embedded clause into a direct or indirect object. However, at this level of representation the clausemate constraint is not yet in effect and therefore allows the subject of either clause to trigger reflexivization. The RG analysis, then, is dependent on at least two levels of analysis, one level which orders syntactic rules to insure that reflexive coreference is determined before causative formation and another later level at which the clausemate constraint acts as a filter to block ungrammatical coreference.

With inversion verbs, as in (6.11) the dative marked nominal can trigger reflexivization. In the RG analysis this nominal, a final indirect object, is an initial subject, and, since reflexivization is determined by initial grammatical relations, it is predictable that it can trigger reflexivization. In inversion sentences, as with all sentences, derived subjects cannot be coreferential with reflexive pronouns.

Finally, an RG analysis requires one additional stipulation to account for the ungrammaticality of (6.12).

(6.12) *es   çign-i   naqid-i-a   nino-s mier tavis-tvis.

        this   book-N   buy-SF-3sgN (III-2)   Nino-G by   self-for

        "This book was bought by Nino for herself."

(Harris 1981: 207).

Here ninos, the demoted initial subject, now marked by mier, can not

control reflexivization. To account for this ungrammaticality, however,

Harris stipulates that the antecedent of tav- must be a final term and

thus cannot be a non-term argument marked by a postposition. In this

way she explains why demoted passive agents cannot control reflexiviza-

tion.

In contrast to the RG analysis, however, an RRG rule for Georgian

reflexivization is based on only a single level of syntactic represent-

ation and simply states that only the highest ranking core argument

on the Actor-Undergoer Hierarchy of any logical structure can control

refelxivization. It will be shown that this one general rule can also

account for all the data and that any departures from it are predictable

based on the inherent semantics of the verb.

In (6.1-6.3) vano triggers reflexivization in all cases, occurring

with a second core argument in (6.1) and (6.2) and a peripheral argu-

ment in (6.3). In all cases vano is obviously the highest ranking

core argument since there are no other competing arguments for reflex-

ivization.

(6.13) [DO (vano, [do' (vano)])] CAUSE [BECOME convince' (himself)]

(6.13) is the LS for (6.1). In this two-place predicate with corefer-

ential arguments, vano is the highest ranking argument for Actorhood

because it occurs as the agentive argument for an activity predicate.

The tav- nominal is the Undergoer by virtue of its semantic role as

patient. Here, just as in (6.2) and (6.3), vano is the only argument

which can control reflexivization. This is in keeping with the RRG

rule which states that only the highest ranking core argument can

trigger reflexivization. Reflexivization is not blocked by semantic

constraints in any of these sentences since all the verbs either can

or must occur with two core arguments: (6.1) must satisfy its valence

of two core arguments; and both (6.2) and (6.3) can occur with two

arguments. In (6.4-6.6) it is more clearly seen how only the highest

ranking argument can trigger reflexivization. In (6.4) mxatvari, an

agent and the Actor in the clause, outranks vanos, a theme and the

Undergoer in the clause, and thus is the only nominal which can trigger

reflexivization. Similarly, in both (6.5) and (6.6) the Actor outranks

the Undergoer and thus is the only nominal which can trigger reflex-

ivization.

In (6.7), an example of subordination with two LS's, it is seen

that reflexivization is indeed clausebounded since coreference in re-

flexivization can only exist within the same LS. However, this is not

to be confused with the two possibilities for coreference in a causative

like (6.10). Here the reflexive pronoun can be coreferential with

either ekimma or vano. The LS for causatives (as discussed in Chapter

2) is in fact two LS's linked by the connective CAUSE (¢ CAUSE §, where

¢ is usually an activity verb and § an achievement verb). In a nuclear

juncture like this there is no subordinated or embedded clause as would

be dictated by a purely syntactic description; instead, this is the

coming together of two LS's in order to reflect the semantics of causa-

tion. And true to the RRG rule for Georgian reflexivization that the

highest ranking argument of any LS can trigger reflexivization, the

highest ranking argument of either logical structure in a causative

can be coreferential with a reflexive pronoun. In the causative of an

intransitive verb it stands to reason that either argument can be re-

flexivized, and in the causative of a transitive either the causer

(Actor) or the causes can trigger reflexivization.[1] Thus it is entirely predictable from an RRG perspective that two arguments in a causative can trigger reflexivization while only one can in other predicates.

The object-raised and passive sentences of (6.8) and (6.9) pose no difficulties for this analysis. Harris points out that in these sentences there cannot be coreference between the derived subject (Actor) and the tvis- or mier nominals. This is true, but it is not because of syntactic constraints. Instead, these types of sentences are constrained semantically from adding an additional argument which is in coreference with the single core argument. For example, due to semantic constraints it is predictable that a passive verb cannot have Actor and Undergoer arguments in coreference. Also, inversion sentences, such as (6.11) pose no problems for an RRG analysis. The datvie marked nominal is the highest ranking nominal in this type of sentence and can therefore trigger reflexivization with a nominative marked nominal when the inversion verb is transitive.

(6.14) predicate' (x,y)

In (6.14), the LS for a transitive stative verb, the two arguments are x, usually a locative, and y, usually a theme. By the Actor-Undergoer Hierarchy, the locative argument outranks the theme and, thus, as the highest ranking argument, controls reflexivization. In this way stative verbs also pose no problem for the analysis.

Thus an RRG explanation of Georgian reflexivization requires only

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[1]Tuite (1987) shows that with some causative verbs, which possess an inanimate causer and an animate causee, it is only the causee which controls reflexivization. Thus, in order to account for this data, the RRG account may be further refined to claim that reflexivization is controlled by the highest ranking animate argument. It is unclear how Harris would account for Tuite's additional data.

one generalization--that the highest ranking core argument of a clause can trigger reflexivization and only one stipulation--the clausemate constraint. However, what makes this such a desirable and simple explanation is that both the rule and the constraint operates at only one level of syntactic representation. This avoids the necessity of assigning different controlling mechanisms of reflexivization to different levels of syntactic analysis. And the seeming exceptions to this rule are actually all predictable based on inherent semantics of predicates and the kinds of structures these semantics allow. It has been shown here that an RRG analysis accounts for the data as completely as does an RG analysis and does so with fewer stipulations and without reference to multiple syntactic levels. This analysis, along with others, such as Schwartz's (1988) of Russian reflexivization, offer counterevidence to the RG assumption that an analysis based on only one level of syntactic representation lacks the explanatory power of an analysis with multiple syntactic levels. This does not necessarily invalidate the RG claim but it does suggest that a monostratal analysis can explain the data just as well, if not more completely, as does a multistratal analysis.

Final Remarks

7.0   As probably evident from the whole of this analysis, the Geor-
gian language exhibits a complexity in both its syntax and semantics
such that it appeals to both syntactic and semantic linguistics. How-
ever, it has been argued here that without a full-fledged theory
of lexical semantics and lexical rules an analysis will miss the
motivations behind any generalizations drawn from the data. Syntactic
accounts, for example, can show that causatives are Class 1 verbs,
derived from verbs of the other three classes or that passives are
Class 2 derivations of Class 1 verbs, to name two processes, but such
accounts can never express why such derivations occur as they do or,
more specifically, why, for instance, passives are always realized as
Class 2 verbs. This occurrence cannot be explained simply in terms
of transitivity since intransitives can occur in other verb classes
as well. If we seek explanations which go beyond simple documentation
of the range of the syntactic structures of a language, an account
of lexical semantics must surely enter the picture.

        Although this paper discusses many Georgian phenomena in cursory
examination of limited data, the intent is to show how a theory of
lexical and derivational semantics can begin to illustrate both the
motivations behind the occurrence of verb class membership and the
power of the system of derivational morphology. And an RRG analysis
does just that. By appealing to the semantics of abstract predicates,
for example, it is always predictable that causatives will be realized
as Class 1 accomplishment verbs by virtue of having a LS with CAUSE.
Similarly, inceptives or inchoatives are predicted to occur as Class

2 achievement verbs due to the achievement LS with BECOME. With this account the occurrence of a structure in a particular verb class need not merely be stipulated, but instead follows directly from semantic principles. In similar fashion, this type of analysis also accounts for the derivation of version objects, the stativization and detransitivization of Series III verb forms, and passivization of Class 1 verbs. The analysis also allows principled explanations for the exceptions, such as why Class 2 verbs do not observe "inverse" case marking in Series III, and the limitations on the range of occurrence of a process, such as why Class 1 verbs passivize while Class 3 verbs do not (a cross-linguistic prediction states that activity verbs do not passivize).

When looking at a language like Georgian, the need for analysis like this is evident. It is obvious that a powerful system of lexical derivation is at work in the language, and an analysis of it has two choices: 1) it can account by lexical rule for the derivations of verbs across verb classes; or 2) it can write abstract syntactic rules which then lead to "lexicon-lock," a lexical gridlock brought on by unnecessary traffic in the lexicon, as evident in at least four entries for the verb cer, as Harris proposes. It is obvious that cer is only one verb and should be treated as such. It is time to move away from abstraction and stipulation and to start accounting for data in a fashion that tells us not only what structures occur in a grammar but, even more importantly, why they occur as they do.

As mentioned in Chapter 1, Rosen (1984) claims that no framework can accurately map semantic case roles directly onto the syntax. Although at one time this may have been true, it certainly is not at

this time. By assuming two semantic levels of analysis, semantic or thematic case roles can be mapped onto the syntax through the macroroles of the second level of analysis, macroroles which still carry semantic content but which also can interface with the syntax to explain phennomena such as case marking. This paper, then, is a response to Rosen's implied claim that semantic analysis cannot work side-by-side with syntactic analysis. Clearly, it can, and now it is up to the theoreticians of abstract syntax to show where and how a sematic approach is flawed and fails to offer a complete and true explanation of grammatical structure.

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