A Role and Reference Grammar Analysis
of Georgian Morphosyntax

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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, including 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 morphosyntax 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 Relational 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 translating 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 expect 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

¹I 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 FV) 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 Perlmuter'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 initial 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 [UK] by which it then becomes a final 1. Rosen concludes that just as Fillmorean case grammar cannot account for the two types of intransitive clauses neither can any other monosynchronal theories (Rosen 1984: 49):

This is a framework that draws no distinction at all between semantic roles and initial OR's, so the possibility of comparing these two sets could not even be envisioned. In effect, their equivalence is presupposed. The same would be true of monosynchronal or 'surfacing' 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, Achieve-
ments, Activities, and Statives as first proposed by Vendler (1967)
and later adopted by Dowty (1977). Dowty's use of abstract predicates
to account for the distinctions among verb classes proposed by Vendler
forms the basis for an RG 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 PTT.

Chapter 3 tackles what is perhaps the most difficult and identify-
ing point of Georgian grammar--its case system. Past analyses of
Georgian case marking have argued 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 RG macroroles Actor and Under-
goer.

Chapter 4 explores the major syntactic constructions in which addi-
tional case marked nominals are added to the valence of a verb through
derivational or morphological processes. More specifically, this chap-
ter explains causatives and version objects within the RG 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 tenses. 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 reflexivization.

Georgian verb morphology is very complex with a variety of affixation 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 "pretinal vowel"
PV "preverb"
VV "version vowel"
K "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 screes, 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 (Gavey 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 Velisky (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. Ateles 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 **put saatr**e ("at 5:00 p.m.") or **rogora** vi ("just at that very moment") (Hoiisky 1981b). Durative verbs, on the other hand, occur in time frames expressing periods of time, such as **samisamti** ("for three hours") (also Hoiisky 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 latter 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 characteristic which separates tense-aspect Series I verb forms from Series II forms. This inflectional opposition operates entirely independently of the lexical telic/stelic 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 screves (tense-aspect categories), the most important for this discussion being the present and future screves. These subseries, however, are similar enough morphologically to allow generalizations to be extracted.

¹This classification of the tense-aspect system represents the traditional view as put forth by Vogt (1971) and Tachenkeli (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  [i]-ces-as-s simind-s
      peasant-N  3sgD-sow-SF-3sgN (I-1)  corn-D
"The peasant is sowing corn."

(2.2) glex-ns da-β-tes-a simind-i
      peasant-E  IV-3sgN-sow-3sgE (II-1) corn-N
"The peasant sowed corn."

(2.3) glex-s da-u-tes-av-s simind-i
      peasant-D  IV-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 exist verb forms,

2In 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 does 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 ćasīl-i  m-i-i -o.
   vano-E letter-N 3sgN-PF-receive-3sgE (II-1)
   "Vano received the letter."

(2.5) vano-s mosacvev-i  gerati mii t-a;  lekciaze-0
   vano-D invitation-N  receive-3sgN (III-1) lecture-D
   mo-vid-a.
   PF-com-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 *turme* ("must have" or "apparently") (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 nepe môkis! kuessi videki da vnsxe.*

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

(2.7) *vi acam nepe nauklav! saidan icit! vi acam mixtra.*

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


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 perangi na miqidi.*

"I didn’t buy (perfect) that shirt."

(2.9) *is perangi na vigide.*

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


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/uncompleted 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 atative 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.
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<tr>
<td>3</td>
<td>-</td>
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<td>4</td>
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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 seinaela ("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 tu ara ("just when") and rogorc ki ("at the very moment").

(2.10) *rogorc ki bavesi tiris, deda sarisi sedis.

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

(2.11) rogorc ki bavesi stirdeba, deda sarisi sedis.

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

(Holisky 1981b).

In (2.10) tiirs ("cry") is a Class 3 verb and cannot occur grammatically with torgorít. In (2.11), however, ajirda ("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 torgorít.

Class 3 verbs are described in great detail by Holisky (1981a), who subdivides this class of verbs into nine subclasses based on various structural and semantic similarities and restrictions. As a rule, however, verbs of this class are both stelic and durative. As already mentioned, stelic verbs can in some circumstances occur in telic contexts with an endpoint. And since the telic property is somewhat sensitive 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) vanno-m i-tamaš-a.
Vanno-ë PR-play-3sgE (II-3)
"Vanno played."

(2.13) v-i-tamaš-e-t
3plE-PR-play-II-3sgN (II-1) 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 incompleted 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 nelmeza ("slowly"), which modify the ongoing nature of the verbs.

Class 4 verbs do occur, however, in non-unique time insants 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 7els mepe iqo.
David was king in 1191.  
(2.15) daviti 1190 če's gamsa.  
David became king in 1190.  
(Hollway 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 1 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 ɣanaræx ("intentionally") (Kolinsky 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 – c 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 immediate 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 FTV (chap. 2).

The four conjugations of 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 1981 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

\(^3\)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 analysis) and can represent either basic verb forms or derived organic causatives.

(2.18) da-na-[ger]-s.

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

"He will write it."

(2.19) da-a-na-[ger]-ineb-s.

PF-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 (1.18) with both arguments of the transitive verb coded on the stem (here $θ$ is the third person singular marker for direct objects and $¬$ the third person singular marker for subjects). 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 circumflex -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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4It 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 RKG.
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 inceptsives. (2.20)

\[ v-i-ma-eb-i. \]
\[ lsgN-FR-hide-FRZS (1-2) \]
"I am hiding."

(2.21)
\[ da-i-ger-eb-a. \]
\[ FV-FR-write-SF-3sgN (1-2) \]
"It will be written."

(Data from Aronson 1982: 61).

(2.22)
\[ a-civ-d-eb-a \]
\[ FV-cold-NCAP-SF-3sgS (1-2) \]
"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 (ger) 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 inceptsives 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) 1-tamæ-eb-s.
PV-play-SP-3sgN (I-1)
"He will play."

(2.24) Š-i-qaræl-eb-s.
3sgD-PV-guard-SP-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 (2.19), the third person direct object is noted by Š.

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

(2.25) s-šir-s.
3sgD-need-3sgN (I-4)
"He needs it."

(Harris 1981: 267).

(2.26) ʃusuy-s ʰiæd-x
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 derivational processes as these, and it is at this point that Harris's expla-
ation could be improved upon. To refer to the four Georgian conjugations 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 much 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 indispensable. By considering Class 1 verbs to be accomplishment verbs and Class 2 verbs to be achievement verbs and then to look at characteristics expected from these types of verbs, it is possible to develop a much more accurate and complete explanation of the derivational processes at work in the grammar. It is also important to note that these processes are inherently morphological in nature and cannot be accurately 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 processes. 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 reason that this analysis is carried out within the theoretical framework afforded by RG.

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

(2.27) 1-sīvēn-ə.

PR-whistle-3sgN (1-3)
"He will whistle."

(2.28) da-ʃ-عط-عسن-س.
PV-3sgD-PR-whistle-3sgN (I-1)
"He will whistle it."

(2.29) ی-قرا-عع-عسن-س.
PR-swim-SP-3sgN (I-3)
"He will swim."

(2.30) گا-ʃ-قرا-عع-عسن-س.
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 lexicon with its individual subcategorization frame. Here (2.27) is subcategorized for one argument while (2.28) is subcategorized for two. These two lexical entries would be necessary since the root گرسن 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 stipulate that similar verbs in other classes are actually entirely different verbs. 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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5See, for example, Harris's (1981: 181-186) discussion of per, گا-عسن, and گا-عسن ("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 REG statement about the rela-
tionship 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:
\[\text{an activity LS [c... predicate' ...]}, \text{add CAUSE [\$ BECOME
 predicate'] ...]} \text{to form a \$ CAUSE \$ accomplishment LS.}\]
by accounting for the pairs of sentences of (2.27-2.30) in this prin-
cipled 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 the simply stipulates that the abstract underlying causative
verb is Class 1. Yet the Vendler/Dowty system easily makes this pre-
diction. 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-ŋ-ger-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 inceptive can be derived from nouns, adjectives, and Class 3 (activity) and Class 4 (stative) verbs.

(2.33) ćir-i-s.

cry-PRES-3sgN (I-3)

"he is crying."

(2.34) a-ćir-t-eb-a.

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

"He will begin to cry."

(2.39) civ-a.

cold-3sg (I-6)

"It is cold."

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

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

"It will become cold."

(2.37) mepe (noun)

"king"
(2.38) ga-mep-i-eb-a.
PV-king-INCEP-SP-3sg (1-2)
"She becomes king."

(2.39) orsulī (adjective)
"pregnant"

(2.40) da-orsul-d-eb-a.
PV-pregnant-INCEP-SP-3sg (1-2)
"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, indicating 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 1 verbs and not as some other consistent verb class. However, by appealing to Dosty’s system of verb classification and abstract predicates, this is readily explained. Inceptives or inchoatives 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 to indicate 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 here simply stipulates that inceives 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 no 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.

<table>
<thead>
<tr>
<th>SUBJECT MARKERS</th>
<th>singular</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1p</td>
<td>v-</td>
<td>v-....-t</td>
</tr>
<tr>
<td>2p</td>
<td>-</td>
<td>-t</td>
</tr>
<tr>
<td>3p</td>
<td>-s/-a/-a</td>
<td>-em/-en/-en</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>DIRECT OBJECT MARKERS</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1p</td>
<td>m-</td>
<td>g-v-</td>
</tr>
<tr>
<td>2p</td>
<td>g-</td>
<td>x-....-t</td>
</tr>
<tr>
<td>3p</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INDIRECT OBJECT MARKERS</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1p</td>
<td>m-</td>
<td>g-v-</td>
</tr>
</tbody>
</table>
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 RG 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 \( y \)-series markers and the direct and indirect object markers as the \( z_1 \)- and \( z_2 \)-series. It should also be noted here that the two \( z \)-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:

\[
\begin{array}{ll}
\text{singular} & \text{plural} \\
1p & \text{mi-} \\
2p & \text{gi-} \\
3p & \text{u-} \\
\end{array}
\]

This set of markers can be referred to as the \( n \)-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 \( y \)-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
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 3sg-NV -cven-a
     Nino-E 3sgN-PR-shoW-3sgE (II-1) pictures-N Gia-D
     "Nino showed the pictures to Gia."

(3.2) mama-Ø mu-Ø-u-cv-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-aa ena-m Ø-1-sesa-a
     Georgian language-E 3sgN-PR-borrow-3sgE (II-3) words-N rusulian.
     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 y- series markers. The undergoer arguments of each sentence are marked nominative and cross-referenced on the verb by the a- 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-Ø ư-X-even-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-Ø ư-u-qv-eb-a melxrob-a nino-s.
father-N 3sgD-PR-tell-SF-3sgN (I-2) story-D Nino-D
"Father is telling Nino a story."

(3.6) kaxul-i ena-Ø ư-sezul-eb-s sitqveb-s
Georgian language-N 3sgD-borrow-SF-3sgN (I-3) words-D
ruusulidan, Russian-from
"The Georgian language borrows words from Russian."

(Harris 1991: 40).

In these sentences the subject arguments are case-marked nominative and cross-referenced on the verb by the կ- series markers. The direct object argument is marked dative and is cross-referenced on the verb by the ձ- or ե- series markers. Usually, the direct object is marked with the ձ- series; however, with a two-argument verb where the non-pivot argument is a locative-goal the ե- series markers apply and can thus mark the object. However, the ե- series also frequently applies in clauses with three core arguments and marks non-Actor or non-Undergoer 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-եկվ-eb-i-x
apparently Rezo-Ø bracelet-N 3sgD-give-SF-PERF-3sgN (III-1)
desis-tvis.
mother-for

"Apparently Rezo gave a bracelet to his mother."
(Harris 1981: 117).

(3.8) gela-s  u-qvec-s  nino-θ.  
Gala-D  3sgD-love-3sgN (III-4)  Nino-N

"Gela loves Nino."
(Harris 1981: 127).

(3.9) ə-cxel-ə.  
3sgD-hot-is (I-i)

"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 \( L^2 \) series markers. The direct object argument, on the other hand, is case-marked nominative and cross-referenced on the verb by the \( N^2 \) 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 \( L^2 \) series. Final -ə 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-nomitive, pattern B as nominative-dative, and pattern C as dative-nomitive. 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.

<table>
<thead>
<tr>
<th>Series</th>
<th>I</th>
<th>II</th>
<th>III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 1 (accomplishment)</td>
<td>B</td>
<td>A</td>
<td>C</td>
</tr>
<tr>
<td>Class 2 (achievement)</td>
<td>B</td>
<td>B</td>
<td>Y</td>
</tr>
<tr>
<td>Class 3 (activity)</td>
<td>B</td>
<td>A</td>
<td>C</td>
</tr>
<tr>
<td>Class 4 (stative)</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
</tbody>
</table>

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 Vavin 1990). Since most accounts consider the \(\text{y}^\text{e}^\text{c}\), \(\text{m}_1\text{e}^{\text{n}}\), and \(\text{m}_2\text{e}^{\text{n}}\) 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-agentive, 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 ERG 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 FVT (59) assigns the macroroles Actor and Undergoer to verbs based on their logical structures [LS] and thematic relations.
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 PFW; 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 predicates 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 y- series marks Actor, if there is one. If not, it marks the Undergoer. Thus, y- marks the ergative argument in Series II for Class 1 and 3 verbs.

When the ergative case is not present, y- 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.

<table>
<thead>
<tr>
<th>Series</th>
<th>Result state</th>
<th>Stative</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>II</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>III</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

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 I and 3) there is no result state, only activities and incomplete accomplishments. So in a sense Series I verbs have a sort of diminished transitivity and, as a result, only one macrorole. Based on this data it is easy to see that ergative is distributionally 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 (60-61). 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  H   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 sorist.

(Van Valin 1990).

It is now easy to account for the occurrence of pattern A ergative-nomina tive 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) rez sacrifice 3sgl give 3sgN (I-1) mothers

(Harris 1981: 117).

A comparison of (3.7) and (3.14) shows that when a Class 1 verb occurs in the Series II perfect tense the nominal that is marked nominative in the present tense (Series I) is now marked dative in the perfect. Here rez, 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, saajur, the dative marked these 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 grammatical 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 Chomsky. 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 ERC 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 (3.6), only one can be Undergoer, and that determination is made by appealing to the Actor-Undergoer Hierarchy. In (3.8) pela 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 pela for Undergoerhood and, therefore, is marked nominative by (3.12). Similarly in (3.15) pela is an agent and signo is a theme. Again, a theme outranks an agent for
Undergoerhood, and so ċigneh receives nominative marking by (3.12).

(3.15) gela-s ċigneh-i mi-∅-aŋ-s sankaixvelosi.
Gela-D books-N PT-3sgD-take-3sgN (1-4) 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 experiencer and the second is the theme which is coded in the predicate by way of (3.16).

(3.16) Attributive/identificational predicate: be′ + theme — > predicate.

As a result there is no nominal argument left overtly to assume macrorole status. Yet with two arguments still coded on the predicate, the theme is only realized by the -a (v- series) suffix. In (3.9) g- is the g-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) roz is an agent, semajur is a theme, and deda is a locative benefactive. Now the ERG macrorole marking principles apply. The theme semajur 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 rozo 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 -twi.

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 ERG 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 stativized 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-n-civ-d-eb-a.
   PV-1sgD-be cold-DECN-SF-3sgN
   "I will become cold."

(3.18) m-civ-a.
   1sgb-be cold-3sgN
   "I am cold."


(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 membership 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
RC analysis.
Chapter 4
Valence-increasing Morphology:
Causatives and Version Objects

4.0 Introduction

One reason why purely syntactic descriptions of grammars (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 EoB—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 Georigans 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 possibilities: (1) synthetic causatives which are morphologically complex and are formed by the fusion of a verb with some other morphological marker; (2) serial verb constructions; or (3) two-verb causatives (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 inflectional 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 circumflex.

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) bavāv-i t-ziin-eb-s.
child-N V-sleep-SF-3sg (1-1)
"The child is sleeping."

(4.2) ubeduri šentxevea-∅ xd-eb-a bay-zi.
unfortunate accident-N happen-SF-3sgN (1-2) garden-in
"An unfortunate accident happens in the garden."

(4.3) sportšmeni- varjiš-ob-s.
athlete-N exercise-SF-3sgN (1-3)
"The athlete is exercising, training."
(4.4) deda-Ø bavxv-s  względ e-s.
mother-N child-D 3sgD-CAUSE-sleep-CAUSIP-3gsN (I-1)
"The mother is putting the child to sleep."

(4.5) paţara bix'i  względ en-s    ubedur
little boy-N 3sgD-CAUSE-happen-CAUSE-3gsN (I-1) unfortunate
sargvxve-s ba-si.
accident-D garden-in
"The little boy is causing an unfortunate accident to happen
in the garden."

(4.6) mqvrel-i sportsmen-s  względ eb-s.
coach-N athlete-D 3sgD-CAUSE-exercise-CAUSE-3gsN (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 e—e—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 incepts 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-e nard-s.
Mzia-D 1sgN-3sgO-CAUSE-play-CAUSE (I-1) backgammon-O
"I am getting Mzia to play backgammon."

(4.9) mzia-s v-Ø-a-tamaš-e nard-i.
Mzia-D 1sgE-3sgO-CAUSE-play-CAUSE (I-1) backgammon-Å
"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 N-series markers. In the transitive causatives of (4.3, 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 follow-
ing rules apply: the subject of the embedded verb becomes the indirect
object of the causative; the direct object of the embedded verb re-
mains 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 adjacency of arguments would have to be listed for both causative and non-causative 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 representations 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 subjects 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 application of rules between levels of syntactic analysis not only complicates 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 BERG 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 BERG 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) \[DO (i, \text{do}' (I)) \text{ CAUSE } [BECOME play' (Mzia, backgammon)]\]

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 Maia 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 determine 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 Dem Holisky) has determined that the following example can have either a voluntary or involuntary causee reading.


Serg-D 1sgH-3sgO-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, thus, 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 coach as Actor and assigning athlete to other status. In (4.6), however, since there is no other argument of the embedded verb, athlete 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 y-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 m-series markers. In short, then, for Georgian causative Class I verbs, the y-series marks the m-series marks the Undergoer.

Thus, the Georgian causative is realized as a verb with accomplishment semantics (Class I) 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 I 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 RMG 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 RMG 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) ɣela-Ø ɣer-s ɣaxɭ-zə.
Gela-N lie-3sgN (1-2) ouch-on

"Gela is lying on the couch. / Gela lies down on the couch."
(4.14) mama-D gela-D ō-a-qve-n-s ñayt-še.
father-N Gela-D 3sgD-CAUSE-lie-CAUSE-3sgN (1-1) 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 argument is significant only for a theory based on grammatical relations. In an RG 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 RG 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 holding 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 grammatical 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 ERG analysis in which there is only one level of grammatical relations and one of semantics. In ERG there is only one syntactic level and the formation of causatives occurs at the level of logical structures 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 syntactic 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 I 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 șe-ș-șer-a  axal-i  šarval-i
Gela-E PV-3sgN-sav-3sgE (II-1) nev-N trousers-N
șen-cvis.
you-for
"Gela made new trousers for you."

(b) gela-n șe-g-1-ker-s  axal-i  šarval-i
Gela-E PV-2sgD-TV-sav-1sgE (II-1) nev-N trousers-N
(șen).
you-D
"Gela made new trousers for you."

(4.15) Possessive version

(a) mlia-n șe-ș-mend-s  di-s  pexasamleb-s.
Mlia-N 3sgD-cleans-3sgN (I-1) sister-G  shoes-D
"Mlia is cleaning her sister’s shoes."
(b) mzia-Ø u-qmend-s da-s pexsacaleu-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 susat-i da-Ø-xat-s dedel-ze.
Gela-E picture-N PV-3sgN-paint-3sgE (II-1) wall-on
"Gela painted a picture on the wall."
(b) gela-a susat-i da-Ø-a-xat-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) sentences 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 ı-, 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 morphophonemic rule (4.18) whereby the indirect object agreement marker combines with the version marker ı- to yield u-.

(4.18) ı- 
{ h- } + i --- u- 
Ø- 

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 his 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 *tv* as nominal and the version *ter* as nominal as an alternation in benefactive semantics and the non-term genitive possessive and the dative term possessive 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 subjective 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.
  lsg-cold (I-4) mother-for
  "I was cold for my mother."

(4.20) *skeli deda-s v-u-qavi.
  fat mother-O lsg-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 ungrammatical 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. As 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 RC analysis never explains this in any principled 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-θ-recr-e
      car-N 3sgG-3sgN-wash-AORIST (II-1) him-for
     "I washed the car for him."

(4.22) mankan-a ga-v-θ-u-recr-e
      car-N 3sgG-3sgN-θ-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. However, the addition of the version vowel ũ- and the deletion of the -tuš 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 -tuš nominal and a version form occurs in (4.23) and (4.24).
(4.23)  sasl-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  sasl-i  da-v-∅-u-lag-e.
     mother-D house-N PV-1sgE-3sgD-IV-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 (4.23-4.24) 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 sentence 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.

\[ (4.25) \text{ davv-va xel-i ga-i-cr-a.} \]

\[ \text{chill-i-E hand-N PT-3V-cut-3sgE (I-1)} \]

"The child cut his (own) hand."

(Aronsen 1982: 37.)

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 traditional 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 benefac-
tive or possessive semantics.

In the traditional analysis of version, ı-, 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, ya-, can also indicate either meaning but is limited to action
benefiting “another” (not the subject). Harris does not give examples
of ya- version morphology, but, with additional data includes this, then
the traditional analysis is better illustrated.

(4.26) ketkven-ın sauxme-∅ ga-i-mazd-a.

Ketkven-E breakfast-N PE-catch-3sgE (II-1)

"Ketkven prepared breakfast for himself."


(4.27) gala-ın ṣe-∅-u-gec-a aaxal-i šarval-1

Gala-E PE-3sga-PE-sew-3sgE (II-1) new-F trousers-N

šarval-D

"Gala made new trousers for šarval."

(Harris 1981: 91).

In looking at typical examples involving ı- version vowel occurrence
(4.25, 4.26) and ya- version vowel occurrence (4.24, 4.27), the pattern
becomes evident. The occurrence of ı- shows that the action designated
by the verb is done to or for the benefit of the ‘self’ or subject.
In (4.26) ketkven 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 semantic 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 general 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 semantics 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 benefactive 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.
In RBG 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

¹For an in depth analysis of how this type of lexical rule works, see Jolly (1967) 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 Ø (3. person singular) in (4.16b) and (4.17b).

In addition, the ARG 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 aorist forms (Arnason 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) ჭერილ-ი მი-ს-ჭერ-ა ჭმა-ჰ.
letter-N PV-3sgD-write-3sgE (II-1) brother-D
"He wrote a letter to (his) brother."

(4.29) ჭერილ-ი მი-ს-ჭერ-ა ჭმის-თვის.
letter-N PV-3sgD-write-3sgE (II-1) brother-for
"He wrote a letter to him for his brother."

(4.30) ჭერილ-ი მი-უ-ჭერ-ა ჭმა-ჰ.
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) ჭერილ-ი მა-ს-ჭერ-ა ჭმა-ჰ.
letter-N PV-3sgD-write-3sgE (II-1) brother-D
"He wrote a letter to (his) brother."

(4.32) çerî-i da-że-r-a gmis-tvis.
letter-N PV-write-3sgE (II-1) brother-for
"He wrote a letter for his brother."

(4.33) çerî-i da-u-ţe-r-a gma-re.
letter-N PV-VV-write-3sgE (II-1) brother-D
"He wrote a letter for his brother."

(Harris 1981: 93).

Harris treats mîyen ("write") and daçera ("write") as two distinct verbs, differing only in the number of arguments they are subcategorized for. Mîyen 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 benefactive 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 indirect 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 neo-erms. However, the presence of the dropped argument is indicated by the suffix -g- 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 -ger- in the lexicon and to allow a richer theory of derivational morphology to account for its various forms. In fact, in Harris's analysis -ger- would also 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-ger-ob-a.

PY-Y-write-SF-3sgN (I-2)

"It will be written."

(Aronson 1982: 61).

(4.35) ḡer-s.

write-3sgN (I-3)

"He is writing."

(Holisky 1981b).

In (4.34) -ger- 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) -ger- 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
"cer" 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 ungrammaticality 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-referenced 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 arguments 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 [emphatic Pronoun Drop] is not needed to explain the occurrence of the marker (-’g-) 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 predicate, whether it overtly appears or not.

An HRC analysis also leaves intactarris's assumption about the markedness of the structures. When occurring without a preverb, -’ger- 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 *migera* already has reached its Class I maximum valence of three core arguments, the benefactive argument must always be considered peripheral. However, with *degera* 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 meaning-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 analysis 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 example 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) qaril-i magida-ze da-v-çav-e.
letter-N table-on/at FV-1sgE-write-AORIST (II-1)
"I wrote the letter on the table." / "I wrote the letter at the table."

(4.37) qaril-i magida-s da-v-çav-a-çer-e.
letter-N table-D FV-1sgE-3sgD-VT-write-AORIST (II-1)
"I wrote the letter on the table."

(Dolinsky, 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 adverbial 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 generate the version form. In addition, this meaning-changing rule would have to be somehow designated to apply only to certain semantic structures since many version forms can obviously be generated without reference 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
nongovernment sentences with indirect objects would have to be inves-
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 RO.

An RG 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—is 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 gedan 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 YR 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 ə-, which is not found in the verbs of sentences characterized by a postpositionally marked locative argument. Although Harris treats ə- 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 (-tvie) benefactive nominal.

(4.40) vano-m ḥe-p-aher-in-a gela-s
Vano-E rv-3sgd-CAUSE-sew-CAUSE-3sgă (I) gela-L
axal-i ḥerval-i ḥentvie.
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 iurat-i da-∅-u-cat-a

Gela-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 (Vano) 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) zayl-ma da-u-qep-a Vano-s.
dog-E PV-VV-bark-3sgE (II-1) vano-D

"The dog barked at Vano."

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

Gela-V-Cause-bark-3sgE (II-1) dog-N

"Gela made the dog bark."

(4.45) anzob-by-is za i-i xmirad mi-qep-s.
neighbor-G dog-N often PV-bark-3sgN (I-1)

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

(4.46) gelz seno-a-∅-qep-in-a zayl-s centvis.

Gela-V-Cause-3sgD-bark-CAUSE-3sgE (II-1) dog-N me

"Gela made the dog bark at me."
(4.47) 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 gap has a valence of two arguments (before the valence-increasing process to allow for the benefactive argument) gep has a normal valence of only one argument, as is common with many Class 3 verbs. In (4.43) the additional argument 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 presence of -a-, the causative affix and valence-increase. 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 gap reveals its limitations. As evident in (4.47) the occurrence of two types of valence-increasing morphology, causative formation and version, are incompatible and yield an ungrammatical sentence 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 gep, 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 *-...-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
Passivisation

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-β 6-a-xr6-ob-s rezo-s. 
Vano-N 3sgD-PR-drown-SF-3sgN (I-1) Rezo-D
"Vano is drowning Rezo."

(b) rezo-β 1-xr6-ob-a. 
Rezo-N PR-drown-SF-3sgN (I-2)
"Rezo is drowning."

(c) rezo-β da-nrr6vai-1-a vano-s mier. 
Rezo-N PR-drown-PRES-3sgN (I-2) Vano-G by
"Rezo is drowned by Vano. / Rezo has been drowned by Vano."

(5.2) (a) patroni 6-a-tb-ob-s otak-s-s. 
landlord-N 3sgD-PR-warms-SF-3sgN (I-1) room-D
"The landlord heats the room."

(b) otak-i tb-eb-a.
The room is heating up.

The room is heated by the landlord.

Due to the obvious differences in the verb morphology and surface syntactic 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). Analytic 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 EG 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 EG 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 ger, diero, and niker 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 FTY (149-166) a typology of passive constructions is presented based upon a distinction between backgrounding and foregrounding passives. Most commonly backgrounding passives are de-transitivized
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. Feely 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 "synthetic" passives "are a subset of the forms characterized in the present tense by one of the circumfixes i--ebi, e--ebi, or A--ebi" (Harris 1981: 194). It can, therefore, be said that the "synthetic" or backgrounding 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 "synthetic" passives. Through a lexical process the Actor argument of a Class 1 verb is eliminated, thus leaving only the Undergoer in a detransitivized clause.

In RBC 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 extension, 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 theoretical 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 გამო ("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 მატ. The genitive case marking which occurs on the denoted Actor is characteristic of მატ nominates 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 foregrounder passive
are not so much towards stativization but rather towards the highlighting
of non-Actor arguments. These foregrounder 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 incepts 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) its corresponding passive.

(5.4) vaši-s mi-s-cem-s masqavlabel-s.
apple-D1 FV-3sgD2-give-3sgN (I-I) teacher-D2
"He will give an apple to the teacher."

(5.5) vaši-i mi-cem-ul-a masqavlablis-tvis.
apple-N PV-give-PART-3sgN (I-2) teacher-for
"The apple is given to the teacher."
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 -cwis marking. For Harris (1981: 112-113), this demotion does not carry with it any obvious explanation of how the nominal in question is put on chonage. Without reaching any certain conclusion, she assumes that it might be easy to write an additional rule for Georgian which allows for "spontaneous chonage." However, a language-specific rule of this type would appear to violate the universal principles of the Chomsky Law. As a result, it is difficult for Harris to explain this demotion within a framework acceptable to RG.

In an ARG 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 -cwis marked nominal follows automatically.
Chapter 6

Reflexivization

6.0 Georgian reflexivization offers a further example of the differences between a purely syntactic account, as afforded by RG, and an account such as afforded by BERG, 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 analysis is based on syntactic rules and constraints which apply at various levels of syntactic representation. An RG 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 stipulations 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 pronounal which is realized as semi tavə (1. person), semı tavi (2. person), and tavasi tavi (3. person); and 2) tavis-/tavint- are the singular and plural markers of possessive reflexivization (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-D ʃ-i-ɾ普法n-eb-s tavis tav-s.

Vano-N 3sgD-PR-convince-SP-3sgN (1-1) self's self-D
"Vano is convincing himself."

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

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

"Vano is talking to himself."

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

Vano=N 3sgG-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) mcer-arat-ı  da-Ø-xat-ar-e  vano-s  tavistvis.

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

"The painter will paint Vano for himself."

(6.5) nino-Ø  Ø-e-tvau-eb-s  patars  givi-s  tavis

Nino=N 3sgD-PR-show-SF-3sgN (I-2)  little Givi-D  self's

tav-s  saveksi.

self-D  mirror-in

"Nino is showing little Givi herself in the mirror."

(6.6) vano-Ø  givi-ze  Ø-e-laparąt-eb-s  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 mcer-arat-ı; it cannot grammatically refer to vano-s. Similarly, in (6.5) the reflexive can only refer to nino-Ø and not to givi-s. Finally, in (6.6)
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 clausal constraint, which specifies that a reflexive pronoun can only be coreferential with a nominal in the same clause. More specifically, 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 subjecthood.

There are some constructions, however, which force Harris to further define the occurrence of reflexivization. In the following sentences (Harris 1981: 205-206) either the subject cannot trigger reflexivization of a nominal in addition to the subject can also trigger it.
(6.8) *gela-Ø žpeli-a tavis-tris gasatavisuplëe-blad.
Gela-N hard-3sgN (I-2) self-for to-free
"Gela is hard for himself to set free."

(6.9) *vano-Ø iqo nökluli tavis mier.
Vano-N was (I-2) killed self by
"Vano was killed by himself."

(6.10) ekin-ma õ-a-laparák-å vano-Ø tavis rav-te.
doctor-EX 3sgN-CAUSE-talk-3sgE (I-1) vano-N self's self-on
"The doctor got Vano to talk about himself,"

(6.11) turne gela-s da-u-rqum-eb-í-a apparently Gela-D PV-PR-convince-SP-PERF-3sgN (III-1)
tavisi tavi-Ø.
self-s self-N
"Apparently Gela has convinced himself."

Both (6.8), an object-raised sentence, and (6.9), a passive, have subjects which cannot trigger reflexivization. In an RG analysis, however, 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 ekima or vano can be coreferential with the reflexive pronoun. An RG analysis predicts that ekima, 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 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 cīgn⁻¹ naqid⁻¹-s nino⁻s micr tavis⁻tvīs.
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 nier, can no:
control reflexivization. To account for this ungrammaticality, however,
Harris stipulates that the antecedent of tsv 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 TG analysis, however, an HRG rule for Georgian
reflexivization is based on only a single level of syntactic representa-
tion and simply states that only the highest ranking core argument
on the Actor-Undergoer Hierarchy of any logical structure can control
reflexivization. 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) [Lo (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 Actornhood
because it occurs as the agentive argument for an activity predicate.
The tsv- 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 HRG
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) mostvani, an agent and the Actor in the clause, outranks vno, 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 reflexivization.

In (6.7), an example of subordination with two LS's, it is seen that reflexivization is indeed clause-bounded since coreference in reflexivization 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 extena or vno. The LS for causatives (as discussed in Chapter 2) is in fact two LS's linked by the connective CAUSE (c CAUSE f, where c is usually an activity verb and f 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 causation. And true to the VAG 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 reflexivized, and in the causative of a transitive either the cause
(Actor) or the causes can trigger reflexivation. Thus it is entirely predictable from an RRG perspective that two arguments in a causative can trigger reflexivation 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 trig- or met nominal. 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 dativ marked nominal is the highest ranking nominal in this type of sentence and can therefore trigger reflexivation with a nominative marked nominal when the inversion verb is transitive.

(6.14) \textit{predicate} (x, y)

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

Thus an RRG explanation of Georgias reflexivation requires only

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1Tuite (1987) shows that with some causative verbs, which possess an inanimate cause and an animate cause, it is only the causee which controls reflexivation. Thus, in order to account for this data, the RRG account may be further refined to claim that reflexivation 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 #RG 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 monostatal analysis can explain the data just as well, if not more completely, as does a multistatal analysis.
7.0 It is probably evident from the whole of this analysis, the Georgian language exhibits a complexity in both its syntax and semantics such that it appeals to both syntactic and semantic linguistics. However, 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 1 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 1 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 NRG 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, inceptive or inchoative 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 phen-
nomena 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 theoreti-
cians of abstract syntax to show where and how a semantic approach is
flawed and fails to offer a complete and true explanation of grammatical
structure.
REFERENCES


