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ABSTRACT

Analysis of a form of Burushaski, spoken in northern Pakistan, uses Relational Grammar (RG), targeting grammatical relations at different strata in a clause, to account for a wide range of verb agreement and case marking phenomena. It is found that the RG notions of unaccusative and unergative are sufficient to characterize the two major groupings of intransitive verbs. The nominals that can trigger object agreement on the verb are accounted for by various revaluation constructions. The grammar sanctions inversion, multi-predicate causative constructions, and impersonal constructions with a silent dummy nominal, thus making a similar case for subject agreement. Burushaski particularly lends support for RG claims about antipassive constructions. The RG notion of ascension is sufficient to account for possessor object agreement with verbs that govern this construction. Analyzing clauses with auxiliaries as multi-predicate construction helps account for absence or presence of object agreement in some situations. Causatives and inversion are also seen as multi-predicate constructions. Case marking of certain nominals is often sensitive to grammatical relations within a clause; if a nominal bears a certain relation in a clause, it will receive appropriate marking in spite of other grammatical relations. The rule for ergative case marking is similar. Contains 66 references.
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Verb Agreement and Case Marking in Burushaski

Stephen R. Willson¹

Burushaski verb agreement and case marking phenomena are complex and have not been described adequately by any current theory of syntax. In particular, no explanation has yet been given as to why a variety of nominals can trigger agreement in the verbal prefix. In some cases the apparent subject triggers this agreement, in others the direct object appears to do so, in others the indirect object, in others the possessor of the direct object, in others a benefactive or source nominal. Also, the constraints on the usage of ergative, absolutive and oblique case, and other indicators of grammatical relations on nominals, have been insufficiently characterized in the literature on Burushaski. In this paper I propose an account of these facts, and several others relating to Burushaski clause structure, within the framework of Relational Grammar.

1. Introduction

1.1. Background

Burushaski is a language spoken by about 100,000 people in northern Pakistan. There are two main dialects of the language, one spoken in the Yasin valley (also called Werchikwar), and the other spoken in the Hunza and Nagar valleys. Although there are some differences between the Burushaski spoken in Hunza and Nagar, they are few.²

Burushaski is classified as a language isolate. No conclusive studies have yet been done to link it genetically to any of the neighboring language groups, nor to any other language for that matter (e.g. the languages of the Caucasus). These neighboring groups are Indo-Aryan Dardic (represented by Kalasha and Khowar to the west, and Shina to the south), Western Iranian (represented by Waqhi to the north), West Tibetan (represented by Balti to the east), and Turkic (represented by Kirghiz and Uighur further to the north).

This study will focus exclusively on the dialect of Burushaski spoken in central Hunza, specifically the township of Hyderabad. However, most of the rules also apply to Nagar Burushaski, and many apply to the Yasin dialect as well.

1.2. History of Burushaski studies

Burushaski has received a relatively large amount of attention from linguists compared to the surrounding languages of northern Pakistan. This is due in large part to its nature as a language isolate. Much of the work done on the language is summarized in Berger 1985a.

¹ This article is a slightly revised version of the my 1990 M.A. thesis at the University of North Dakota. I would like to thank the following people for their great help with this article: my friend Kisro Khan from Hunza; my thesis committee chairman Stephen Marlett; the other members of my M.A. committee, Albert Bickford and Desmond Derbyshire; and my supportive wife Sharon Willson.

² There are two main differences between Hunza and Nagar Burushaski. One is the presence of more borrowed words from Shina in the Nagar dialect. The other is the difference in the second person singular personal pronoun (ún vs. úm for the Hunza and Nagar dialects respectively) and the form of the copula when showing agreement with "y" class singular nouns (eg. bilá/dilá it is). For more extensive treatment of these and other dialect differences, see Berger (forthcoming).

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The first major published presentation of Burushaski data was *The Hunza and Nagyr Handbook* in 1889 by Gottlieb Leitner. The portion of this work that is of interest to the study of Burushaski dialects is a section entitled 'The Traveler's Vade-Macum' where a number of words, phrases, and texts of Hunza and Nagar Burushaski are compared with the neighboring Dardic language Shina. These are the oldest available Burushaski texts.

The next work to be issued was *The Burushaski Language* by D.L.R. Lorimer (1935-38). This has been the standard reference work on Hunza Burushaski. The three volumes consist of a grammar, a collection of texts with translations, and a basic dictionary. The data quality of Lorimer is quite good, although his phonetic transcription is unreliable.

Hermann Berger published his *Das Yasin Burushaski* in 1974, the first major study of the dialect spoken in Yasin. This also includes a grammar sketch, a collection of texts and a basic dictionary. The data quality is good and the transcription is usable for further studies.

A number of journal articles have appeared from the University of Montreal by Yves-Charles Morin, Etienne Tiffou, and others. These studies include a Yasin vocabulary list (Morin et. al. 1979), a study of the influence of Urdu on Yasin Burushaski (Morin and Dagenais 1977), a study of Burushaski morphological constraints (Morin 1976), and works on Burushaski voice onset time (Marchal et. al. 1977), usage and function of ergative case (Tiffou 1977), split ergativity (Tiffou and Morin 1982), and the passive construction (Morin and Tiffou 1988).

Basic studies of Burushaski phonology, plural noun and adjective morphology, and verb inflection have been presented in Morgenstierne et. al. 1945. Further work on Burushaski phonology was done in Toporov 1970. An important study of the relationships between Hunza and Nagar Burushaski is presented in Varma 1941.

Various studies have been undertaken to determine the genetic relationship of Burushaski. Among these are Bouda 1950, Toporov 1971, and Tikkanen 1988 and 1995. None of these studies has produced any conclusive results.

More recently there has been the publication of *Contes du Yasin*, a basic grammar of Yasin Burushaski with an accompanying dictionary (Tiffou and Pesot 1989, Morin and Tiffou 1989), and *Hunza Proverbs*, a collection of proverbs, riddles, and sayings (Tiffou et. al. 1993). Also of note are several books of Burushaski proverbs, riddles, poems, and cultural information by the Hunza scholar Dr. Allaama Nasiruddin Hunzai (Hunzai 1961, 1991a, 1991b). Berger is currently completing work on his three-volume study of Hunza and Nagar Burushaski. This will also consist of a grammar, a collection of texts, and an extensive wordlist.

The research for this paper was conducted during three visits to Hunza in the summers of 1987, 1988 and 1989. My principle language consultant was Kisro Khan of Hyderabad. I also received valuable help from Hussain Ali and members of his family, also of Hyderabad.

1.3. Posing the problem

Two types of grammatical rules that often figure into descriptions of languages are verb agreement rules and case marking rules. These kinds of rules can be stated in a form similar to that given below:

- (1) a. The verb agrees with its subject in person and number.
- b. Direct objects are marked with accusative case.

At first glance however, the set of rules required to account for Burushaski verb agreement and case marking phenomena in different clause types seems anything but simple or elegant. In

example set (2) are some sentences that typify the most common range of markings one might find in any text.³

- (2) a. dasín háa le hurúTumo
 dasín há-e le hurúT-umo
 girl/ABS house,y-OBL in sit-3sf/PAST
The girl sat in the house.
- b. dasín háa le móyanumo
 dasín há-e le mó-yan-umo
 girl/ABS house,y-OBL in 3sf-sleep-3sf/PAST
The girl slept in the house.
- c. hilése dasín muyeétsimi
 hilés-e dasín mu-yeéts-imi
 boy-ERG girl/ABS 3sf-see-3sm/PAST
The boy saw the girl.⁴
- d. hilése dasínmo r toofá muúmi
 hilés-e dasín-mo r toofá mu-ú-imi
 boy-ERG girl-OBLf to gift,x/ABS 3sf-give,x-3sm/PAST
The boy gave the girl the gift.
- e. hilése dasínmo tsum toofá yánimi
 hilés-e dasín-mo tsum toofá i-yán-imi
 boy-ERG girl-OBLf from gift,x/ABS i-yán-imi
The boy took the gift from the girl.

The unmarked order for clause constituents in Burushaski is Subject-Object-Verb. Every finite verb requires an agreement suffix. The suffix on each of the verbs in (2) above shows agreement with the clause initial nominal - the subject/Agent. In addition, many verbs require an agreement prefix. This is the case for examples (2b-e). This prefix in (2b) shows agreement with the subject/Agent, in (2c) and (2e) with the direct object/ Patient, and in (2d) with the indirect object/Recipient.⁵

Subjects of intransitive clauses are marked with Absolutive (ABS) case as in (2a,b). Subjects of transitive clauses are marked with Ergative (ERG) case as in (2c-e). Direct objects are marked with ABS case as in (2c-e).⁶ Objects of postpositions are marked by Oblique (OBL) case. Indirect objects are marked by the postposition *r to* as in example (2d). Sources are marked by the postposition *tsum from* as in example (2e).

From the five sentences presented above we could propose the following rules:

³ See section 2.1.1 for a discussion of Burushaski phonology and the orthography used in this paper.

⁴ See section 2.3.3 for a discussion of the variance in the agreement prefix forms.

⁵ The prefix of *yánimi* in example (2e) is not apparent, but this is the form of the verb used when the thing taken is a singular noun of the h or "x" class. *Gánimi* is form used when the thing taken is a "y" class noun. See section 2.2 for discussion of Burushaski noun classes.

⁶ The terms 'subject', 'direct object', 'ergative' and 'absolutive' are used here in a pretheoretical sense. These terms will be defined more carefully in the next and succeeding sections.

- (3) Verb agreement rules (preliminary version)
- The verb agrees by means of a suffix with the subject.
 - The verb agrees by means of a prefix with the indirect object if there is one, or if there is none, with the direct object if there is one, or if there is none, with the subject of certain intransitive verbs.
- (4) Case marking rules (preliminary version)
- Absolutives occur in ABS case.
 - Ergatives are marked with ERG case.
 - Indirect objects are followed by the postposition *r* *to*.
 - Locatives are followed by the postposition *le* *in, at*.
 - Sources are followed by the postposition *tsum* *from*.
 - Postpositions require their objects to be in OBL case.

Thus far the only real complexity in the rules is in verb agreement rule (3b). Now we will consider some additional examples.

- (5) hilése dasín taswíir móoltirimi
 hilés-e dasín taswíir móo-ltir-imi
 boy-ERG girl/ABS picture,y/ABS 3sf-show-3sm/PAST
The boy showed the picture to the girl.

The problem with (5) is the case marking of *dasín girl* which in the English translation is an indirect object, yet is marked by ABS case. If this nominal was an indirect object in Burushaski, the rules in (4) would predict OBL case marking followed by the postposition *r*.

Now consider example (6) below.

- (6) hilése dasínmo tsum pén mushíirimi
 hilés-e dasín-mo tsum pén mu-shíir-imi
 boy-ERG girl-OBLf from pen,x/ABS 3sf-snatch-3sm/PAST
The boy snatched the pen from the girl.

The problem with this example is verb agreement. In sentence (2e) above which had a source nominal, prefix agreement was with the direct object. Sentence (6) also has a source nominal but agreement is with the source itself, not the direct object.

Now consider the following additional example.

- (7) hilése dasínmo r barénimi
 hilés-e dasín-mo r barén-imi
 boy-ERG girl-OBLf to look.at-3sm/PAST
The boy observed the girl.

There are two problems with example (7) for the rules in (3) and (4) above. First, the direct object (at least in the English translation) is followed by the postposition *r*. Second, the verb has no prefix, while the verb in the roughly equivalent sentence (2c) has a prefix showing agreement with the apparent direct object.

Here is another example to consider.

- (8) hilése dasínmo mómiSh móoskartsimi
 hilés-e dasín-mo mó-miSh móo-skarts-imi
 boy-ERG girl-OBLf 3sf-finger,x/ABS 3sf-cut-3sm/PAST
The boy cut the girl's finger.

The problem here is that the verbal prefix shows agreement with the possessor dasín *girl*, not with the head of the direct object constituent mómiSh *her finger* as would be expected.

And another example:

- (9) dasín redyó dumóyalumo
 dasín redyó d-mó-yal-umo
 girl/ABS radio,x/ABS d-3sf-hear-3sf/PAST
The girl heard the radio.

Here the problem is that the subject of this apparently transitive clause has ABS case marking and triggers agreement in both the verbal prefix and suffix.

Again, let's look at another example:

- (10) dasínmo r hán gitáapan awaáji bilá
 dasín-mo r hán gitáap-an awaáji b-ilá
 girl-OBLf to one,y book,y-INDEF/ABS need be-3sy/PRES
The girl needs a book.

Here the problem is that dasín *girl* is followed by the r postposition which is normally used for indirect objects. Also, the copula b *to be* is showing agreement as if gitáapan *a book* were the subject.

We see from examples (5)-(10) that the relatively simple set of rules given in (3) and (4) would have to be considerably more complicated to account for all the data at hand, at least if we assume that the grammatical relations in the Burushaski clauses closely parallel their English translations. In this paper I will propose and argue for a set of verb agreement and case marking rules, along with analyses for all of the above sentences, using the Relational Grammar (RG) framework. These rules will show that Burushaski has many of the syntactic features found in other languages around the world. They will also lend support to the view that Relational Grammar is a framework in which meaningful linguistic universals can be stated, and in which insightful grammars of individual languages can be constructed.

Although a background in Relational Grammar will be useful in reading this paper, I will not assume that the reader necessarily has such a background. I will provide brief explanatory comments where it will be helpful. The reader is referred to several introductory works on RG (such as Perlmutter 1983a) for more information.⁷

2. Preliminaries

2.1. Typological characteristics

Burushaski, though a language isolate, manifests many of the attributes of other South Asian languages (Masica 1976:19-39). Some of these will be briefly discussed in this section.

⁷ Other introductory works on RG include Perlmutter 1980, Perlmutter and Rosen 1984, and the references listed in Dubinski and Rosen 1987.

2.1.1. Phonology

Burushaski is typical of other South Asian languages in that it employs retroflex stops and affricates, aspirated stops and affricates, and nasalized vowels (though slightly used). It is similar to the neighboring Dardic languages with its retroflex grooved fricatives and affricates. It differs from the neighboring languages in its use of a voiced palato-velar approximate.

There is no commonly accepted way to write Burushaski. Therefore the orthography used in this paper is a simple working version. Some writers would replace the uppercase letters with their lowercase versions and a dot or accent mark above or below it.

- (11)
- p voiceless bilabial stop
 - b voiced bilabial stop

 - t voiceless alveolar stop
 - th voiceless aspirated alveolar stop
 - d voiced alveolar stop

 - T voiceless retroflex alveolar stop
 - Th voiceless aspirated retroflex alveolar stop
 - D voiced retroflex alveolar stop

 - s voiceless alveolar fricative
 - z voiced alveolar fricative
 - sh voiceless palato-alveolar fricative

 - Sh voiceless retroflex palato-alveolar fricative
 - f voiceless bilabial affricate⁸

 - ts voiceless alveolar affricate
 - tsh voiceless aspirated alveolar affricate

 - c voiceless palato-alveolar affricate
 - ch voiceless aspirated palato-alveolar affricate
 - j voiced palato-alveolar affricate

 - C voiceless retroflex palato-alveolar affricate
 - Ch voiceless aspirated retroflex palato-alveolar affricate
 - J voiced retroflex palato-alveolar affricate

 - k voiceless velar stop
 - kh voiceless aspirated velar stop
 - g voiced velar stop

 - q voiceless uvular stop
 - qh voiceless aspirated uvular stop
 - G voiced uvular stop

 - h voiceless laryngeal fricative
 - l voiced lateral approximate

⁸ Phonemically this is /ph/. The letter "f" is used in borrowed words and the digraph "ph" is used in Burushaski words.

- r voiced alveolar flap
 R voiced retroflex alveolar flap (phonemically the same as D, only used with words borrowed from Urdu)
 m voiced bilabial nasal
 n voiced alveolar nasal
 N voiced velar nasal
 w voiced labio-velar approximate
 y voiced palatal approximate
 Y voiced palato-velar approximate⁹

When a Burushaski word is used sentence-initially in the text of this paper, the first letter will be capitalized. This is done only to follow convention and is not a claim that the word begins with a retroflex consonant or some other phoneme that is symbolized by a capital letter.¹⁰

Stress in Burushaski is superficially contrastive, as evidenced in the minimal pairs below:

- (12) a. báre vs. baré
 of the valley *look!*
 b. íne vs. iné
 3sh-ERG *DEM3sh*

Stress is indicated in the transcriptions in this paper.

Burushaski has five vowels: a, e, i, o, and u. Vowels occur in both long and short forms, nasalized and non-nasalized.¹¹ In this paper long vowels are analyzed as sequences of identical vowels in which either of the vowels can be stressed.¹²

- (13) a. múu muú
 her father *now*

⁹ The body of the tongue approaches the position midway between the palate and the velum without causing friction, yet comes closer to the roof of the mouth than for a high central vowel.

¹⁰ Burushaski words are only capitalized sentence-initially when used in the text of this paper. The same words, when used in the numbered examples, have the proper phonemic capitalization.

¹¹ Nasalized vowels in this paper are indicated by a caret (^) above the vowel.

¹² Sequences of non-identical vowels are also common as in the following examples:

- (i) a. úe ué
 3p-ERG *3p/DEM*
 b. éi eí
 his daughter *my son*
 c. óuruTas óuwas
 to make them sit *to not give to them*

A correlate of stress is higher pitch, which is especially noticeable in sequences of identical vowels, the second of which is stressed. For example the root for *name* is ik. This is an inalienably possessed noun and must always be preceded by an agreement prefix. Although superficially contrastive as mentioned above, stress generally occurs on the second syllable of a word. The result when the third person singular masculine agreement prefix i- is attached to ik is íik *his name*, with a noticeably higher pitch in the second vowel. As there are no monosyllabic (single vowel) words that contrast in pitch, a tone analysis for this phenomenon is unlikely.

- b. dúun duún
 they having come *having held*

2.1.2. Word order

The basic order of constituents in a clause in Burushaski is SOV. This order is flexible however. For effect, the order of the subject and object in (14) below could be reversed.

- (14) íne gús muyeétsimi
 ín-e gús mu-yeéts-imi
 3sh-ERG woman/ABS 3sf-see-3sm/PAST
 He saw the woman.

Other constituent orderings are:

- (15) Modifier - noun¹³
 Noun - postposition
 Relative pronoun - relative clause
 Qualifier - adjective

2.2. Noun morphology

2.2.1. Noun classes

There are four noun classes in Burushaski. These are given below followed by the commonly used class designators.¹⁴

- (16) (human) masculine nouns m
 (human) feminine nouns f
 non-human count nouns x
 mass nouns y

These noun classes affect the choice of agreement suffixes on verbs, forms of personal pronouns, suppletive verb roots, plural suffixes, and other aspects of Burushaski morphology. In (17) below, examples are given of the different forms of the agreement suffix for the verb *b* to be for predicate nominals and predicate adjectives of the m, f, "x", "y" singular and "y" plural noun classes. Forms of personal pronouns are also given for anaphors of these classes. Suppletive roots for the verb *wáshias* to throw are also given. The choice of verb root when a clause con-

¹³ Modifiers include adjectives, possessors, demonstrative pronouns, quantifiers, participles and infinitives.

¹⁴ Often rules and morpheme glosses presented in this paper will refer to groups of noun classes. In such cases I will use the following abbreviation conventions:

- (ii) h the noun classes m and f (as opposed to "x" and "y")
 m the noun class m (as opposed to f, "x" and "y")
 f the noun class f (as opposed to m, "x" and "y")
 hx the noun classes m, f and "x" (as opposed to "y")
 mxy the noun classes m, "x" and "y" (as opposed to f)

The object agreement prefix *î-* (and also the stressed form *é-*) can indicate agreement with an m, "x" or "y" class nominal. In this paper I have only put in the appropriate gloss that is necessary for the reader to see which nominal is being currently cross-referenced. For example, if in a given sentence the agreement prefix is cross-referencing a human masculine nominal, I will gloss it as 3sm, not 3smxy.

tains this verb is determined by the noun class of the direct object. Finally, typical forms of the plural suffix are given for nominals of the various noun classes.¹⁵

(17)	<u>m</u>	<u>f</u>	<u>x</u>	<u>ys</u>	<u>yp</u>
Agreement suffix	-ai	-o	-i	-ila	-itsaN
Personal pronoun	in	in	es	et	ek
Verb root	wáshias	wáshias	wáshias	bisháias	gíYas
Plural suffix	-tiN	-tiN	-isho/-ants	-iN	-iN

While the count/mass distinction between "x" and "y" class nouns generally holds (dán *stone* is "x" while tshil *water* is "y"), there are exceptions.¹⁶ For example, books can be counted in Burushaski (hán gitáap *one book*, altó gitáapiciN *two books*). However, the form of the agreement suffix on the copula when it shows agreement with this noun (hán gitáap b-ilá *it (ys) is one book*) is of the "y" class. The plural suffix that attaches to this noun (-iciN) is of the class that only follows "y" class nouns. The anaphoric pronoun for gitáap is that used for a "y" class noun (ét *3sy*). One verb for *to throw* has three forms. The form used when gitáap is a direct object is bisháias, which is only used when the direct object is a "y" class noun.

These noun classes merge in certain cases. The distinction between m and f disappears in the uninflected third person singular personal pronoun (in *3smf*), and in all forms of third person plural personal pronouns (ú *3p/ABS*, ú-e *3p-ERG*, ué *DEM3p*). The distinction between the "x" and "y" noun classes disappears in the negative singular form of the verb b *to be* (apí *NEG-be-3sxy*), and the past tense form of manáas *to become* (maními *become-3smxy/PAST*).

2.2.2. Noun affixes

Burushaski is an agglutinative language. It has two numbers, singular and plural, with a variety of plural suffixes that attach to nouns, adjectives, and nominalized verbs.

Definiteness of nominals is unmarked, while indefiniteness is marked by the indefinite singular suffix -an and the indefinite plural suffix -ik.

Burushaski has three cases: ergative, absolutive, and oblique. Ergative case is marked by the suffix -e. Absolutive case is unmarked. Oblique case is marked by the suffix -e for non-feminine (m, "x" and "y") nouns and -mo for feminine nouns.¹⁷

Ergative case is used for subjects of transitive clauses in all verb tenses except future tense. In clauses with a verb in future tense, the subject usually occurs in absolutive case. Absolutive case is typically used for subjects of intransitive clauses, and for direct objects. Oblique case (without a following postposition) is used for possessors.¹⁸

¹⁵ The number of plural suffixes in Burushaski is rather large (Lorimer lists over 60, although he includes a large number of allomorphs) and nouns, adjectives and nominalized verbs are subcategorized as to which plural suffixes they allow or require. The examples presented here are the more commonly used forms.

¹⁶ The more common of these include há *house*, tóm *tree*, and gitáap *book* which are countable, yet "y" class nouns, and zamíin *land* which is an "x" class noun.

¹⁷ The feminine oblique suffix -mo is also used for another purpose which is discussed in footnote 37.

¹⁸ To define the terms 'subject', 'direct object', 'ergative' and 'absolutive' more carefully, I use the two concepts that are central to RG: the notion of primitive (undefined) grammatical relations that a nominal bears in a clause (such as 'subject of', 'direct object of' and others), and multiple levels at which a nominal may bear these relations. A monostratal clause has only one level (or stratum) at which nominals bear grammatical relations. A multi-stratal clause has more than one level. Typically in a given level in a

All grammatical relations except subject, direct object, and possessor are marked by postpositions. Some postpositions in Burushaski (such as *r to*, *tsum from* and *le with*¹⁹) are not phonologically independent words, while others (such as *dalbáT across* and *yaar under*) are. Sequences of postpositions also occur, as in (18).

- (18) inmo tsum yar
3sh/OBLf from before
before her

Postpositions govern the case of their objects (i.e. the nominal they follow), usually requiring it to be in oblique case and sometimes in absolutive case. Some postpositions such as *ulo in* require their objects to be marked with oblique case if feminine and absolutive case otherwise.

Many nouns representing body parts and kinship terms are inalienably possessed and require a prefix indicating the possessor. These prefixes are identical to the object agreement prefixes used on verbs. Some examples are given below.

- (19) a. yuúTis
i-úTis
3sm-head
his head
- b. múu
mu-u
3sf-father
her father
- c. áNgo
a-Ngo
1s-paternal.uncle
my paternal uncle

clause, one nominal bears the ‘predicate’ relation, another bears the ‘subject’ relation and so on. Nominals that bear these relations head ‘arcs’, with the ‘tail’ of these arcs being the clause itself. In a multi-stratal clause, a nominal may head more than one arc.

An arc can be referred to by the grammatical relation that the nominal heading it bears in a given stratum. An arc is labeled ‘ergative’ if the nominal that heads it bears the subject relation in a transitive stratum. An arc is labeled ‘absolutive’ if the nominal that heads it bears either the direct object relation in a transitive stratum, or the subject relation in an intransitive stratum.

In this paper I will most often use tabular diagrams such as the following to illustrate clause structure.

(iii)	2	1	P	
	1	Cho	P	
	shishámuts	inmo tsum	táq umánie	
	windows	by her	they became smashed	

Shishámuts windows heads two arcs in (iii), an ‘initial’ 2 arc and a ‘final’ 1 arc, both of which are absolutive. The pronoun *in her* also heads two arcs, an initial 1 arc (which is ergative) and a final Cho arc (which is neither ergative nor absolutive but is a ‘retirement’ arc). The verb in this simplified table heads both an initial and final Predicate (P) arc.

¹⁹ For the sake of clarity, these postpositions are written in this paper as separate words. Normally they are joined to the word they follow.

2.3.1. The Negative prefix

The left-most prefix in a verb is the negative morpheme. The negative prefix has two major allomorphs: a- and oó-.²¹ The latter is limited to a few verbs.

- (22)
- | | | |
|----|-----------------------------|---------------------------------|
| a. | jé JúCam | jé aCúCam |
| | <i>I will come</i> | <i>I will not come.</i> |
| b. | jé gutshárcam | jé akútsarcam |
| | <i>I will walk</i> | <i>I will not walk.</i> |
| c. | sabáq pháSh meími | sabáq pháSh oómairi |
| | <i>The lesson will end</i> | <i>The lesson will not end.</i> |
| d. | jé nícam | jé oónicam |
| | <i>I will go</i> | <i>I will not go.</i> |
| e. | jé bésan séyam | jé bésan oósayam |
| | <i>I will say something</i> | <i>I will not say anything.</i> |

2.3.2. The "d-" prefix

The next morpheme which may occur in a verb is the "d-" prefix. There is a subset of verbs which all begin with d-. They include the following verbs presented in example set (23) below.

- (23)
- | | | |
|----|-----------|-----------------|
| a. | dítsas | <i>to bring</i> |
| b. | dématalas | <i>to yawn</i> |
| c. | désilas | <i>to soak</i> |
| d. | díGunas | <i>to ripen</i> |

Berger, in his study (forthcoming), has found four usages for the d- prefix: to change the 'primary transitive' into an intransitive (ikhácias *enclose* vs. dukhácias *be enclosed* -- see section 4); to derive a verb with more of a focus on the location of the topic (éeras *to send* vs. déeras *to send here*); to derive a word with no change of meaning from one without the d- (sókas *dismount* vs. dusókas *dismount*); and on certain verbs with no derivational relation to any other verb (dítsas *bring, x* and dítalas *wake up*).

2.3.3. The object agreement prefix

Under conditions specified by the syntax, (see following sections), a verb may carry an object agreement prefix. This prefix shows agreement with one nominal in the sentence in person, number, and noun class. It takes basically one of two forms: unstressed or stressed.²² Sets of these prefixes are presented in (24).²³

²¹ Another apparent form, eé-, appears when the negative prefix a- joins the 3smxy agreement prefix i-, as in iwálas *for him to fall* and eéwálas *for him not to fall*. Eé- is not a separate prefix though.

²² The unstressed/stressed distinction has many exceptions, however, which will not be discussed in this paper.

²³ Berger (forthcoming) lists a third type of prefix, taken from the stressed set in (24) but with a long vowel. Since these prefixes are used mainly in causative, possessor ascension, impersonal or antipassive constructions, I am analyzing them as a simple stressed prefix plus a causative (etc.) morpheme which is represented as <L>, or lengthening.

Burushaski has a rule of vowel epenthesis which inserts a vowel between the d- prefix and the initial consonant of the agreement prefix if there is one. The shape of the vowel is determined by the vowel in the

(24) Prefix agreement types

	<u>Unstressed</u>		<u>Stressed</u>	
	<u>Sg</u>	<u>Pl</u>	<u>Sg</u>	<u>Pl</u>
1	a	mi	á	mé
2	gu	ma	gó	má
3hm	i	u	é	ó
3hf	mu	u	mó	ó
3x	i	u	é	ó
3y	i	i	é	é

Some verbs prohibit an object agreement prefix (*sénas to say*, *daldínas to sift*) altogether. Other verbs allow a prefix when agreeing with h or "x" class nominals, but prohibit one for "y" class nominals (*iltánas/tanáas to pound x/y*, and *iphúsas/pusáas to bind up x/xy*). Note from the chart in (24) that there is no singular/plural distinction for agreement with "y" class nouns.

The verb *manáas to become* optionally allows an agreement prefix for human and "x" class nominals (under conditions discussed in section 6) and *never* allows a prefix for "y" class nominals, whether singular or plural.

- (25) a. *sá* *lálam* *imánibim*
 sá *lálam* *i-man'-ibim*
 sun,x/ABS shine 3sx-become-3sx/PSTPRF
 The sun had shone.
- b. *GéniSh* *lálam* *manílum*
 GéniSh *lálam* *man'-ilum*
 gold,y/ABS shine become-3sy/PSTPRF
 The gold had glittered.

The matter of which nominals determine agreement in this prefix will figure in the arguments presented later in this paper.

2.3.4. *The causative/possessor prefix*

A certain class of intransitive verbs can occur with the causative prefix *g-*.²⁴ A stressed object agreement prefix always precedes this causative prefix. An example is given below.

- (26) a. *ín* *ikháranimi*
 ín *i-kháran-imi*
 3sh/ABS 3sm-late-3sm/PAST
 He was late
- b. *jáa* *ín* *éskaranam*
 jé-e *ín* *é-s-kharan-am*
 1s-ERG 3sh/ABS 3sm-CAUS-late-1s/PAST
 I made him late.

prefix, following principles of vowel harmony that operate elsewhere in the language. For example, *d-gó-* becomes *dukó-*, *d-má-* becomes *damá-*, *d-mó-* becomes *dumó-*, and *d-mé-* becomes *dimé-*.

²⁴ This sort of process has been noted in other languages. See Andrews 1985:146 for discussion of Yidjin and Dyirbal.

A second causative prefix which consists of a null morpheme (\emptyset -) is used for another class of intransitive verbs. There is a third causative morpheme which consists of vowel lengthening in the object agreement prefix. This is the form found in example (21) above. Most transitive verbs can be causativized with this morpheme.²⁵

A lengthened vowel in this position alternatively indicates agreement with a possessor nominal in the sentence. Possessor agreement is discussed in section 7, causatives in section 8.

2.3.5. The verb root

Verb roots occur in a variety of forms.²⁶ Several verbs without d- have suppletive forms; the choice of which form is used depends on the noun class of the subject (if the clause is intransitive) or direct object (if the clause is transitive). There is one form which begins with b when agreement is with a "y" class nominal and allows no agreement prefix. There is another form which usually begins with w or y when agreement is with a human and "x" class nominal that takes the normal set of agreement prefixes. Some examples follow.

- (27) a. bélas put it (ys) on
 yoólas put it (xs) on
 uyoólas put them (xp) on
- b. búas (ys) become dry
 buyáyas (yp) become dry²⁷
 yuúYas (hxs) become dry
 uúYas (hxp) become dry

²⁵ With some verbs, this causative prefix is not always a long vowel. Normally barénas *to look* never allows an agreement prefix. In the causative form, an object agreement prefix with a short (rather than long) vowel is added to form ébarenas. The causative form of baráas *to thresh* is ébaras *to make thresh*.

²⁶ All verbs have a root except the past stem form of the verb *to come*, which consists of a null root (alternatively analyzed as lengthening of the agreement prefix). This verb has the d- prefix followed by an agreement prefix followed by an agreement suffix with no intervening root. Some examples in the simple past tense are presented in (iv) below.

- (iv) a. daáyam
 d-a- \emptyset -am
 d-1s-come/PAST-1s/PAST
 I came.
- b. dukóoma
 d-gó- \emptyset -uma
 d-2s-come/PAST-2s/PAST
 You (sg) came.
- c. díimi
 d-i- \emptyset -imi
 d-3sm-come/PAST-3sm/PAST
 He came.

²⁷ The singular/plural difference between búas/buyáyas *sg/pl become dry* is the pattern also found with gáartsas/garcáyas *sg/pl run*; it is not confined to "y" class arguments. This root allows a seldom used plural infix.

- c. wáshias throw (hx)
 bisháyas throw (ys)
 giYas throw (yp)

Here is a short list of typical verb roots:

(28)	<u>Verb root</u>	<u>Gloss</u>
a.	ir	<i>die</i>
b.	u	<i>give, x</i>
c.	chi	<i>give, ys</i>
d.	gaarts	<i>run</i>
e.	guchai	<i>lie down</i>
f.	huruT	<i>sit</i>
g.	Gar'	<i>speak/curse</i> ²⁸
h.	gaTamur	<i>knead</i>

2.3.6. The agreement/tense suffix

Every finite verb has a suffix that typically shows agreement with the subject of the clause; this suffix also indicates the tense of the verb. A typical range of agreement/tense suffixes for the third person present tense is given below.²⁹

(29)	3sm/PRES	-ai
	3sf/PRES	-ubo
	3ph/PRES	-aan
	3sx/PRES	-ibi
	3px/PRES	-ien
	3sy/PRES	-ila
	3py/PRES	-itsaN

2.3.7. Summary

I summarize this section on verb morphology with the following chart illustrating the various components of a finite verb and their relative positions in the word.³⁰

(30)	-3	-2	-1	∅	1	2
	NEG	Obj Agr	CAUS/POSS	Root	NONPAST	Subj Agr

3. Monostratal Clauses

3.1. Introduction

Five basic types of clauses have been identified through work done in Relational Grammar (Perlmutter 1984:6). These types are: monostratal clauses, clauses involving revaluations (advancements and retreats), clauses with ascensions (raising and possessor ascension), clause

²⁸ There is a subset of verbs in Burushaski called hypotactic verbs. When these verbs occur without any prefix, word stress falls on the syllable following the root, e.g. *manáas* to become, *mináas* to drink, *gaTáas* to bite. Hypotactic roots are written in this paper with an apostrophe following.

²⁹ These suffixes can be analyzed even further to include a number suffix and a person/class suffix, but the morpheme glosses in this paper will not be given in such detail.

³⁰ In most Burushaski texts a word-final question suffix, *-a*, is included. This can also be analyzed as a separate word.

union clauses, and clauses with dummies. Burushaski has clauses which belong to all five of these categories.

Often in languages, various clausal constructions will be either possible or impossible depending upon the class of verb used. In some cases a construction is disallowed for all verbs. This is the case for the passive construction in many languages of Papua New Guinea (Li and Lang 1978). In other cases a clausal construction may be optional for most verbs but not all. English passives belong to this category. Most English verbs can be passivized but there a few ('want', 'like') which can only be passivized under strictly constrained conditions. In still other cases a construction may be optional and lexically restricted to a small subset of verbs. Antipassive in Choctaw is an example of this. The verbs *banna want/need* and *yimmi believe* occur in both ordinary transitive clauses (with nominative/accusative marking on subjects and direct objects) and in 'double accusative' clauses (with both the subject and the direct object marked accusative). Davies (1986:64-85) analyzes these latter clauses as antipassive constructions.³¹ This one set of verbs can be used optionally in either monostratal transitive clauses or in antipassive clauses. Finally a given construction may be obligatory for a small set of verbs. 3-2 advancement in Seri is an example of this (Marlett 1981:288-298).

Although Burushaski has examples of each of the five main clausal constructions presented above, frequently they are obligatory and governed by a small set of verbs for that particular clause type. In this section I discuss Burushaski monostratal clauses and present a set of verb agreement and case marking rules to account for the relevant data. In section 4, I discuss one kind of revaluation construction; advancements. In section 5, I discuss the other kind of revaluation; retreats (or demotions). In section 6, I discuss multi-predicate constructions, or what have been analyzed traditionally in RG as clause union constructions. In section 7, I present the one form of ascension construction used in Burushaski, possessor ascension. In section 8, I present several types of causative clauses and in section 9, I give an analysis of some impersonal clauses involving dummies.

3.2. Monostratal clauses and basic morphology

A large number of clauses in Burushaski are monostratal. Example (31) is a monostratal intransitive clause with its associated stratal chart showing the grammatical relations of each clausal constituent.

- (31) dasín múue háa le hurúTumo
 dasín mú-u-e há-e le hurúT-umo
 girl/ABS 3sf-father-OBL house,y-OBL in sit-3sf/PAST
 The girl sat in her father's house.

1	LOC	P
dasín	múue háa le	hurúTumo
girl	in her father's house	she sat

Dasín girl is the only subject and triggers subject agreement in the verbal suffix. This nominal is also an absolutive and is marked with ABS case. There is no object to trigger object agreement. *Múu her father* is the possessor and is in oblique case. *Há house* is also in oblique case since it is the object of the postposition *le in*.

Example (32) illustrates a monostratal transitive clause.

³¹ Antipassive in Relational Grammar terms is the name given to a construction in which a nominal that bears the 1 relation in a transitive stratum bears the 2 relation in a succeeding intransitive stratum.

- (32) hilése dasín muyeétsimi
 hilés-e dasín mu-yeéts-imi
 boy-ERG girl/ABS 3sf-see-3sm/PAST
The boy saw the girl.

1 2 P

hilése dasín muyeétsimi
 boy girl he saw her

Hilés *boy* is the subject and triggers subject agreement on the verb. It is also an ergative and is marked with ERG case. Dasín *girl* is the direct object and triggers object agreement (the prefix mu-). Dasín *girl* is also an absolutive and occurs in the ABS case.

As noted in Tiffou and Morin 1982, in the future tense, the subject of a transitive clause such as that in (32) above is not marked with ERG case but rather occurs in ABS case.³² For example:

- (33) hilés dasín muyeéshi
 hilés dasín mu-yeéts-c-i
 boy/ABS girl/ABS 3sf-see-NONPAST-3sm/FUT
The boy will see the girl.

All other case marking and agreement phenomena remain the same for future tense transitive clauses except for the ABS case of the agent. In addition, verbs which can be passivized, causativized or undergo some other grammatical relation changing construction in non-future tenses retain these characteristics when in the future tense. For these reasons I analyze future tense transitive sentences such as (33) as simple monostratal clauses. Burushaski has a quirk in its ERG case marking rule that blocks ERG case in future tense clauses.

Example (34) illustrates a monostratal ditransitive clause.

- (34) hilése dasínmo r toofámuts píish ótimi
 hilés-e dasín-mo r toofá-muts píish o-t-imi
 boy-ERG girl-OBLf to gift,x-PL/ABS present 3px-do-3sm/PAST
The boy presented gifts to the girl.

1 3 2 P

hilése dasínmo r toofámuts píish ótimi
 boy to the girl gifts he-presented-them

Hilés *boy* is the subject. It is marked with ERG case and triggers subject agreement on the verb.³³ Dasín *girl* is the indirect object and is followed by the postposition r. Toofámuts *gifts* is the direct object, occurs in ABS case, and triggers object agreement.

³² There are exceptions to this tendency however. The following example is grammatical only if the subject is in ERG case:

- (v) úne (*ún) maasúum qáum ké ósqaima?
 un-e maasuum qaum ke o-sqan-c-uma
 2s-ERG innocent nation,x also 3ph-kill-NONPAST-2s/FUT
Will you also kill the innocent nation?

³³ For the time being I will ignore the actual structure of the uninflectible verb plus auxiliary predicate. This will be discussed in section 6.

Example (35) shows a transitive clause with a source nominal.

- (35) hilése dasínmo tsum toofá yánimi
 hilés-e dasín-mo tsum toofá i-yán-imi
 boy-ERG girl-OBLf from gift,x/ABS 3sx-take,x-3sm/PAST
The boy took the gift from the girl

In this example hilés *boy* is the subject, is marked with ERG case, and triggers verb agreement in the verbal suffix. Dasín *girl* is the source and is followed by the postposition tsum. Toofá *gift* is the direct object, occurs in ABS case, and triggers object agreement (see footnote).

Finally (36) is an example of a reflexive clause.

- (36) khín dasíne mukhár ésqanumo
 khín dasín-e mu-khár e-sqan-umo
 DEMf.prx girl-ERG 3sf-self,y/ABS 3sy-kill-3sf/PAST
This girl killed herself.

I analyze reflexive clauses in Burushaski as being monostratal. Here the subject khín dasín *this girl* is in ERG case and the direct object mukhár herself is in ABS case. The reflexive pronoun khár self is similar to the class of inalienably possessed nouns; it requires a possessive prefix. In this case the prefix cross-references the antecedent khín dasín this girl. Subject agreement is with khín dasín and object agreement is with the "y" class reflexive pronoun khár.

Based on the data presented thus far on monostratal clauses in Burushaski, the following tentative rules can be proposed.

- (37) Verb agreement rules (working version a)
- The verb agrees with nuclear terms.³⁴
 - A nominal heading a 1 arc determines subject agreement.
 - A nominal heading a 2 arc determines object agreement.
- (38) Case marking rules (working version a)
- A nominal which heads a 3 arc is flagged with the postposition r.³⁵
 - A nominal which heads a Source arc is flagged with the postposition tsum.
 - A nominal which heads a POSS arc is marked with OBL case.³⁶
 - A nominal which is an ergative in a non-future tense clause is marked with ERG case.

³⁴ In Relational Grammar, a 'nuclear term' is a 1 or a 2. An 'object' is a 2 or a 3. 1s, 2s and 3s are referred to as 'term' relations.

³⁵ Case marking rules (4d,f) from section 1 would also need to be added to this list which refer to Locatives being flagged by the postposition le (or ulo) and postpositions requiring their objects to be marked with OBL case etc. Since these rules are not central to the arguments of this paper, I will omit them in most of the statements of case marking rules that follow.

³⁶ I am assuming that possessors head POSS arcs in an NP. Rosen (1987) has proposed that possessors head 1-arcs within an NP, a proposal that I am not able to comment on at this time.

Note that there could also be a fifth case marking rule stating that nominals heading absolutive arcs occur in ABS case. However, since ABS case marking is null, or no marking at all, I will omit reference to ABS case in any further statements of rules.

4. Advancements

A 'reevaluation' is a clausal construction in which a nominal heads arcs with distinct grammatical relations at successive levels (Perlmutter and Postal 1984a:84). There are two types of reevaluation constructions, advancements and retreats. Both are used in Burushaski. In this section I will discuss advancements and in the next I will discuss retreats.

Grammatical relations in RG are arranged in the relational hierarchy $1 > 2 > 3 > \text{nonterms}$. An advancement is any grammatical construction in which a nominal bears a certain grammatical relation at one level and bears the next higher grammatical relation in the hierarchy in the succeeding level. A common advancement construction is passive, in which a nominal bearing the 2 relation in a transitive stratum bears the 1 relation in the succeeding intransitive stratum (Perlmutter and Postal 1983a:18). Burushaski allows five types of advancements: unaccusative advancement, passive, Source-2 advancement, 3-2 advancement and Benefactive-3 advancement.

4.1. Unaccusative advancement

The examples in (39) and (40) show one property which divides all Burushaski intransitive verbs into two large classes, those which have an object agreement prefix and those which do not.

- (39) a.

jáa	áu	háa	tsum duúsimi
jé-e	á-u	há-e	tsum duús-imi
1s-OBL	1s-father/ABS	house,y-OBL	from come.out-3sm/PAST

My father came out of the house.

- b.

síruf hirí	giráshaan	akhóle
síruf hir-i	girát-c-aan	akhóle
only man-PL/ABS	dance-NONPAST-3ph/PRES	here

Only men dance here.

- (40) a.

tshórdimo	hilés	dítalimi
tshórdin-mo	hilés	d-i-tal-imi
morning-in	boy/ABS	d-3sm-wake.up-3sm/PAST

*The boy woke up in the morning.*³⁷

- b.

acaanáak	hilés	iírimi
acaanáak	hilés	i-ír-imi
suddenly	boy/ABS	3sm-die-3sm/PAST

Suddenly the boy died.

Examples (39a) and (39b) invite a straightforward analysis. *Jáa áu my father* and *hirí men* are intransitive subjects, occur in ABS case, and trigger subject agreement in the verb. The examples in (40) are not so clear. *Hilés boy* in both sentences is the subject, occurs in ABS case,

³⁷ The suffix *-mo* on the word *tshórdin* has the meaning of *in* or *during* or *at* and is used on 'time' words such as *tshórdimo in the morning*, *saásaTumo in the evening*, *garúkimo during springtime*, *khúultomo today*, *yarkamaásmo at first*, and the like. It is similar to the feminine oblique case ending except for the fact that all the nouns it attaches to are of the "y" class. The prefix *d-* on the verb *dítalimi* is the *d-* prefix mentioned in section 2.

and triggers subject agreement. But *hilés* also triggers object agreement in these examples, as is evidenced by the prefix *i-* 3sm on the verbs. The question we must ask is "Why is the apparent subject of some intransitive clauses triggering both subject and object agreement in the verb?" The possibility that the examples in (40) are simple reflexive constructions seems unlikely, given both their meaning and the existence of clear cases of reflexives like example (36) in the preceding section, in which a reflexive pronoun is used. Also, if (40a,b) were reflexives, it is odd that there are no transitive forms of these verbs.³⁸

The RG notions of 'unergative' and 'unaccusative' help in the analysis of these types of clauses. Intransitive verbs cross-linguistically divide into two groups, 'unaccusative' and 'unergative' (Perlmutter and Postal 1984a:94ff, Rosen 1984:42). An unaccusative verb requires an initial stratum in which the nominal bears the 2 relation and no nominal bears the 1 relation. An unergative verb requires an initial stratum in which a nominal bears the 1 relation and no nominal bears the 2 relation. Often, grammatical rules are sensitive to this division. For example, in Italian the selection of the perfect auxiliary is determined by the type of intransitive verb used (Perlmutter 1978, Perlmutter 1980, Rosen 1981).

Unergative verbs usually involve action or volition, while unaccusative verbs usually are stative or nonvolitional. There are some well-known exceptions to the active/stative division, as discussed in Rosen 1984, but it holds as a strong universal tendency.

In a clause with an unaccusative stratum, at some succeeding level the 2 often advances to 1 in order to satisfy the Final 1 Law (Perlmutter and Postal 1983c). This is called 'unaccusative advancement'. Clauses with unaccusative verbs are (at least) bistratal, while those with unergative verbs are often monostratal.

With these notions in mind we are able to analyze the examples in (39) and (40). The sentences in (39) contain an initial unergative stratum while those in (40) contain an initial unaccusative stratum. Stratal charts of the (a) examples in each set are given below.

(41)	a.	1	Source	P	
			<i>jáa áu</i>	<i>háa tsum</i>	<i>duúsimi</i>
			my father	from the house	he went out
	b.	2	Tem	P	
		1	Tem	P	
			<i>hilés</i>	<i>tshórdimo</i>	<i>dítalimi</i>
			boy	in morning	he woke up

In example (41a) *jáa áu my father* is only a 1 so it triggers subject agreement only. In example (41b) however, *hilés boy* is both a 2 and a 1 (due to unaccusative advancement). Since the verb agreement rules proposed in (37b,c) do not refer to levels, but to nominals heading 1 and 2 arcs at any level, *hilés* triggers both subject and object agreement.

³⁸ *Dítalas to wake up* is a member of the class of intransitive verbs which have derived causative forms with the causative prefix *s-*. The causative of *dítalas* is *déstalas to wake him up* which in turn can be causativized with the <L> (lengthening) causative morpheme to form *déestalas to make him wake someone up*. However, *dítalas* itself cannot ever be used in a transitive clause, as can, for example, *ésqanas to kill* in example (36) of the preceding section.

liras to die can never be used in a transitive clause, and it has no derived causative form. See section 8 for more on causatives in Burushaski.

Representative lists of Burushaski unergative and unaccusative verbs are given in (42).³⁹

- (42) a. baltáнас - *to pout, be discontented*
 duúsas - *to come/go out, emerge, depart*
 gáartsas - *to run*
 girátas - *to dance*
 gutsháras - *to walk*
 Garáas - *to curse, talk (badly)*
 héras - *to cry*
 nías - *to go*
 sókas - *to descend*
 tshindáas - *to lean on*
- b. dématalas - *to yawn*
 dépirkanas - *to stumble*
 dikhíras - *to become less, be reduced*
 dítalas - *to awaken*
 iGásas - *to rot, go bad*
 iíras - *to die*
 imálas - *to feel shame, be discreet*
 imáanas - *to become*
 iwáalas - *to be lost*
 iwáras - *to become tired*
 yuúYas - *to become dry/thirsty*

The correlation of the presence of the agreement prefix with nonvolitionality, and its absence with volitionality is not absolute, however. *Muwálas* (*wálas* *to fall* with the feminine prefix *mu-*) is the form used for the translation of both English sentences in (43), even though (43b) is volitional.

- (43) a. Marcia fell from the second story window.
 b. Marcia fell right on cue.

While many verbs appear in only one class, others may be either unaccusative or unergative, with corresponding differences in meaning. Unergative syntax correlates with volitionality and unaccusative syntax correlates with nonvolitionality. The volitional sentence in (44a) is monostratal. The nonvolitional sentence in (44b) is bistratal.

- (44) a. sabúur jé tshíl ulo Gúrtsám
 sabúur jé tshíl ulo Gúrts'-am
 yesterday 1s/ABS water,y/ABS in become.sunken-1s/PAST
Yesterday I dived into the water.
- b. sabúur jé tshíl ulo aGúrtsam
 sabúur jé tshíl ulo a-Gúrts'-am
 yesterday 1s/ABS water,y/ABS in 1s-become.sunken-1s/PAST
Yesterday I drowned in the water.

³⁹ Although the words presented here and their English glosses are in the infinitive form, the Burushaski words in (42b) are given with third person singular masculine object agreement prefixes.

4.2. *Passive*

In Relational Grammar a passive construction is characterized universally as one in which a nominal bearing the 2 relation in a transitive stratum bears the 1 relation at the succeeding level.⁴⁰ Such constructions occur in Burushaski for many transitive verbs. Both inflectible verbs and uninflectible verbs can be passivized; however, since the form of the passive differs between the two verb types, I will discuss them separately. I will also give an argument that such clauses are indeed passives, based on the condition on equi victims in Burushaski.⁴¹

⁴⁰ All references to ‘passive’ constructions in this section refer specifically to plain personal passives. See Perlmutter and Postal 1984b:137 for a discussion of other kinds of passive constructions that are used in languages.

⁴¹ It should be noted however, that Burushaski has several ways to omit reference to the subject without using passives. One such way is to use a third person plural agreement suffix on the verb and obligatorily omit any overt third person pronoun. This is a very common strategy used in languages of the world (Keenan 1985:247). The verbal agreement suffix is in the third person plural form and the subject may have an arbitrary referent. See for example the following sentence.

- (vi) ina r hán tofáan yuúcuman
 in-e r hán toofá-an i-ú-c-uman
 3sh-OBL to one,x gift,x-INDEF/ABS 3sm-give,x-NONPAST-3ph/FUT
 They will give him a gift.

There is another construction which might be thought to be a passive at first glance but which is probably best analyzed as a kind of cleft. Compare the following examples.

- (vii) a. iné gúse hín Guláaman yánumo
 iné gús-e hín Guláam-an i-yán-umo
 DEMh woman-ERG one,h slave,m-INDEF/ABS 3sm-buy,m-3sf/PAST
 That woman bought a slave.
- b. hín Guláaman iné gúse hín yánum bám
 hín Guláam-an iné gús-e hín i-yán-um b-ám
 one,h slave,m-INDEF/ABS DEMh woman-ERG 3sm-buy,m-STATPRT be-3sm/PAST
 A slave was bought by that woman. (more literally: A slave the woman bought.)

In the (b) example above the agent is marked by ERG case and the patient is in ABS case, but the position of these nominals is reversed. The verb occurs in the stative participle form and shows agreement with the patient. I have no explanation as to why object agreement should be with the patient in a clefted construction and the agent still be marked with ERG case.

This ‘clefted’ construction is the construction that Morin and Tiffou 1988:510 refer to as the pathetic construction. There are many examples of sentences of this sort, in which either the Agent or Patient can determine agreement on the auxiliary *b* to be.

- (viii) jaNgí ké yárum hína le duró étum báí
 jaNgí ké yárum hín-e le duró é-t-um b-ái
 Jangi also before one-OBL with work 3sy-do-STATPRT be-3sm/PRES
 Jangi is also one who worked with one before (as an apprentice).

Many transitive verbs can occur in this form which do not allow passives of the sort described in the main part of this section. For example:

4.2.1. Passives of uninflectible verbs

Personal passives of uninflectible verbs are quite common.⁴² To form the passive of an uninflectible verb, the auxiliary verb *manáas* 'to become' is used in place of the auxiliary verb *étas* 'to do' which occurs in active clauses.⁴³ The 'agent' in passive constructions is seldom expressed, but when it is, it is followed by the postposition *tsum*.⁴⁴ Some examples are given below.

-
- (ix) hán cíizan sénum bilúm.
 hán cíiz-an sén-um b-ilúm
 one,y thing,y-INDEF/ABS say-STATPRT be-3sy/PAST
 One thing was said.

The examples in their section on prefixed passives seem to clearly be passive constructions under the analysis presented in this paper however. I present their example (10) below.

- (x) a. ne hír-e cel cá-m bá-i
 the MASC man-ERG water Y ABS impound PRET-PTCPL be-3SG MASC SUBJ
 The man has impounded the water.
- b. cel du-cá-m duá
 water Y ABS D-impound PRET-PTCPL be 3SG Y SUBJ
 The water has been impounded.

⁴² Not all uninflectible verbs have grammatical passive counterparts, as the example below illustrates.

- (xi) a. khóne ámi curúT mótimi
 khón-e á-mi curúT mó-t-imi
 ant,x-ERG 1s-mother/ABS bite 3sf-do-3sx/PAST
 The ant bit my mother.
- b. *ámi khón tsum curúT mumánumo
 (My mother was bitten by the ant.)
- c. *ámi curúT mumánumo
 (My mother was bitten.)

⁴³ I lack data to know if a passive of an uninflectible verb can have the auxiliary *b* 'to be' instead of *manáas* 'to become' when simple past or present tense is required, i.e. whether or not the following sentence is grammatical:

- (xii) ?ú dáfa bám
 ú dáfa b-ám
 3p/ABS drive.out be-3ph/PAST
 ?*They were driven out.*

Knowing the answer to this question would be helpful later in section 6, when Burushaski auxiliaries are discussed.

⁴⁴ The postposition *tsum* does not only mark passive agents. The intransitive sentence in (xiii) below has no transitive counterpart. In this case *tsum* is not marking a passive agent but an oblique with the meaning 'by means of'. (The usual instrumental postposition is *aTe* 'on/with'.)

- (xiii) a. bésan cíiz tsum guírcaa a
 bésan cíiz tsum gu-ír-c-aa a
 what thing,y/ABS by 2s-die-NONPAST-2s/FUT QUEST
 By means of what will you die?

(The particle *a* is the unstressed clause final question particle in Burushaski. It can follow nouns, verbs, adverbs, adjectives and other parts of speech.)

- (45) a. jáa ú dáfa ótam
 já-e ú dáfa ó-t-am
 1s-ERG 3p/ABS drive.out 3p-do-1s/PAST
I drove them out.
- b. ú dáfa umánuman
 ú dáfa u-man'-uman
 3p/ABS drive.out 3p-become-3ph/PAST
They were driven out.
- (46) a. jáa ún waziire aazáme kaa Thúmuk gótam
 já-e ún waziire aazám-e kaa Thúmuk gó-t-am
 1s-ERG 2s/ABS prime.minister,m-OBL with introduce 2s-do-1s/PAST
I introduced you to the Prime Minister.
- b. ún waziire aazáme kaa Thúmuk gumánuma
 ún waziire aazám-e kaa Thúmuk gu-man'-uma
 2s/ABS prime.minister,m-OBL with introduce 2s-become-2s/PAST
You were introduced to (met) the Prime Minister.
- (47) a. íne shishámuts táq ótumo
 ín-e shishá-muts táq ó-t-umo
 3sh-ERG window,x-PL/ABS smash 3p-do-3f/PAST
She smashed the windows.
- b. shishámuts (ínmo tsum) táq umánie
 shishá-muts ín-mo tsum táq u-man'-ie
 window,x-PL/ABS 3sh-OBLf by smash 3p-become-3px/PAST
The windows were smashed (by her).

I propose a personal passive analysis for the (b) examples above. A diagram of (47b) is presented below (ignoring the issue of the auxiliary verb - see section 6).

(48)	2	1	P	
	1	Cho	P	
	shishámuts	ínmo tsum	táq umánie	
	windows	by her	they became smashed	

Under this analysis shishámuts *windows* is a 2 in an initial transitive stratum and advances to 1. The initial 1, ín *she*, is put en chômage and assumes the Chômeur relation.⁴⁵ This analysis however, introduces a number of problems with the verb agreement and case marking rules as formulated in (37) and (38).

First, the verb agreement rules in (37) are no longer adequate. Rule (37a) states that the verb agrees with nuclear terms. Both nominals in (48) (shishámuts *windows* and ín *she*) head nuclear term arcs, but the auxiliary umánie *they become* shows agreement only with shishámuts. Also, verb agreement rule (37b) states that a nominal heading a 1 arc determines subject agreement. ín *she* heads an initial 1 arc but does not determine this agreement. If these rules are revised as in (49) below, all of the agreement facts presented here are accounted for, as well as those presented in previous sections.

⁴⁵ Chômeur in French means 'unemployed'. A nominal which is put en chômage is no longer available to assume any grammatical relation or to participate in any grammatical relation changing construction.

- (49) Verb agreement rules (working version b)
- a. The verb agrees with final nuclear terms.
 - b. A final nuclear term which heads a 1 arc (in any stratum) determines subject agreement.
 - c. A final nuclear term which heads a 2 arc (in any stratum) determines object agreement.

Shishámuts windows is a final nuclear term and therefore qualifies to trigger verb agreement. As a 1 it determines subject agreement and as a 2 it determines object agreement, just as we saw with nominals that undergo unaccusative advancement.⁴⁶ The constraint that the verb agrees only with final nuclear terms blocks the 1-chômeur from triggering subject agreement.

The case marking rules in (38) also need revision. The fact that the 1-chômeur in (48) (*in she*) occurs in OBL case and is followed by the postposition tsum needs to be stated. More importantly, case marking rule (38d) states that any nominal which is an ergative in a non-future tense clause is marked with ERG case. *In she* is an initial ergative and the verb is in the past tense, yet this nominal is not marked by ERG case. Again, if the pertinent rules are revised as follows, all of the agreement facts presented here are accounted for, as well as those presented in previous sections.

- (50) Case marking rules (working version b, partial list)
- b. A nominal which is a 1-chômeur or which heads a Source arc is flagged with the postposition tsum.
 - d. A nominal which is an ergative and heads only a 1 arc in a non-future tense clause is marked by ERG case.⁴⁷

The constraint that a nominal be an ergative and head only a 1 arc blocks ERG case marking for the initial 1 of a passive. *In she* is an initial ergative, but since it heads a final chômeur arc it is not marked by ERG case. Since it is a 1-chômeur it is followed by the postposition tsum. (The 1-chômeur is optional in this case, though with many other verbs it is either disallowed or marginally acceptable.) Shishámuts windows is unmarked (in ABS case) by default and occurs sentence initially since it is the final subject.

4.2.2. *Passives of uninflectible verbs with no object agreement*

Recall from section 2 that with many verbs without a d- prefix, "y" class nouns do not trigger object agreement (there is no agreement prefix). This is true also for the auxiliary verb manáas *to become*. In unaccusative constructions with this verb, where an h or "x" class initial 2 determines object agreement a "y" class initial 2 will not. Example set (25) from section 2 is repeated below.

⁴⁶ An alternative analysis to account for the fact that shishámuts 'windows' determines object agreement on the auxiliary verb manáas *to become* will be presented in section 6. For the time being, the fact that shishámuts heads both a final nuclear term arc and a 2 arc is adequate to account for this.

⁴⁷ This constraint will also be necessary in the analysis of antipassive constructions in the next section. The notion 'final ergative' is insufficient because it fails to account for case marking in 2-3 retreat constructions (also discussed in section 5).

- (51) a. sá lálam imánibim
 sá lálam i-man'-ibim
 sun,x/ABS shine 3sx-become-3sx/PSTPRF
The sun had shone.
- b. GéniSh lálam manílum
 GéniSh lálam man'-ilum
 gold,y/ABS shine become-3sy/PSTPRF
The gold had glittered.

"Y" class initial 2s in passives of uninflectible verbs also do not trigger object agreement, as the following examples show.

- (52) a. íne tshíl taDáq étimi.
 ín-e tshíl taDáq é-t-imi
 3sh-ERG water,y/ABS spill 3sy-do-3sm/PAST
He spilled the water.
- b. tshíl (ín tsum) taDáq maními.
 tshíl ín tsum taDáq man'-imi
 water,y/ABS 3sh/ABS by spill become-3sy/PAST
The water was spilled (by him).

There is also a subset of "x" class plural nouns which trigger object agreement in active sentences with uninflectible verbs, yet do not do so in the corresponding passive sentences. I will call these nouns 'seeds' class nouns. I give some examples below.

- (53) a. íne Gunó pháu ótimi
 ín-e Gunó pháu ó-t-imi
 3sh-ERG seed,xp/ABS scatter 3px-do-3sm/PAST
He scattered seeds.
- b. Gunó (ín tsum) pháu manímie
 Gunó ín tsum pháu man'-imie
 seed,xp/ABS 3sh/ABS by scatter become-3px/PAST
Seeds were scattered (by him).
- (54) a. jáa bukák shár ótam
 jé-e bukák shár ó-t-am
 1s-ERG beans,xp/ABS scatter 3px-do-1s/PAST
I scattered the beans (seeds).
- b. bukák shár manímie
 bukák shár man'-imie
 beans,xp/ABS scatter become-3px/PRSPRF
The beans have become scattered.

In all these cases there is object agreement in the verb in the active clauses but no object agreement in the passive clauses.

In order to keep our object agreement rule in (49c) above, we need to add the following statement to the grammar:

(55) Nouns of the ‘seeds’ class do not determine object agreement on the auxiliary manáas.⁴⁸

4.2.3. Passives of inflectible verbs

There is a class of inflectible verbs in Burushaki which have both ‘active’ and ‘passive’ forms. Most of these verbs begin with the d- prefix. In the active form, a stressed object agreement prefix comes between the d- and the verb root. This prefix shows person and number agreement with h and "x" class direct objects, and third person singular (but not plural - see section 2.3.3) agreement with "y" class direct objects. In the passive form an unstressed u- prefix occurs in this position and the first syllable of the root is stressed. I will refer to this u- prefix as the passive prefix.⁴⁹ Some of these verbs are listed in (56) below.

(56)	<u>Active</u>	<u>Passive</u>	<u>Gloss</u>
a.	désalaTas	dusálaTas	<i>wrap up</i>
b.	dímatas	dumátsas	<i>roll up</i>
c.	díqharas	duqháras	<i>split</i>
d.	díshunas	dushúnas	<i>untie</i>
e.	dítsikinas	dutshíginas	<i>hang up</i>
f.	ipháTaras	dupháTaras	<i>skin</i>
g.	déeNGuras	doóNGuras	<i>bend</i>
h.	déshayas	disháyas	<i>stop</i>
i.	iqháras	qaráas	<i>smash</i>
j.	dípirtsas	diphírtsas	<i>pull out</i>

There is some variation in the form of the passive prefix in (56). This is perhaps due to vowel harmony and other factors. The main point to be made here however, is that the passive verb

⁴⁸ This statement would eventually be broadened to include a number of verbs where ‘seeds’ class nouns pattern like "y" nouns in not triggering object agreement. Consider example (ix) below.

(ix)	a.	jáa	ín	iltánam	
		jé-e	ín	i-ltán-am	
		1s-ERG	3sh/ABS	3sm-beat-1s/PAST	
		<i>I beat him.</i>			
	b.	jáa	ún	gultánam	
		jé-e	ún	gu-ltán-am	
		1s-ERG	2s/ABS	2s-beat-1s/PAST	
		<i>I beat you.</i>			
	c.	doobie	gaTóN	taními	
		doobí-e	gaTóN	ltan-ími	
		washerwoman-ERG	clothing,yp/ABS	beat-3sm/PAST	
		<i>The washerwoman beat the clothes.</i>			
	d.	gúse	makái	tanúmo	
		gús-e	makái	ltan-úmo	
		woman-ERG	corn,xp	beat-3sf/PAST	
		<i>The woman beat the corn.</i>			

In (ix.d) a ‘seeds’ class noun makái ‘corn’ does not trigger object agreement. (The l of ltánas ‘to beat’ deletes word-initially; it may also be analyzed as a separate prefix.) This is an idiosyncratic property of this verb; with most other inflectible verbs and with uninflectible verbs, makái does trigger object agreement. I do not know how many verbs there are in this class.

⁴⁹ In a broader context this could be called an intransitive prefix.

always has this passive morpheme and does not show object agreement at all. Let me illustrate with some sentence examples.

- (57) a. hamíide haránC détsanai
 hamíid-e haránC d-é-tshan-ai
 Hamid-ERG pitchfork,y/ABS d-3sy-straighten-3sm/PRSPRF
Hamid has straightened the pitchfork.
- b. haránC dutshánila
 haránC d-u-tshán-ila
 pitchfork,y/ABS d-PASS-straighten-3sy/PRSPRF
The pitchfork has been straightened.
- (58) a. dasíne bamphú dépaltubom
 dasín-e bamphú d-é-phalt-ubom
 girl-ERG balloon,x/ABS d-3sx-burst-3sf/PSTPRF
The girl had burst the balloon.
- b. bamphú (dasínmo tsum) dumpháltibim
 bamphú dasín-mo tsum d-u-phált-ibim
 balloon,x/ABS girl-OBLf by d-PASS-burst-3sx/PSTPRF
The balloon had been burst (by the girl).
- (59) a. shaafiáa makái dóshulubo
 shaafiá-e makái d-ó-shul-ubo
 Shafia-ERG corn,xp/ABS d-3px-shell-3sf/PRSPRF
Shafia has shelled the corn (from the cob).
- b. makái dushólie
 makái d-u-shól-ie
 corn,xp/ABS d-PASS-shell-3px/PRSPRF
The corn has been shelled.
- (60) a. íne jé dápaTarimi
 ín-e jé d-á-phaTar-imi
 3sh-ERG 1s/ABS d-1s-accomodate-3sm/PAST
He accommodated me.
- b. jé dumpháTaram
 jé d-u-pháTar-am
 1s/ABS d-PASS-accomodate-1s/PAST
I was accommodated.
- (61) a. íne jé dápirtsimi
 ín-e jé d-á-phirts-imi
 3sh-ERG 1s/ABS d-1s-pull.out-3sm/PAST
He pulled me out.
- b. jé diphírtsam.
 jé d-u-phírts-am
 1s/ABS d-PASS-pull.out-1s/PAST
I was pulled out.

If we account for this unstressed u- prefix by positing a personal passive analysis for the (b) examples above, the stratal chart for (58b) would have the following form:

(62)	2	1	P	
	1	Cho	P	
	bamphú	dasínmo	tsum	dupháltimi
	balloon	by the girl		it was burst

Bamphú *balloon* is a final nuclear term and also heads a 1 arc and thus determines subject agreement. Dasín *girl* is a 1-chômeur and is followed by the postposition tsum *from*.

The problem with this analysis is that bamphú fails to trigger object agreement, although it is both a final nuclear term (a subject) and heads a 2 arc. We can account for this by adding the following statement to the set of verb agreement rules presented thus far:

(63) The u- prefix registers passive on inflectible verbs and blocks object agreement.⁵⁰

Passive morphology is indicated by the u- prefix on the verb dupháltimi *it was burst* and therefore blocks the occurrence of an object agreement prefix.⁵¹

⁵⁰ Not every verb which begins with d- and the u- prefix necessarily has a corresponding active form. There is no corresponding transitive form of dupháreskinas *to spread* (as in 'a rash spreads'), i.e. *dépareskinas. Such verbs show no object agreement.

⁵¹ An alternative to the personal passive analysis for the examples above is to posit an impersonal passive. Example (53b) under this analysis is presented below in diagram form.

(xv)	2	1	P	
	Cho	1	P	2
	Cho	Cho	P	1
	bamphú	dasínmo	tsum	dupháltimi
	balloon	by the girl		it was burst

In this case a silent third person plural "y" class dummy comes in as 2 and puts the initial 2 en chômage and advances to 1. Burushaski would employ the brother-in-law option for subject agreement and therefore the features of the initial 2 are relevant for subject agreement. The dummy, since it heads both a final nuclear term arc and a 2 arc, triggers object agreement in the verb with the unstressed third person plural prefix u- (with allomorphs i-, oó- and Ø-).

In passives of uninflectible verbs, the auxiliary verb manáas *to become* is used. Since manáas never shows agreement with "y" class nouns (see discussion above), there is no prefix.

In this analysis, there is no 'passive' prefix and we need no constraint saying that passive morphology blocks object agreement. Object agreement is determined by independent principles relating to "y" class plural pronouns. The grammar would have to prohibit 'seeds' class nominals from being final 1s in passives.

One disadvantage of the impersonal passive analysis is that it fails to explain why the u- prefix would have allomorphic variation when showing agreement with a third person plural "y" class dummy, yet have no such variation when showing agreement with a third person plural h or "x" class 2 (direct object) of an unaccusative or transitive verb. I lack data to argue further for either of these two analyses.

It should be noted that neither personal nor impersonal passives interact with any other advancement or retreat constructions (i.e. not with 3-2 advancement, Source-2 advancement, 2-3 retreat, antipassive or inversion). Also, there are no impersonal passives of intransitive verbs.

4.2.4. An argument for passive based on equi

This section presents an argument supporting a passive analysis of these clauses. Specifically it supports the claim that the ‘patient’ is the final 1 of the clause.

In Burushaski, clausal complements of the verbs *rái étas to want*, *pasán étas to like* and *faisalá étas to decide* have verbs which occur in the infinitival form followed by the postposition *r to*.⁵² When the subject of the complement is not coreferential with the subject of the main clause, it must appear overtly. When the two subjects are coreferential the complement subject may not appear overtly. Some examples follow.

- (64) a. *jáa ún níasa r rái écabaa*
jé-e ún ní-as-e r rái é-t-c-abaa
 1s-ERG 2s/ABS go-INF-OBL to want 3sy-do-NONPAST-1s/PRES
I want you to go.
- b. *jáa níasa r rái écabaa*
jé-e ní-as-e r rái é-t-c-abaa
 1s-ERG go-INF-OBL to want 3sy-do-NONPAST-1s/PRES
I want to go.
- c. **jáa jé níasa r rái écabaa*
(I want to go.)

⁵² When the direct object is a complement clause, the complement verb is sometimes not followed by *r to*.

- (xvi) *úe dasiwants míma r miúas rái ayécaan*
ú-e dasin-ants mí-e r mi-ú-as rái a-é-t-c-aan
 3p-ERG girl-PL/ABS 1p-OBL to 1p-give,h-INF want NEG-3sy-do-NONPAST-3ph/PRES
They do not want to give girls to us (in marriage).

I do not understand the conditions on the presence or absence of *r* in these cases, but it does not appear to be relevant to the discussion of equi in this section.

Sometimes in sentences with *rái to want*, the matrix subject is a possessor and the auxiliary *b to be* or *manáas to become* is used in the main clause. The complement may or may not be followed by *r to*.

- (xvii) a. *ámine gánas rái bilá ké*
ámin-e gán-as rái b-ilá ké
 RELhs-ERG take,y-INF want be-3sy/PRES COMP
Whoever wants to take (it)... (Lit. Whoever's desire to take is...)
- b. *úu úmie búT rái meíbila ziaadatar*
u-u u-mi-e búT rái man'-c-bila ziaadatar
 3p-father 3p-mother-ERG much want become-NONPAST-3sy/FUT usually
Their father and mother will usually want very much (to choose partners for their children).
(Lit. Their father's and mother's great desire usually will be.)

Rái to want can also occur in an inversion construction as is shown below (see section 5 for discussion of inversion in Burushaski).

- (xviii) *ágar úa r rái bilá ké*
ágar ú-e r rái b-ilá ké
 if 3p-OBL to want be-3sy/PRES COMP
If they want to...

This condition is commonly called ‘Equi’, and rules are typically formulated in grammars based on what coreferential nominals cannot appear overtly in the subordinate clause, i.e. what nominals are equi ‘victims’. The following example shows that 2s are not equi victims in Burushaski.

- (65) gúse híre ín mudélasa r
 gús-e hír-e ín mu-del-as-e r
 woman-ERG man-ERG 3sh/ABS 3sf-hit-INF-OBL to
- rái ayécubo
 rái a-é-t-c-ubo
 want NEG-3sy/PRES-do-NONPAST-3sf/PRES
The woman doesn't want the man to hit her.

In (65) *ín her* is the 2 of the complement clause and it is not an equi victim.

The following sentences show that the ‘Patient’ nominal in a passive complement clause is an equi victim. (66a) is a monostratal transitive clause; *jé I* is a 2. (66b) is the passive counterpart of this sentence in which the initial 2 has advanced to 1.

- (66) a. poliise jé bán átuman
 poliis-e jé bán á-t-uman
 police-ERG 1s/ABS imprison 1s-do-3ph/PAST
The police imprisoned me.
- b. jé bán amánam
 jé bán a-man'-am
 1s/ABS imprison 1s-become-1s/PAST
I was imprisoned.

(67a,b) show that when this passive clause is the complement of *rái want*, *jé I* may not appear overtly, as would be predicted if *jé* is a final 1.

- (67) a. jáa bán amánasa r rái ayétam
 jé-e bán a-man'-as-e r rái a-é-t-am
 1s-ERG imprison 1s-become-INF-OBL to want NEG-3sy-do-1s/PAST
I did not want to be imprisoned.
- b. *jáa jé bán amánasa r rái ayétam
 1s/ABS
(I did not want to be imprisoned.)

The examples below illustrate equi with an inflectible verb.

- (68) a. íne ún dukópirtsimi
 ín-e ún d-go-phirts-imi
 3sh-ERG 2s/ABS d-2s-pull.out-3sm/PAST
He pulled you out.
- b. ún dipírtsuma
 ún d-u-phirts-uma
 2s/ABS d-PASS-pull.out-2s/PAST
You were pulled out.

- c. úne dipírtsasa r rái ayétuma
 ún-e d-u-phirts-as-e r rái a-é-t-uma
 2s-ERG d-PASS-pull.out-INF-OBL to want NEG-3sy-do-3sm/PAST
You didn't want to be pulled out.

- d. *úne ún dipírtsasa r rái ayétuma
 (*You did not want you to be pulled out.*)

Example (68a) shows a monostratal clause in which ún *you* is the direct object. (68b) is a passive clause in which ún is a final subject. In (68c) this nominal is not present due to equi; its arc is 'erased'. (68d) shows that when this nominal is present the result is ungrammatical.

When a matrix clause with an equi controlling verb (such as rái *to want*) contains a complement with a passivized verb (whether inflectible or uninflectible), the 'patient' in the complement is an equi victim. This, together with the verb agreement facts noted earlier, provides evidence that the 'patient' in a passive clause is a final 1.

4.3. Source-2 advancement

As noted in section 1, an object agreement prefix can be determined by a Source nominal.

- (69) hilése dasínmo tsum pén mushíirimi
 hilés-e dasín-mo tsum pén mu-shíir-imi
 boy-ERG girl-OBLf from pen,x/ABS 3sf-snatch-3sm/PAST
The boy snatched the pen from the girl.

This sentence would be grammatical without the Source nominal being present; if present, the Source is flagged with the postposition tsum *from*. The agreement prefix is obligatory and indicates the Source.⁵³ In no case can object agreement be with pén *pen*.

These facts can be accounted for by positing obligatory Source-2 advancement for the verb shíiras *to snatch*. Example (69) is presented below in chart form:

(70)	1	Source	2	P
	1	2	Cho	P
	hilése	dasínmo	tsum pén	mushíirimi
	boy	from the girl	pen	he snatched (from) her

In the Source-2 advancement analysis there are two different nominals heading 2 arcs. Only dasín *girl* is a final nuclear term however, and therefore it and not pén *pen* determines object agreement. Dasín also heads a Source arc and is followed by the postposition tsum *from*. Hilés *boy* is a final 1 so it triggers subject agreement. It also is an ergative and heads only a 1 arc, so it is marked with ERG case. As a 2-chômeur, pén is unmarked.

With the verb shíiras *to snatch*, Source-2 advancement is obligatory. With at least one other verb it is optional.⁵⁴ The most common usage of the verb duGárusas *to ask* is in a monostratal clause such as in (71).

⁵³ If a Source is not implied, another verb is used, such as GaJám étas *to grab* or tshúas *to take*.

⁵⁴ The verb dúmaras *to request* also allows a Source-2 construction.

- (xix) a. jáa ún tsum bésan dúmaram
 jé-e ún tsum bésan d-mar-am
 1s-ERG 2s/ABS from something/ABS d-request-1s/PAST
I requested something from you.

- (71) búT síse (hamíid tsum) sawáaliN duGárusuman.
 búT sís-e hamíid tsum sawáal-iN d-Garus-uman
 many people-ERG Hamid/ABS from question,y-PL/ABS d-ask-3ph/PAST
Many people asked questions (of Hamid).

This sentence is straightforwardly accounted for by the rules proposed thus far if it is analyzed as a monostratal clause.

- (72) 1 Source 2 P
-
- búT síse Hamíid tsum sawáaliN duGárusuman
 many people from Hamid questions they asked

There is no object agreement with "y" class direct object sawáaliN *questions*; the form of this verb in this construction remains constant, whether one or several questions are being asked.⁵⁵ The verb duGárusas is similar in this way to some other transitive verbs which require direct objects that are "y" class nouns and allow no agreement prefix, such as sénas *to say*, Gatánas *to read*, and girminas *to write*.⁵⁶ The verb duGárusas *to ask* also occurs in sentences such as the following:

- (73) búT síse hamíid sawáaliN déGurusuman.
 búT sís-e hamíid sawáal-iN d-é-Garus-uman
 many people-ERG Hamid/ABS question,y-PL/ABS d-3sm-ask-3sm/PAST
Many people questioned Hamid.

Two things are different in this example. One is that the verb agrees with hamíid *Hamid* as direct object. Second, hamíid is in ABS case.⁵⁷ Assuming Source-2 advancement, we could diagram (73) as follows.

-
- b. jáa ún tsum bésan dukómaram
 d-gó-mar-am
 d-2s-request-1s/PAST
I requested you something.

The sense in example (xix.b) seems to be that I am requesting something from you for your benefit. This usage is very limited however, and is not acceptable to some speakers.

⁵⁵ It is unclear what the u- after the d- prefix is doing in the form duGárusuman *they asked*. It is possibly simply inserted epenthetically to break up the disallowed dG consonant cluster.

⁵⁶ Some other transitive verbs which do not allow an object agreement prefix are mináas *to drink*, hikínas *to learn*, thías *to pour*, wáaras *to cover*, and Garkáas *to catch*. These verbs usually occur in monostratal clauses and require objects of the "y" class, which may explain the lack of an agreement prefix. (One of them, Garkáas *to catch*, may allow an "x" class object. I have an example of this verb in a sentence with tharií *ball* as the direct object. tharií is an "x" class noun.)

⁵⁷ I have a few examples in my data where, when this verb is showing agreement with the Source, the Source nominal is followed by the postposition tsum *from*. In most cases however it occurs in ABS case. In elicitation also, ABS was given as the proper case for the Source when this verb agrees with it. For the cases where the Source postposition is allowed, the rule in (75) would have to be marked as optional.

(74)	1	Source	2	P
	1	2	Cho	P

búT síse hamíid sawáaliN déGurusuman
 many people Hamiid questions they-asked-him

Now hamíid is a final 2 and triggers object agreement. Since hamíid is not followed by the postposition tsum *from* however, the rule for this marker must be revised to prohibit it when the nominal heading a Source nominal in a clause with duGárusas *to ask* also heads a final 2 arc.

This rule now has the following form:

(75) A nominal which is a 1-chômeur, or which heads a Source arc (and is not the final 2 of duGárusas) is flagged with the postposition tsum.⁵⁸

4.4 3-2 advancement

Burushaski has at least five verbs that take recipients.⁵⁹ One of these, the uninflectible verb piish *to present*, was shown in section 3, example (34) in a monostratal clause and is shown here as (76).

⁵⁸ Alternatively, it could be said that tsum *from* flags final Sources, and that shíiras *to snatch* idiosyncratically flags its final 2 with tsum. This would then be an instance of quirky case marking associated with this verb.

The case marking rule stated in (75) on the other hand expresses a generality which applies not only to the marking of Sources, but also to the marking of indirect objects and Possessors. What these rules have in common is that none of them make reference to the levels at which a nominal bears these relations. If a nominal heads one of these arcs at any level, it receives the appropriate marking. More will be said about the case marking of indirect objects and Possessors in the next section and in section 7.

⁵⁹ There are other constructions in which initial indirect objects occur, however. There is a set of verbal nouns which are followed by the auxiliary verb étas *to do*. Some examples follow.

- (xx) a. gusé tharmása r sháN é
 gusé tharmás-e r sháN é-t-0
 DEM3xs thermos-OBL to care,y 3sy-do-IMP
 Take care of this thermos!
- b. jáa qhudáaya r shúkuro étam
 jé-e qhudáa-e r shúkuro é-t-am
 1s-ERG God-OBL to thanks,y 3sy-do-1s/PAST
 I thanked God (Lit., I did thanks to God.)
- c. jáa úa r Sháu étam
 jé-e ú-e r Sháu é-t-am
 1s-ERG 3p-OBL to slap,y 3sy-do-1s/PAST
 I slapped them. (Lit., I did a slap to them.)

The verbal noun is the direct object of the clause; it always triggers third person "y" class object agreement (using the prefix é-) and occurs in ABS case. The thing being acted upon is the indirect object and is followed by the postposition r *to*. This nominal can never trigger agreement in the auxiliary étas as the following example shows.

- (76) hilése dasínmo r toofámuts píish ótimi.
 hilés-e dasín-mo r toofá-muts píish ó-t-imi
 boy-ERG girl-OBLf to gift,x-PL/ABS present 3px-do-3sm/PAST
The boy presented a gift to the girl.

The initial/final direct object triggers verb agreement and occurs in ABS case while the initial/final indirect object is followed by the postposition *r to*. However four other verbs which take recipients obligatorily follow a different pattern. Consider the following sentences.

- (77) a. jáa ínmo r hán cáGan mósabayam.
 já-e ín-mo r hán cáGa-an mó-s-abayam
 1s-ERG 3sh-OBLf to one story,y-INDEF/ABS 3sf-tell-1s/PRSPRF
I have told her a story.
- b. jáa ínmo r hán gitáapan muchíabayam
 já-e ín-mo r hán gitáap-an mu-chí-abayam
 1s-ERG 3sh-OBLf to one book,ys-INDEF/ABS 3sf-give,ys-1s/PRSPRF
I have given her a gift.
- c. jáa ínmo r káman brás muGúnabayam.
 já-e ín-mo r káman brás mu-Gún-abayam
 1s-ERG 3sh-OBLf to some rice,yp/ABS 3sf-give,yp-1s/PRSPRF
I have given her some rice.
- d. jáa ínmo r hán tofáan muúwabayam.
 já-e ín-mo r hán toofá-an mu-ú-abayam
 1s-ERG 3sh-OBLf to one gift,x-INDEF/ABS 3sf-give,x-1s/PRSPRF
I have given her a gift.

The difference between these sentences and the one in (76) is in the object agreement on the verb. Rather than showing agreement with the patient, the verb shows agreement with the recipient. Positing obligatory 3-2 advancement for these verbs, we could diagram (77d) as follows.

- (78) 1 3 2 P
 1 2 Cho P
-
- jáa ínmo r hán tofáan muúwabayam
 I to her a gift I have given her

Under this analysis, of the two nominals heading 2 arcs, only *ínmo her* is a final nuclear term and therefore it and not *hán tofáan a/one gift* properly triggers direct object agreement on the verb. The generalization given in (38a) also accounts for the presence of the postposition *r to* since it does not refer to any particular level. *ínmo* heads a 3 arc; therefore the postposition *r* must occur.

- (xxi) *jáa úa r Sháu ótam
 já-e ú-e r Sháu ó-t-am
 1s-ERG 3p-OBL to slap,y 3p-do-1s/PAST
(I slapped them.)

These verbal noun plus *étas to do* constructions are not the same syntactically as clauses with uninflectible verbs plus auxiliaries such as those illustrated in section 3, example (34) and discussed in section 6.

4.5. Benefactive-3 advancement

The postposition gáne most often follows a verb in the infinitive form and indicates Purpose, as in the following example.

- (79) zamindáar tshíl yálase gáne mála r ními.
 zamindáar tshíl yál-as-e gáne mál-e r ní-imi
 farmer,m/ABS water,y apply-INF-OBL for field,y-OBL to go-3sm/PAST
The farmer went to the field to water (it).

However gáne can also mark Benefactives.

- (80) jáa úne gáne cáí tayáar étam.
 já-e ún-e gáne cáí tayáar é-t-am.
 1s-ERG 2s-OBL for tea,y/ABS prepare 3sy-do-1s/PAST
I prepared tea for you.

Although the sentence in (80) is perfectly acceptable and would be used in certain contexts, the same idea is more commonly expressed this way:

- (81) jáa góo r cáí tayáar étam
 já-e gó-e r cáí tayáar étam
 1s-ERG 2s-OBL to tea,y/ABS prepare 3sy-do-1s/PAST
I prepared tea for you.

In (81) the second person nominal is marked with r to rather than gáne for.⁶⁰ Although the exact constraints on the usage of the constructions in (80) and (81) are unclear, positing Benefactive-3 advancement accounts for the difference in the two. (81) would be diagrammed like this:

- (82) 1 Ben 2 P
 1 3 2 P
-
- | | | | |
|-----|---------|-----|---------------|
| jáa | góo r | cáí | tayáar étam |
| I | for you | tea | I prepared it |

In order to block the postposition gáne for and permit indirect object marking rule (38a) to operate, the case marking rules that refer to oblique relations would have the following additional line:

- (83) A nominal heading a final Benefactive arc is flagged with the postposition gáne.

To summarize this section, I will gather together the current versions of the verb agreement and case marking rules that have been presented thus far.

- (84) Verb agreement rules (working version c)
- a. The verb agrees with final nuclear terms.
 - b. A final nuclear term which heads a 1 arc (in any stratum) determines subject agreement.

⁶⁰ The shape of the second person pronoun in these two examples is different. In (80) the second person singular personal pronoun ún is used. In (81) the second person singular object agreement prefix gó- is used.

- c. A final nuclear term which heads a 2 arc (in any stratum) determines object agreement.
- (85) Case marking rules (working version c)
- a. A nominal which heads a 3 arc (in any stratum) is flagged with the postposition r.
- b. A nominal which is a 1-chômeur, or which heads a Source arc (in any stratum, and which is not the final 2 of duGárusas) is flagged with the postposition tsum.
- c. A nominal which heads a POSS arc (in any stratum) is marked with OBL case.
- d. A nominal which heads a final Benefactive arc is flagged with the postposition gáne.
- e. A nominal which is an ergative and heads only a 1 arc (in any stratum) in a non-future tense clause is marked by ERG case.
- f. The u- prefix registers passive on uninflectible verbs and blocks object agreement.
- g. Nouns of the ‘seeds’ class do not determine object agreement on the verb manáas.

5. Retreats

In Relational Grammar terminology, a nominal ‘retreats’ when it bears two grammatical relations at successive levels in a clause, and the later relation is lower on the relational hierarchy (1 > 2 > 3 > nonterms). Burushaski has three retreat constructions: 2-3 retreat, inversion, and antipassive.

5.1. 2-3 retreat

The verb Garáas *to talk (badly)* can appear in two types of clauses. When there is an addressee, the agent is marked by ERG case and the addressee is followed by the postposition r *to*.

- (86)

íne	hilése	r	Garícubo
ín-e	hilés-e	r	Gar'-c-ubo
3sh-ERG	boy-OBL	to	talk.badly-NONPAST-3sf/PRES

She scolds the boy.

If either ín *she* or hilés *boy* in (86) were in ABS case, the sentence would be ungrammatical. However, when there is no addressee, the agent does occur in ABS case.

- (87)

ín	búT	Garícubo
ín	búT	Gar'-c-ubo
3sh/ABS	much	talk.badly-NONPAST-3sf/PRES

She curses a lot.

To analyze both of these sentences as being monostratal, (86) with a 1 and a 3 and (87) with only a 1, would fail to account for the ERG case marking of ín *she* in (86). Positing obligatory 2-3 retreat for clauses containing Garáas *to talk (badly)* which have initial addressees could provide a solution. The example sentences above would be diagrammed this way:

- (88) a.

1	P
ín	Garícubo
she	curses

b.	1	2	P	
	1	3	P	
<hr style="border-top: 3px double #000;"/>				
	ine	hiléser	Garícubo	
	she	to the boy	scolds	

In this analysis, when an addressee is present in a clause containing Garáas, it is obligatorily demoted to 3 and is therefore necessarily followed by the postposition r. Since no nominal heads both a final nuclear term arc and a 2 arc, there is no object agreement on the verb. The agent in (88b) is an ergative heading only a 1 arc and is thus marked with ERG case.

Another verb which might be analyzed as requiring a 2-3 retreat construction is barénas *to look*. Consider the following example.

(89)	jáa	úna	r	mál	ulo	barénam
	jé-e	ún-e	r	mál	ulo	barén-am
	1s-ERG	2s-OBL	to	field,y/ABS	in	look.at-1s/PAST
	<i>I looked at you in the field.</i>					

Whenever a stimulus is present in a clause with barénas, it must be followed by the postposition r *to* and the experiencer must be marked with ERG case. The verb never allows an agreement prefix (except when causativized - see section 8). If we assume a 2-3 retreat analysis for (89), ún *you* is a 3 and is thus followed by the postposition r. Since it is not a final nuclear term, it does not trigger object agreement. Jé *I* is an ergative heading only a 1 arc and receives ERG case marking.

One possible problem with an obligatory 2-3 analysis for clauses with barénas *to look* however comes from sentences without a stimulus present. In the examples in my data, when barénas is used without a stimulus, but with an adverb, as in 'to look up', the subject is still marked with ERG case.

(90)	béshal	hamíide	yáTne	barénimi	ké
	béshal	hamíid-e	yáTne	barén-imi	ké
	when	Hamid-ERG	upwards	look.at-3sm/PAST	COMP
	<i>When Hamid looked up ...</i>				

The simplest analysis for the sentence in (90) is as a monostratal unergative construction. This fails to account for the ERG case marking on hamíid *Hamid*, however. If barénas is lexically marked as requiring an initial 2, whether specified or not, we could keep a straightforward 2-3 retreat analysis. Example (90) is diagrammed below.⁶¹

(91)	1	2	Loc	P
	1	3	Loc	P
<hr style="border-top: 3px double #000;"/>				
	hamíide	UN	yáTne	barénimi
	Hamid	UN	upwards	he looked

5.1.1. Two anomalies

There are two verbs which occur in constructions similar to 2-3 retreat, yet do not fit into the above analysis. These are gaTáas *to bite* and duúnas *to arrest*. Examples with these verbs are presented below.

⁶¹ I will ignore the actual structure of the predicate with the adverb yáTne *upward*, as it is not relevant to this discussion.

- (92) a.

jáa	báalt	tse	gaTáam
jé-e	báalt	tse	gaT'-am
1s-ERG	apple,x/ABS	onto	bite-1s/PAST

I bit the apple.
- b.

poliise	jáa	tse	duúnimi
poliis-e	jé-e	tse	duún-imi
policeman-ERG	1s-OBL	onto	arrest-3sm/PAST

The policeman arrested me.

Agents with these verbs must be marked by ERG case.⁶² Patients must be followed by the postposition tse *onto*. They cannot occur in ABS case without this postposition and they cannot be followed by the postposition r *to*. There seem to be three choices for analysis of the examples in (92), each of which presents problems. The alternatives are diagrammed in (93).

- (93) a.

1	Mal	P
<hr/>		
poliise	jáa tse	duúnimi
policeman	onto me	he caught
- b.

1	Mal	P
1	2	P
<hr/>		
poliise	jáa tse	duúnimi
policeman	onto me	he caught
- c.

1	2	P
1	Mal	P
<hr/>		
poliise	jáa tse	duúnimi
policeman	onto me	he caught

Example (93a) gives no account for ERG case marking on the subject. Example (93b) gives no account for the lack of object agreement on the verb. Example (93c) violates the Oblique Law which requires that any nominals heading oblique arcs head them in the initial stratum. It is

⁶² There are two unergative verbs with subjects in ABS case, homophonous to gaTáas *to bite* and duúnas *to arrest*, which historically may be related yet synchronically appear in different constructions with different meanings. These are presented in the following examples.

- (xxii) a.

cháSh	oóTis	ulo	gaTilum
cháSh	a-úTis	ulo	gaT'-ilum
thorn,y/ABS	1s-foot,y/ABS	in	pierce-3sy/PSTPRF

The thorn had pierced my foot.
- b.

jóTisho	duúibaan
jóT-isho	duún-c-baan
young-PLhx/ABS	begin-NONPAST-3ph/PRES

The young ones begin.

These examples would best be analyzed as unergative monostratal clauses. However, duúnas *to begin* also occurs with subjects marked with ERG case when the thing begun is made explicit.

unclear which of these analyses (if any) is correct for clauses with duúnas and gaTáas. For the present, I assume that the subjects of these verbs are idiosyncratically marked with ERG case.⁶³

To account for the agreement and case marking facts presented in this section, the rules presented at the end of the preceding section need no revision aside from an additional statement that Burushaski allows 2-3 retreat with a subset of verbs.

5.2. Inversion

Burushaski has a set of verbs similar to those described in Harris 1984:282 for Georgian and other languages, known as 'affective verbs' or 'psychological predicates'. These include yaqíin étas *to believe*, záp étas *to memorize*, leél étas *to know*, afsúus étas *to anguish*, rái étas *to want*, and qhaahísh étas *to wish*. The first three of these are shown in examples (94a-c).

- (94) a.

úe	ité	yaqíin	ayécaan
ú-e	ité	yaqíin	a-é-t-c-aan
3p-ERG	DEM,3sy	believe	NEG-3sy-do-NONPAST-3ph/PRES

They don't believe that.
- b.

jáa	Tók	gitáap	záp	étam
jé-e	Tók	gitáap	záp	é-t-am
1s-ERG	entire	book,y/ABS	memorize	3sy-do-1s/PAST

I memorized the entire book.
- c.

teélaTe	muúyare	leél	écai
teélaTe	mu-úyar-e	leél	é-t-c-ai
in.that.way	3sf-husband-ERG	know	3sy-do-NONPAST-3sm/PRES

In that way her husband will know.

These sentences are straightforwardly analyzed as monostratal clauses with uninflectible verbs. These verbs can also occur in a different clause type.

- (95) a.

ité	úa	r	yaaqín	apí
ité	ú-e	r	yaaqín	a-b-í
DEM,3sy	3p-OBL	to	believe	NEG-be-3sy/PRES

They don't believe that.
- b.

Tók	gitáap	jáa	r	záp	bilúm
Tók	gitáap	jé-e	r	záp	b-ilúm
entire	book,y/ABS	1s-OBL	to	memorize	be-3sy/PAST

I memorized the entire book.

⁶³ In order to clarify the analysis of clauses with barénas *to look*, gaTáas *to bite*, and duúnas *to arrest*, it would be helpful to see some unergative Burushaski verbs which allow 3s, similar to the English verb *to sing*. Then we could see how the subject of such a verb is marked.

I have not found any such verbs however. For example, the Burushaski counterpart to the English unergative sentence *I sing to her* is either *I sing it to her* with the inflectible verb éGaras *to sing/play* showing agreement with what is sung or played, or *I do a song to her* with the verbal noun Gár *song* plus the auxiliary étas *to do* showing agreement with Gár. This latter structure is the pattern for the Burushaski equivalents of many English unergative verbs.

c.	ína	r	leél	apí	bésan	bilá	ké
	ín-e	r	leél	a-b-í	bésan	b-ilá	ké
	3sh-OBL	to	know	NEG-be-3sy/PRES	what	be-3sy/PRES	COMP

*He does not know what it is.*⁶⁴

The sentences in (94) are superficially transitive. Those in (95) are superficially intransitive. The nominal which is sentence-initial and marked with ERG case in the examples in (94), is not sentence-initial and is followed by the postposition *r* to in the examples in (95). Also, the auxiliary *étas* to do in (94a-c) is replaced by *b* to be in (95a-c).⁶⁵

In addition to the verbs just mentioned which can occur in both transitive and intransitive clauses, there is at least one other affective verb which can occur only in the second, intransitive clause type. This is the word for 'to need'.⁶⁶

(96)	jáa	r	ité	gitáap	awaáji	bilá
	jé-e	r	ité	gitáap	awaáji	b-ila
	1s-OBL	to	DEM _{sy}	book,y/ABS	need	be-3sy/PRES

I need that book.

⁶⁴ *Leél* to know can be used in several clause types in Burushaski. In addition to the examples in (94c) and (95c), it can occur in the passive substitute form with *manáas* to become as in the following example:

(xxiii)	leél	manáasa	r
	leél	man'-as-e	r
	know	become-INF-OBL	?

When it became known...

In this case the postposition *r* functions as a clause linking mechanism similar to the conjunctive participle *-ñ* and indicates that one action or state has been completed and another has begun, and both are interdependent. The difference between *-ñ* and *-r* is that *-ñ* signals same subject reference between the two clauses and *-r* signals switch reference.

Leél can also occur in an unaccusative construction where there is no direct object.

(xiv)	ágar	leél	umánuman	ké	ósqaibaan
	ágar	leél	u-man'-uman	ké	ó-sqan-c-baan
	if	know	3p-become-3ph/PAST	COMP	3p-kill-NONPAST-3ph/FUT

If they know, they will kill them.

Leél can also occur in an antipassive construction (see section 6.2).

⁶⁵ The auxiliary *b* to be is used for present and simple past tenses. The auxiliary *manáas* to become is used in cases where a non-present or non-past tense is required.

(xxv)	síruf	qhudáaya	r	leél	meíbila
	síruf	qhudáa-e	r	leél	man'-c-bila
	only	God-OBL	to	know	become-NONPAST-3sy/FUT

Only God will know.

The details of the tense distinctions involved with *b* and *manáas* are beyond the scope of this paper.

⁶⁶ It might be proposed that *awaáji* to need is an adjective in Burushaski meaning *necessary*. *Awaáji* does not act like Burushaski adjectives, however. It cannot modify nouns (*éhem kées* important case vs. **awaáji kées* necessary case) and cannot be inflected for number (*báarcuko gitáapiciN* red(s) books vs. **awaáji- gitáapiciN* [with no plural suffix allowed after *awaáji*]) as Burushaski adjectives generally can.

I suggest that the clauses in (95) and (96) be analyzed as inversion constructions. Informally, inversion is the name given to the construction in which a subject is demoted to indirect object (Harris 1984:279). In initially transitive clauses, the initial direct object advances to subject by unaccusative advancement. Inversion is a common feature of South Asian languages (Masica 1976:190) so it is not surprising to find it in Burushaski.

The inversion analysis of example (95b) is diagrammed in (97).

(97)	2	1	P	
	2	3	P	
	1	3	P	
	Tók gitáap	jáa r	záp	bilúm
	entire book	to me	memorize	it is

The cognizer (for (95b)) heads a 3 arc and is followed by the postposition r.⁶⁷ Tók gitáap *the entire book* is a final 1 and determines subject agreement. It is also a 2, yet does not determine object agreement. In this case we could say that the verb h *to be* is defective in never allowing an agreement prefix of any sort. There is another possible analysis for this lack of agreement however, and this will be discussed in the next section.

5.2.1. The interaction of inversion with 3-2 advancement

The sentence in example (98) is somewhat similar to the inversion constructions that have been discussed in this section thus far.

(98)	óltalik	dishmíN	ulo	ína	r
	ó-ltalik	dish-míN	ulo	ín-e	r
	3p-both	place,y-PL/ABS	in	3sh-OBL	to
	sawáabkuSh	déeGurshai.			
	sawáabkuSh	d-ée-Gurk-c-ai			
	reward,y/ABS	d-3sm-find-NONPAST-3sm/PRES			
	<i>In both places he will find reward.</i>				

The Experiencer is followed by the postposition r *to* and occurs before the Patient. The difference between example (98) and those in (95) and (96) above is that the d- prefix verb déeGurkas *to find* is used instead of the verb h *to be*. This verb also has an object agreement prefix that cross-references the Experiencer. If we posit inversion followed by 3-2 advancement and unaccusative advancement for déeGurkas, we can account for these facts. Sentence (98) is diagrammed below.

⁶⁷ When under emphasis, indirect objects may be followed by a simple coreferential stressed object agreement prefix which is in turn followed by the postposition r *to*. In some cases both forms are possible. In the sentences below both forms occur, although either form may be deleted.

(xxvi)	a.	tó	úna	r	góo	r	leél	bilá	ké
		tó	ún-e	r	gó-e	r	leél	b-ilá	ké
		so	2s-OBL	to	2s-OBL	to	know	be-3sy/PRES	COMP
		<i>So you know that...</i>							
	b.	khína		r	ée		r	barén	
		khín-e		r	é-e		r	barén	
		DEM3sh.prx-OBL	to	3sm-OBL	to	look/IMP			
		<i>Look at him!</i>							

(99)	Loc	1	2	P
	Loc	3	2	P
	Loc	2	Cho	P
	Loc	1	Cho	P
<hr/>				
	óltalik dishmíN ulo	ína r	sawáabkuSh	déeGurshai
	in both places	to him	reward	he will find

The pronoun *in* *he* is a final nuclear term. As a 1 it triggers subject agreement, and as a 2 it triggers object agreement. Since it heads a 3 arc, it is followed by the postposition *r*. *SawáabkuSh*, *reward* as a 2-chômeur is unmarked.⁶⁸

5.3. Antipassive

A construction that is frequently discussed in the literature on languages with ergative morphology is antipassive. It is commonly understood to be a structure that has been ‘detransitivized’. Postal (1977) made the claim based on French that antipassives are constructions in which an initial subject retreats to direct object, and then advances to subject again by unaccusative advancement in conformity to the final 1 law. The stratal chart for such a construction has the following form.

(100)	1	2	P
	2	Cho	P
	1	Cho	P
<hr/>			
	x	y	z

Evidence from Choctaw was provided by Davies (1984a) to support this analysis. Burushaski also has an antipassive construction. It is governed by a small set of verbs and is obligatory in most, but not all cases.

The dozen or so verbs that govern antipassive in Burushaski repeatedly occur in clauses that have both transitive and intransitive characteristics. They are similar to unaccusative verbs in that their subjects, which occur sentence-initially, occur in ABS case and determine both subject and object agreement. They are similar to transitive verbs however, in that they require an ABS marked ‘Patient’ nominal to be present in the preverbal position that is typical for direct objects. Some examples are presented in (101).

- (101) a. *jé káman peesá dácanabaa*
jé káman peesá d-á-can-abaa
 1s/ABS some money,x/ABS d-1s-need-1s/PRES
I need some money.
- b. *óltalik dishmíN ulo ín*
ó-ltalik dish-míN ulo ín
 3p-both place,y-PL/ABS in 3sh/ABS

⁶⁸ The verb *déeGurkas* *to find* occurs in the type of clause described here with the experiencer followed by the postposition *r* *to*. It also occurs with the experiencer in ABS case with no postposition; a construction that I analyze in the next section as antipassive.

sawáabkuSh déeGurshai
 sawáabkuSh d-ée-Gurk-c-ai
 reward,y/ABS d-3sm-find-NONPAST-3sm/PRES
*In both places he will find reward.*⁶⁹

c. jé ué tsum búT peesá ayáyam
 jé ué tsum búT peesá a-yá-am
 1s/ABS DEMhp from much money,x/ABS 1s-obtain-1s/PAST
I obtained much money from them.

d. jé qhabár dáyalam.
 jé qhabár d-á-yal-am
 1s/ABS news,y/ABS d-1s-hear-1s/PAST
I heard the news.

An antipassive analysis of the clauses in (101) accounts for all of the characteristics mentioned in the preceding paragraph. Example (101d) is diagrammed below.

(102)	1	2	P	
	2	Cho	P	
	1	Cho	P	
	jé	qhabár	dáyalam	
	I	news	I heard	

Jé I is a final nuclear term. As a 1 it triggers subject agreement. As a 2 it determines object agreement. It heads an ergative arc but also a 2 arc and so is not marked with ERG case. *Qhabár the news* is unmarked.

5.3.1. The interaction of 2-3 retreat and antipassive

The verb *déwaranas* to want occurs in clauses that are similar to antipassives.⁷⁰ Some examples of this verb are provided in (103).

- (103) a. jé úne zamíina r dáwaranabaa.
 jé ún-e zamíin-e r d-á-waran-abaa
 1s/ABS 2s-OBL land,xs-OBL to d-1s-want-1s/PRSPRF
I have wanted your land.
- b. jé Shapíka r dáwaranabaa.
 jé Shapík-e r d-á-waran-abaa
 1s/ABS food,y-OBL to d-1s-want-1s/PRSPRF
I have wanted food.

Clauses with *déwaranas* can only occur with their experiencers in ABS case and the 'object of desire' followed by the postposition *r to*. A simple antipassive analysis would be possible were it not for the presence of this postposition. This can be accounted for though, if we posit

⁶⁹ This example shows the antipassive option for the verb *déeGurkas* to find that was discussed in the previous section. *DéeGurkas* can alternatively occur in clauses with inversion followed by 3-2 advancement.

⁷⁰ *Déwaranas* means to want or need something enviously or covetously. *Décanas* and *awaáji* mean to need in general.

obligatory 2-3 retreat and antipassive for this verb. The diagram of (103a) would have the following form:⁷¹

(104)	1	2	P
	1	3	P
	2	3	P
	1	3	P
	jé	úne zamiina r	dáwaranabaa
	I	to your land	I have wanted

The pronoun *jé* *I* is the final subject and triggers subject agreement; it is a 2 and triggers object agreement. *Un* *you* heads a possessor arc and is marked with OBL case while *zamiin* *land* heads a 3 arc and is followed by the postposition *r* *to*.

6. Multi-predicate constructions

Thus far in this paper, I have referred to several elements which combine with uninflectible verbs, verbal nouns, predicate nominals and predicate adjectives to form predicates in Burushaski. These include the auxiliaries *étas* *to do* and *manáas* *to become* and the copula *b* *to be*. In this section I will discuss the forms of these auxiliaries and copula, some conditions on their usage, and their agreement properties.

The Relational Grammar account of these phenomena has traditionally been a clause union analysis where all of the dependents of an embedded clause become dependents of the matrix verb. A number of proposals and counterproposals have been advanced to characterize union constructions universally.

Recently, in Davies and Rosen (1988), it is argued that the constructions that have been analyzed as clause union are actually monoclausal multi-predicate clauses. Under this analysis, what was considered the embedded clause ‘occupies the early strata’ in the relational network and what was considered the union clause occupies the later strata. There are multiple ‘P-sectors’ in which different predicates bear the P relation. Predicates in lower (later) strata put predicates in higher (earlier) strata en chômage.

This multi-predicate analysis of clause union is the one that I adopt in this section on Burushaski auxiliaries, and in section 8 on causatives. I will discuss the syntax of the copula *b* *to be* first, followed by that of *manáas* *to become* and *étas* *to do*.

6.1. The copula *b* *to be*

The copula *b* *to be* occurs most often in predicate nominal and predicate adjective constructions. An example of each follows.

⁷¹ Or, the diagram could appear this way:

(xxvii)	1	2	P
	2	3	P
	1	3	P
	jé	úne zamiina r	dáwaranabaa
	I	to your land	I have wanted

(105) jé hír báa
 jé hír b-áa
 1s/ABS man/ABS be-1s/PRES
 I am a man.

(106) ín shwá báí
 ín shwá b-ái
 3sh/ABS good be-3sm/PRES
 He is good.

These constructions are typically stative in nature and therefore one would perhaps assume an unaccusative analysis for them. However, unlike unaccusative verbs, b never allows an agreement prefix. There are at least two ways to account for this fact. First, we could simply state that the auxiliary b is indeed unaccusative, but is morphologically defective in that it never allows an agreement prefix. While this analysis describes the facts regarding object agreement with b *to be*, it provides no explanation for them.

Alternatively, we could assume that clauses with b *to be* are multi-predicate constructions in which the copula is the predicate in a final P-sector in which there is no 2 to trigger object agreement. Under this multi-predicate analysis, the Burushaski copula is an unergative verb (unergative verbs never allow agreement prefixes unless causativized - see section 8). While this goes against the general tendency in Burushaski (and cross-linguistically) that unergative verbs imply volition or action, it is not ruled out by any constraints in Relational Grammar. (105) in this analysis is displayed in table form in (107).⁷²

(107)	2	P		(P-sector)
	1	P		

	1	Cho	P	(P-sector)
=====				
	jé	hír	báa	
	I	man	I am	

In (107) there are two P-sectors. The predicate of the initial P-sector is hír *man* which I propose is unaccusative. The initial stratum of the clause is the P-initial stratum for this predicate. Unaccusative advancement occurs in the initial P-sector and the second (unergative) stratum is the P-final stratum for hír. The third stratum is both the P-initial and P-final stratum for the predicate báa *I am*. Since this stratum is unergative, there is no agreement prefix on the copula.

The analysis of a predicate adjective construction is essentially the same. The diagram for (106) is presented in (108) below.

(108)	2	P		(P-sector)
	1	P		

	1	Cho	P	(P-sector)
=====				
	ín	shwá	báí	
	he	good	he is	

⁷² Dotted lines are used in the tabular diagrams to separate P-sectors.

In this case the predicate in the initial P-sector is the unaccusative predicate adjective *shwá* *good*. 2-1 advancement occurs in the initial P-sector. *Bái* *he is* is an unergative predicate in the final P-sector and therefore shows no object agreement.

The multi-predicate analysis for clauses with *b* also helps to clarify our understanding of inversion constructions with this auxiliary.⁷³ Consider the following example once again (from section 5).

- (109) Tók gitáap jáa r záp bilúm
 Tók gitáap já-e r záp b-ilúm
 entire book,y/ABS 1s-OBL to memorize be-3sy/PAST
I memorized the entire book.

The verb agreement and case marking rules proposed in (84) and (85) at the end of section 4 are adequate to account for all of the facts of example (109) except for the lack of object agreement on the auxiliary *b* *to be*. As a nominal that is a final 1 and also heads a 2 arc, *Tók gitáap* *entire book* should trigger this agreement, yet it does not. However, under the multi-predicate analysis this lack of agreement is predicted. The diagram for this clause is presented below.

(110)	2	1	P		(P-sector)
	2	3	P		
	1	3	P		

	1	3	Cho	P	(P-sector)
	Tók gitáap	jáa r	záp	bilúm	
	entire book	to me	memorize	it was	

Záp *memorize* shows no agreement because it does not bear the P relation in the final P-sector. The auxiliary *b* shows no object agreement because there is no 2 in the final P-sector. *Tók gitáap* *entire book* is a final 1 and therefore *b* shows appropriate subject agreement.⁷⁴

At least two grammatical relation changing constructions are seen to occur in the initial P-sector of a clause with the auxiliary *b*, inversion and unaccusative advancement. Both of these require 2-1 advancement, which occurs in the initial P-sector. In the multi-predicate analysis, the following statements need to be added to the verb agreement rules presented thus far:

- (111) a. Verb agreement is determined by the GRs that nominals bear in the final P-sector of a clause.
- b. Nouns, adjectives and uninflectible verbs cannot bear the P relation in the final P-sector.
- c. Select the auxiliary *b* if and only if:
- i. there is 2-1 advancement in the initial P-sector, and
 - ii. the clause is finally unergative.

⁷³ I will refer to the Burushaski copula as an auxiliary from now on.

⁷⁴ In section 5, footnote 56, an example was given of a sentence with inversion which used the uninflectible verb *leél* *to know* and the auxiliary *manáas* *to become* in the future tense with no object agreement prefix. I assume that the analysis for such a sentence is the same as that proposed in this section. Lack of object agreement on *manáas* in this case is because the *thing known* is an abstract entity which functions as a "y" class nominal; *manáas* never shows agreement with "y" class nominals.

6.2. The auxiliary *manáas* to become

The auxiliary *manáas* to become is frequently used with unaccusative and unergative verbs, as well as with predicate nominals and predicate adjectives. (112) is an example with an unaccusative verb, along with the appropriate diagram.

- (112) a. ín dádar imánimi
 ín dádar i-man'-imi
 3sh/ABS tremble 3sm-become-3sm/PAST
 He trembled.

b. 2 P

2	Cho	P
1	Cho	P

ín	dádar	imánimi
he	tremble	he became

(112) contains the uninflectible unaccusative verb *dádar* to tremble. Unlike a clause with the auxiliary *b* to be, this clause has the unaccusative advancement construction in the final P-sector; *manáas* to become shows object agreement with the P-initial 2 of this P-sector, *ín* he. Some similar examples with a predicate adjective and a predicate nominal follow.

- (113) a. ín sardáar imánimi
 ín sardáar i-man'-imi
 3sh/ABS president,h 3sm-become-3sm/PAST
 He became president.

b. 2 P

2	Cho	P
1	Cho	P

ín	sardáar	imánimi
he	president	he became

- (114) a. ín shwá imánimi
 ín shwá i-man'-imi
 3sh/ABS good 3sm-become-3sm/PAST
 He became good.

b. 2 P

2	Cho	P
1	Cho	P

ín	shwá	imánimi
he	good	he became

Example (113) contains the predicate nominal *sardáar* president. Example (114) contains the predicate adjective *shwá* good. If these are analyzed as unaccusative predicates in these clauses, and unaccusative advancement in clauses with the auxiliary *manáas* to become must occur in the final P-sector, then the object agreement on this auxiliary is accounted for.

Finally I will present one more example of a clause with the auxiliary manáas.

- (115) a. ín él um cás maními
 ín éle um cás man'-imi
 3sh there from walk.out become-3sm/PAST
He walked out from there (in disagreement).

b. 1 Source P

 1 Source Cho P

 ín él um cás maními
 he from there walk.out he became

(115) contains the uninflectible unergative verb chás *to walk out*. In this example there is no 2 in either P-sector and no object agreement. This is just what is predicted according to the verb agreement rules that have been presented thus far in this paper.

In order to guarantee that 2-1 advancement occurs in the final P-sector, the following statement must be added to the rules in (111).

- (116) Select the auxiliary manáas if and only if:
 i. any GR changing constructions, if they occur, occur in the final P-sector, and
 ii. the clause is finally unergative.

We see the crucial difference between constructions with the auxiliaries manáas *to become* and b *to be*. In a clause with manáas, 2-1 advancement occurs optionally in the final P-sector; in a clause with b, 2-1 advancement occurs obligatorily in the initial P-sector. This assumes that the syntax of a multi-predicate clause with a noun, adjective or uninflectible verb for a predicate, along with an auxiliary, is partially determined by the auxiliary and partially by the initial P-sector predicate.

Manáas can also occur in an antipassive construction with the uninflectible verb leél *to know* as the following example shows.⁷⁵

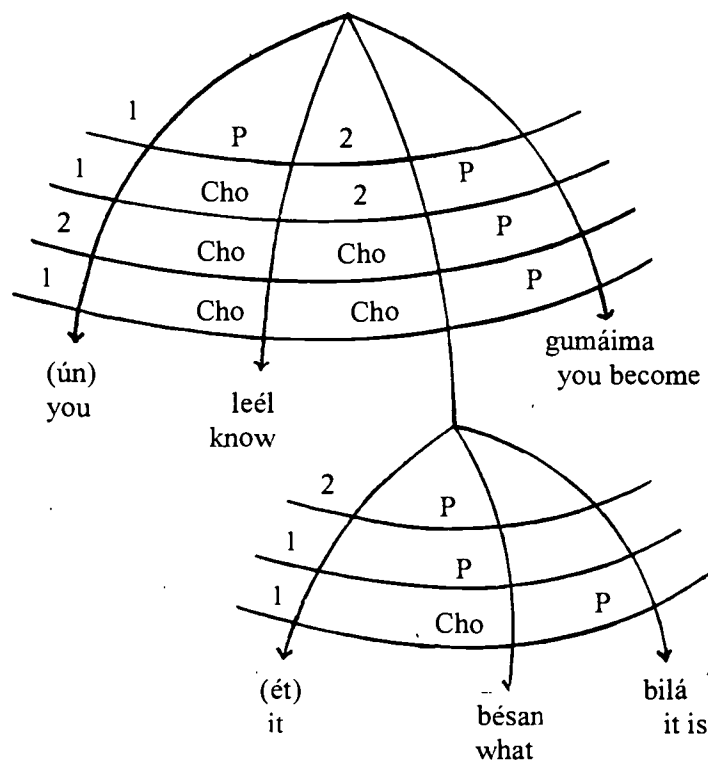
- (117) bésan bilá ké leél gumáima
 bésan b-ilá ké leél gu-man'-c-uma
 what be-3sy/PRES COMP know 2s-become-NONPAST-2s/FUT
You will know what it is.

Example (117) is shown below in stratal diagram form.⁷⁶

⁷⁵ Burushaski has an optional rule of unemphatic pronoun drop, under which subject and direct object pronouns need not appear overtly when their referents are clear from the context. The conditions on this rule and its details are not discussed in this paper. The pronouns ún *you* and ét *it* do not appear overtly due to this rule.

⁷⁶ In order to more clearly illustrate the relationships within and between the two clauses in this sentence I use a relational network diagram. This same sort of diagram will be useful in the next section on possessor ascension constructions.

(118)



This example shows the contrast between manáas (*gumáima*) and b (*bilá*). The antipassive construction occurs in the final P-sector of the main clause with manáas. Unaccusative advancement occurs in the initial P-sector of the subordinate clause with b.

6.2.1. Passives with manáas

We have seen in section 4 that in a passive construction with an uninflectible verb the auxiliary manáas *to become* is used.⁷⁷ Example (47b) from that section is repeated here.

- (119) shishámuts (ínmo tsum) táq umánie
 shishá-muts ín-mo tsum táq u-man'-ie
 window,x-PL/ABS 3h-OBLf by smash 3p-become-3px/PAST
The windows were smashed (by her).

At this time we can consider the syntax of this passive auxiliary. Under the multi-predicate analysis, the diagram for (119) has this form:

⁷⁷ As I mentioned in section 4, I do not know if only manáas *to become* can occur with passives, or if to be can alternatively be used for certain tense or aspect distinctions.

(120)	2	1	P	
	2	1	Cho	P
	1	Cho	Cho	P
	shishámuts	ínmo tsum	táq	umánie
	windows	by her	smash	they became

In (120) *shishámuts windows* advances to 1 in a passive construction in the final P-sector. Since it is a final 1 and also heads a 2 arc, this nominal triggers both subject and object agreement on the auxiliary *manáas*.

6.3. The auxiliary *étas* to do

In section 4.2.1 an example was given with the uninflectible transitive verb *táq* to *smash*. This example is repeated as (121) below.

(121)	a.	ine	shishámuts	táq	ótumo
		in-e	shishá-muts	táq	o-t-umo
		3s-ERG	window,x-PL/ABS	smash	3p-do-3sf/PAST
		<i>She smashed the windows.</i>			

Except when passivized, clauses with *táq* always require the auxiliary *étas* to *do*. A multi-predicate analysis for these clauses is similar to that presented above for the other Burushaski auxiliaries. Under this analysis, example (121) is presented below.

(122)	1	2	P	
	1	2	Cho	P
	ine	shishámuts	táq	ótumo
	She	windows	smash	she did them

Táq to *smash* cannot bear the P relation in the final P-sector and therefore cannot be inflected for subject or object agreement. The auxiliary verb *étas* to *do* does bear the P relation in the final P-sector and therefore shows object agreement and subject agreement as predicted. There are no clause types in Burushaski which employ the auxiliary *étas* in which GR changing constructions take place in either the initial or the final P-sector.

I will summarize what has been said in this section on Burushaski auxiliaries below.

- (123) a. Verb agreement is determined by the GRs that nominals bear in the final P-sector of a clause.
- b. Nouns, adjectives and uninflectible verbs cannot bear the P relation in the final P-sector.
- c. Select the auxiliary *b* if and only if:
- i. there is 2-1 advancement in the initial P-sector, and
 - ii. the clause is finally unergative.
- d. Select the auxiliary *manáas* if and only if:
- i. any GR changing constructions, if they occur, occur in the final P-sector, and
 - ii. the clause is finally unergative.

- e. Select the auxiliary *étas* if and only if:
- there are no GR changing constructions in any P-sector, and
 - the clause is finally transitive.

7. Possessor ascension

When a certain class of transitive verbs in Burushaski have direct objects which are possessed, the possessor nominal determines object agreement as if it were a clausal constituent. This is illustrated below with the verb *éskartsas* *to cut*. Examples (124a,b) show straightforward singular and plural object agreement in the verb with the "x" class direct object *hún* *log*.

- (124) a. *úe* *hún* *éskartsuman*
 ú-e *hún* *é-skarts-uman*
 3p-ERG log,x/ABS 3sx-cut-3ph/PAST⁷⁸
 They cut the log.
- b. *úe* *hunánts* *óskartsuman*
 ú-e *hun-ants* *ó-skarts-uman*
 3p-ERG log,x-PL/ABS 3px-cut-3ph/PAST
 They cut the logs.

In (125) below, the direct object is the "x" class possessed nominal *mómiSh* *her finger*. Object agreement is not with this noun, but rather with the possessor of the direct object, *gús* *woman*.

- (125) *úe* *gúsmo* *mómiSh* *móoskartsuman*
 ú-e *gús-mo* *mó-miSh* *mó-<L>-skarts-uman*
 3p-ERG woman-OBLf 3sf-finger,x/ABS 3sf-PA-cut-3ph/PAST
 They cut the woman's finger.

Example (126) shows an ungrammatical attempt to have the verb agree with *mómiSh* *her finger*.

- (126) **úe* *gúsmo* *mómiSh* *éskartsuman.*
 ú-e *gús-mo* *mó-miSh* *é-skarts-uman*
 3p-ERG woman-OBLf 3sf-finger,x/ABS 3sx-cut-3ph/PAST
 (They cut the woman's finger.)

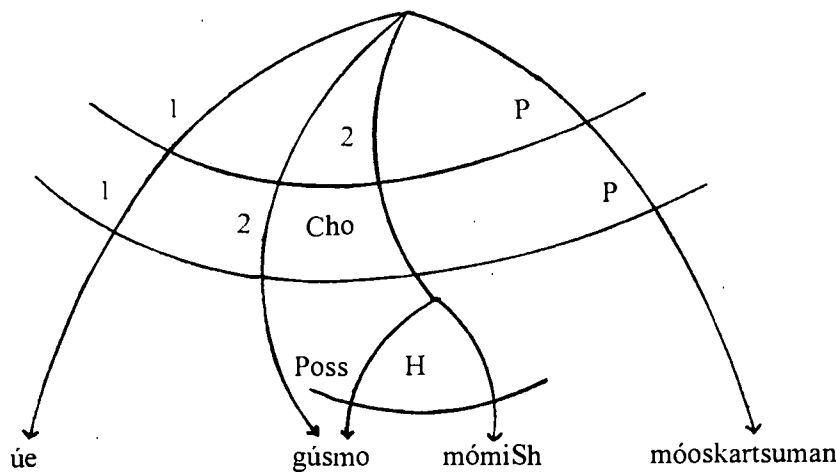
In Relational Grammar this phenomenon can be analyzed as a case of possessor ascension, in which the possessor in a nominal bears both the POSS relation to the possessed nominal, and a grammatical relation to the clause.⁷⁹ Possessor ascension has been argued for in the Relational Grammar literature for a number of languages. These include Cebuano (Bell 1983:191ff),

⁷⁸ The morphology of *éskartsuman* is actually more complex than this, but it doesn't pertain to the subject of possessor agreement.

⁷⁹ Possessor ascension is one type of a general category of syntactic constructions called ascensions in Relational Grammar. Another common type of ascension is 'raising' in which a nominal bearing a grammatical relation in a dependent clause also bears a grammatical relation in the main clause. Two laws of RG come into play in ascensions, the Relational Succession Law and the Host Limitation Law (Perlmutter & Postal 1983b:53). The former requires that the ascended nominal assume the grammatical relation of the 'host' out of which it ascends. The latter requires that nominals can only ascend out of hosts bearing term grammatical relations. The host clause (or NP in the case of possessor ascension) is put en *chômage* as a result. Burushaski has no ascension constructions out of clauses as far as I know.

Choctaw (Davies 1984a:343-46, 1986:60), Kera (Camburn 1984) and Malagasy (Perlmutter and Postal 1983b:43-45) among others. The diagram for such an analysis of (125) above follows:

(127)



Gús woman is the possessor of the initial direct object mómiSh her finger, and in the second stratum ascends to assume the 2 relation, putting the initial possessed phrase en chômage. Since gús woman is a final nuclear term and heads a 2 arc, it triggers object agreement. MómiSh her finger is a 2-chômeur and does not trigger agreement.⁸⁰

Note the long vowel form of the agreement prefix in (128b). When showing agreement with a possessor, the vowel in the object agreement prefix must be long.

(128) a. gúse hilésho curúk ótumo
 gús-e hilés-isho curúk ó-t-umo
 woman-ERG boy-PL/ABS cut 3p-do-3sf/PAST
 The woman cut the boys.

b. gúse hiléshoe ómians curúk óotumo
 gús-e hilés-isho-e ó-miSh-ants curúk ó-<L>-t-umo
 woman-ERG boy-PL-OBL 3p-finger,x-PL/ABS cut 3p-PA-do-3sf/PAST
 The woman cut the boys' fingers.

Possessor ascension in a clause is signalled by an agreement prefix with a long vowel.⁸¹ As (129) shows, in sentences with a non-overt initial direct object, vowel length in the agreement prefix is the superficial distinction between sentences with and without possessor ascension.

⁸⁰ The final chômeur is the NP gúsmo mómiSh. For the sake of convenience I will refer to the NP by making reference to its head.

⁸¹ Presence of a prefix with a long vowel does not necessarily signal possessor ascension however. It could signal a causative construction (see next section). Or it might simply be that the agreement prefix vowel in a particular verb requires the long form. One example of this type of verb is the antipassive verb déeGurkas *to find* (see section 5.3). Another is the verb éeGanas *to perceive* (also antipassive) as in the following example:

- (129) a. jáa Cam góotam
 jé-e Cam gó-<L>-t-am
 1s-ERG poke 2s-PA-do-1s/PAST
 I poked your (something).
- b. jáa Cam gótam
 jé-e Cam gó-t-am
 1s-ERG poke 2s-do-1s/PAST
 I poked you.

I suggest that the following rule needs to be incorporated into the grammar of Burushaski.

- (130) In a possessor ascension construction, the object agreement prefix is lengthened.

One potential problem for the possessor ascension analysis is that in example (125) above and in the other examples of possessor ascension presented here, the possessor is still marked with OBL case. It cannot occur in ABS case. If the possessor is ascending to bear the 2 relation in the main clause, one might assume that it should be unmarked, since there is no rule that marks 2s with case. At least two alternative explanations are possible.

First, there may be no possessor ascension construction at all. Davies (1984b:399) argues against a possessor ascension analysis for similar clauses in Choctaw. In Choctaw, 2s determine verb agreement and same subject marking given the proper environment. Possessors of inalienably possessed body parts determine verb agreement, but not same subject marking. For this reason Davies rejects the possessor ascension analysis in favor of a rule which "asserts that a referential coding rule may optionally reference a possessor."

Since the only evidence for possessor ascension in Burushaski is verb agreement (and not ABS case marking), under a non-ascension analysis the object agreement rule could be revised as follows:

- (131) A nominal heading a 2 arc, or the possessor of a nominal heading a 2 arc in a clause with a possessor agreement verb, determines object agreement.

Alternatively, a possessor ascension analysis could be maintained for these clauses if possessor nominals are considered to be case marked in a manner similar to 3s and Sources in Burushaski. Recall that case marking rule (85c) in section 4 states that nominals heading POSS arcs are marked with OBL case, in any level of the clause or phrase in which they occur (embedded or main). Thus OBL case marking for a possessor is the natural result of the rules presented above, whether it ascends to head a 2 arc or not. Nominals occur in ABS case only by default when no case marking rules are applicable. The same sort of phenomenon occurs with 3s and Sources. Nominals bearing those GRs are followed by the postpositions *r to* and *tsum from* respectively, no matter at what level in the clause they bear these relations.⁸²

-
- (xxviii) hamíid qhósh étas mushkíl bilá áaGayabaa
 hamíid qhósh é-t-as mushkíl b-ilá áa-Gan'-c-abaa
 Hamid/ABS happy 3sy-do-INF difficult be-3sy/PRES 1s-perceive-NONPAST-1s/PRES
 I perceive (think that) to please Hamid is difficult.

In neither of the examples referred to here would it be justified to posit a possessor ascension or causative construction to account for the long vowel in the agreement prefixes. (Note also that the long vowel form is not typical of antipassive constructions.)

⁸² The exception to this is Sources in clauses with *duGárusas to ask*.

If the ascended nominal could passivize, undergo unaccusative advancement or 2-3 retreat, this would provide further evidence that would lend support to the possessor ascension analysis. Possessors may not participate in any of these constructions however. Lengthening of the vowel in the agreement prefix is not a strong argument for possessor ascension, since this could also be claimed as a result in a non-ascension analysis. However, since vowel lengthening is also present in a causative construction and an impersonal construction (see the following sections) a unified account of this phenomenon is possible with an ascension analysis. This will be discussed further in section 9.

7.1. Conditions on possessor ascension

Possessor ascension in Burushaki is a governed construction and is obligatory in clauses with verbs that govern it, no matter what kind of nominal is possessed. The examples in (125) and (128b) above show possessors of inalienably possessed body part nominals.⁸³ Possessors of other kinds of nominals also ascend.

- (132) jáa úne pén GaJám góotam
 jé-e ún-e pén GaJám gó-<L>-t-am
 1s-ERG 2s-OBL pen,x/ABS snatch 2s-PA-do-1s/PAST
I snatched your pen.

Possessor ascension is limited to hosts that are 2s.⁸⁴ In (133) the possessor of an unaccusative subject ascends.

- (133) jáa awáT dáaGaYila
 jé-e awáT d-á-<L>-GaY-ila
 1s-OBL skin,y/ABS d-1s-PA-itch-3sy/PRES
My skin itches.

Possessors of ergatives do not ascend.

- (134) a. gúsmo muíe jáa ámiSh
 gús-mo mu-í-e jé-e á-miSh
 woman-OBLf 3sf-son-ERG 1s-OBL 1s-finger,x/ABS
 áaskartsimi
 á-<L>-skarts-imi
 1s-PA-cut-3sm/PAST
The woman's son cut my finger.

⁸³ The direct object in (125) is an inalienably possessed body part while those in (124a,b) are simple "x" nouns. The reason for this is not that the "x" noun *hún* *log* cannot host possessor ascension, but rather that I did not check possessor agreement for this noun. To check this it would be necessary to check a sentence like *He cut my logs*.

Not every verb authorizes possessor ascension. The following sentence is not acceptable.

- (xxix) *jáa gúsmo mómiants móoyetsam
 jé-e gús-mo mó-miSh-ants mó-<L>-yeéts-am
 1s-ERG woman-OBLf 3sf-finger,x-PL/ABS 3sf-PA-see-1s/PAST
 **I saw the woman's fingers.*

⁸⁴ Possessors of 2s which are advancees from 3 do not ascend in examples I have found. However, 3-2 advancement verbs may belong to the class of verbs that do not sanction possessor ascension at all. I lack the necessary data to explore this at this time.

- b. *gúsmo muíe jáa ámiSh áakartsumo
 áa-<L>-skarts-umo
 1s-PA-cut-3sf/PAST

Possessor ascension only occurs when the subject and the possessor of the direct object are non-coreferential.⁸⁵ In (135a), agreement in the verbal prefix is with émians *his fingers*; there is no possessor ascension. As (135b) shows, possessor ascension can never have coreferential reading.

- (135) a. qasaaíe émians curúk ótimi
 qasaaí-e é-miSh-ants curúk ó-t-imi
 butcher-ERG 3sm-finger,x-PL cut 3px-do-3sm/PAST
The butcher (i) cut his (i) fingers.

- b. qasaaíe émians curúk éetimi
 é-<L>-t-imi
 3sm-PA-do-3sm/PAST
The butcher (i) cut his (j) fingers.
 **The butcher (i) cut his (i) fingers.*

I summarize the conditions on possessor ascension in Burushaski in (136).⁸⁶

- (136) Conditions on possessor ascension

- a. The subject and the possessor may not be co-referential.

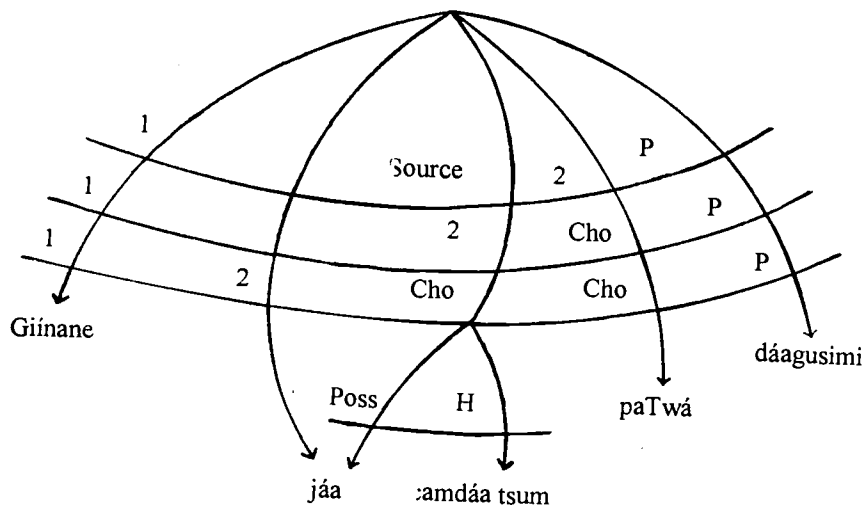
⁸⁵ There is a similar constraint in Sierra Popoluca (Marlett 1988:377).

⁸⁶ There is one verb which I have found where the agreement prefix cross references the possessor of a Source nominal. This is the verb déegusas *to remove*. An example is presented below.

- (xxx) Giinane (jáa) camdá tsum paTwá dáagusimi
 Giin-an-e jé-e camdá tsum paTwá d-áa-gus-imi
 thief-INDEF-ERG 1s-OBL pocket/ABS from purse/ABS d-1s-remove-3sm/PAST
A thief stole a purse from (my) pocket.

Even if there is no overt possessive pronoun, the object agreement is still with the possessor. If no possessor is implied, the verb díusas *to extract* will be used. Assuming a Source-2 advancement analysis we could diagram example (xxx) in this way.

(xxxi)



- b. The host must be a 2.
- c. Possessor ascension is governed by a class of verbs, and is required by them when the other conditions are met.

8. Causatives

Burushaski is somewhat unusual for a South Asian language in that it uses prefixes to form causatives instead of suffixes (Masica 1976:106). Actually there are three causative prefixes used in Burushaski, one used with unaccusative verbs, one with unergative verbs and one with transitive verbs. I will discuss each of these in turn. In doing so, I will assume a monoclausal, multi-predicate analysis of Burushaski causatives similar to that used with Burushaski auxiliaries in section 6.

8.1. Causatives of unaccusatives

Only unaccusative verb roots occur with the causative prefix s-; unergative and transitive verbs do not.⁸⁷ In (137) below are listed some unaccusative verbs and their causative forms.

(137)	<u>Unaccusative</u>	<u>Causative</u>	<u>Gloss of root</u>
a.	baláas	éspalas	<i>burn</i>
b.	duGánDeras	désqanDaras	<i>be crooked</i>
c.	dikaTas	déskaTas	<i>stop</i>
d.	dítalas	déstalas	<i>wake up</i>
e.	diwaras	désparas	<i>revive</i>
f.	diyáYas	déstaYas	<i>be propped up</i>
g.	Gasáas	ésqasas	<i>spoil</i>
h.	iGúlas	ésqulas	<i>burn</i>
i.	Gurtsáas	ésqurtsas	<i>be immersed</i>
j.	ikháranas	éskaranas	<i>be late</i>
k.	tháyas	éstayas	<i>be extinguished</i>
l.	iwáalas	éspalas	<i>be lost</i>

Not every unaccusative verb can occur with s-. For example, there is no s- (nor any other) causative form for émalas *feel shame*.

Sentence examples with Guláas *to burn* are presented below.

(138)	a.	Gashíl	Gulúmi	
		Gashíl	Gul'-imi	
		wood,y/ABS	burn-3sy/PAST	
			<i>The wood burned.</i>	
	b.	jáa	Gashíl	ésqulam
		jé-e	Gashíl	é-s-Gul'-am
		1s-ERG	wood,y/ABS	3sy-CAUS-burn-1s/PAST
				<i>I made the wood burn.</i>

In (138a) there is no "y" class object agreement shown on the verb. This is typical of a certain class of verbs that was mentioned in section 2. In (138b) the agreement prefix is present;

⁸⁷ There is at least one exception to this rule; the verb daGáyas *to hide*, which is unergative, has a causative form of éstaqayas *to make him hide*. Éstaqayas not only has the s- causative prefix, but also the lengthened vowel which is found in causative forms of transitive verbs (see section 8.3). There is no intermediary transitive form however, i.e. *éstaqayas.

the derived causative form is a member of the class of verbs which require an agreement prefix no matter what the class of the object.

A monoclausal multi-predicate analysis for (138b) is given below:

(139)	2		P	

	1	2	P	Cho
	jáa I	Gashíl wood	s (cause)	Gul'- (burn)

Gashíl wood heads a 2 arc in both the initial and final P-sector and determines object agreement. Jé I heads a final 1 arc in the final P-sector and determines subject agreement. Another example is presented below. (140) contains the unaccusative verb díwaras to revive.

(140)	ín	díwarai	
	ín	d-i-war-ai	
	3sh/ABS	d-3sm-revive-3sm/PRSPRF	
	<i>He has revived.</i>		

Example (141a) is the causative form of this sentence with the appropriate tabular diagram following.

(141)	a.	jáa	ín	désparabayam	
		jé-e	ín	d-e-s-war-abayam	
		1s-ERG	3sh/ABS	d-3sm-CAUS-revive-1s/PRSPRF	
		<i>I have caused him to revive. (I have revived him.)</i>			
	b.		2	P	

		1	2	P	Cho
		jáa I	ín he	s (cause)	war- (revive)

No causative (including causatives of unaccusatives) interacts with any other GR changing constructions, i.e. inversion or antipassive.

8.2. Causatives of unergatives

For unergative verbs, causative and non-causative forms are identical. I have indicated this in the examples below with a null prefix \emptyset -CAUS in the causative forms. Two unergative verbs and their causative counterparts are presented in (142) and (143).

(142)	a.	gús	mán	aTe hurúTumo.	
		gús	mán	aTe hurúT-umo	
		woman/ABS	platform,x/ABS	on sit-3sf/PAST	
		<i>The woman sat on the platform.</i>			
	b.	jáa	gús	mán	aTe móuruTam
		jé-e	gús	mán	aTe mó- \emptyset -hurúT-am
		1s-ERG	woman/ABS	platform,x on	3sf-CAUS-sit-1s/PAST
		<i>I made the woman sit on the platform.</i>			

- (143) a. biTán tamasháan ulo giráshai
 biTán tamashá-an ulo girát-c-ai
 shaman/ABS celebration,y-INDEF/ABS in dance-NONPAST-3sm/PRES
The shaman dances in a celebration.
- b. úe biTán tamasháan ulo
 ú-e biTán tamashá-an ulo
 3p-ERG shaman/ABS celebration,y-INDEF/ABS in
 egirashaan
 é-Ø-girat-c-aan
 3sm-CAUS-dance-NONPAST-3ph/PRES
They make the shaman dance in a celebration.

(142a) and (143a) are simple unergative constructions. In (142b), *jé* I is subject. In (143b), the subject is *ú* they. In both cases the subject of the ‘inner’ clause is the direct object of the main clause. (142b) is diagrammed below.

(144)	1	Loc	P		

	1	2	Loc	Cho	P
	jáa	gús	mán aTe	hurúT	Ø-
	I	woman	on platform	(sit)	(cause)

The 1 in the initial P-sector is a 2 in the final P-sector and triggers object agreement.

8.3. Causatives of transitives

The causative predicate for a transitive verb is realized as lengthening of the object agreement prefix vowel.⁸⁸ Consider the sentences in (145).

- (145) a. úe húnan dítsuman
 ú-e hún-an d-í-ts-uman
 3ph-ERG beam,x-INDEF/ABS d-3sx-bring-3ph/PAST
They brought a beam.
- b. jáa ú húnan dóotsam
 jáe-e ú hún-an d-ó-<L>-ts-am
 1s-ERG 3ph/ABS beam,x-INDEF/ABS d-3ph-CAUS-bring-1s/PAST
I made them bring a beam.

Example (145a) is straightforwardly analyzed as a monostratal transitive clause. In the causative construction in (145b) however, *jé* I is subject. The subject of the ‘inner’ clause is the direct object of the main clause and thus determines object agreement on the verb.

According to the multi-predicate analysis, (145b) is diagrammed as follows:

⁸⁸ Many unaccusative verbs which can be causativized with the *s-* prefix produce derived transitive constructions which can in turn be causativized by the long vowel agreement prefix; for example, *iGúlas* burn, *ésqulas* make burn, *éesqulas* make him burn (it).

(146)		1	2	P	

	1	2	Cho	Cho	P
	jáa	ú	húnan	ts-	<L>
	I	them	beam	(bring	(cause)

Transitive verbs which have no agreement prefix because their direct objects are always "y" class nominals are causativized by the addition of an agreement prefix which cross-references the final 2 and which has a long vowel. For example, the causative of *daldínas to sift* is *éedaldínas to cause him to sift*.

- (147) a. *íne* *sáu* *daldínimi*
ín-e *sáu* *daldín-imi*
 3sh-ERG sand,yp/ABS sift-3sm/PAST
He sifted the sand.
- b. *jáa* *ín* *sáu* *éedaldinam*
jé-e *ín* *sáu* *é-<L>-daldín-am*
 1s-ERG 3sh/ABS sand,yp/ABS 3sm-CAUS-sift-1s/PAST
I made him sift the sand.

8.4. Causatives of the auxiliary *étas*

Clauses with an uninflectible verb and the auxiliary *étas to do* also can occur in causative constructions. Consider the sentences in (148):

- (148) a. *gúse* *méezisho* *safáa* *ótumo*
gús-e *méez-isho* *safáa* *ó-t-umo*
 woman-ERG table,x-PL/ABS clean 3px-do-3sf/PAST
The woman cleaned the tables.
- b. *jáa* *gús* *méezisho* *safáa* *móotam*
jé-e *gús* *méez-isho* *safáa* *mó-<L>-t-am*
 1s-ERG woman/ABS table,x-PL/ABS clean 3sf-CAUS-do-1s/PAST
I made the woman clean the tables.

Example (148a) is a multi-predicate clause with the uninflectible verb *safáa to clean*. Example (148b) is a causative construction. The diagram for example (148b) follows:

(149)		1	2	P	

	1	2	Cho	P	
	1	2	Cho	Cho	P
	jáa	gús	méezisho	safáa	t- <L>
	I	woman	tables	clean	(do) (cause)

Jé I is the final 1 in the final P-sector, is marked with ERG case and triggers subject agreement. *Gús woman* is the final 2 in the final P-sector, is marked with ABS case and triggers object agreement. The uninflectible verb *safáa to clean* does not head a P arc in the final P-sector and shows no object agreement. The auxiliary verb *étas to do* has a long vowel in the agreement prefix which signals causative.

As with s- causatives of unaccusatives, causatives of unergatives and transitives do not interact with any other GR changing constructions; in other words, clauses with a causative disallow any GR changing constructions in any P-sector.

I summarize the conditions on Burushaski causatives below:

- (150) a. Causatives disallow any GR changing constructions in any P-sector.
 b. The P-final 1 in the last non-causative P-sector is a P-final 2 in the causative P-sector.
 c. Select s- if the clause is initially unaccusative.
 d. Select \emptyset - if the clause is initially unergative.
 e. Select <L> if the clause is initially transitive.
 f. Uninflectible verbs may not be causativized.

8.5. Some atypical causatives

Causative verb forms may not always have ‘non-causative’ counterparts. There is a group of verbs that can only occur in syntactically causative constructions yet have no independently occurring non-causative forms. Some of these verbs are éeltiras *to show*, éesiras *to feed* and éeras *to send*. They are not related to any non-causative Burushaski verbs for seeing, eating or going/traveling. Examples are presented in (151) below with some tentative glosses.

- (151) a. hilése dasín taswíir móoltirimi
 hilés-e dasín taswíir mó-<L>-ltir-imi
 boy-ERG girl/ABS picture,y/ABS 3sf-CAUS-view?-3sm/PAST
The boy showed the girl the picture.
- b. ímie muí phíTi éesirumo
 í-mi-e mu-í phíTi é-<L>-sir-umo
 3sm-mother-ERG 3sf-son/ABS bread,x/ABS 3sm-CAUS-ingest?-3sf/PAST
The (lit. ‘his’) mother fed her son bread.
- c. jáa ún gíilta r góoram
 jé-e ún gíilt-e r gó-<L>-r-am
 1s-ERG 2s/ABS Gilgit-OBL to 2s-CAUS-go?-1s/PAST
I sent you to Gilgit.

(151a) is presented below in diagram form.

	1	2	P		
	1	2	Cho	Cho	P
	hilése	dasín	taswíir	ltir-	<L>
	boy	girl	picture	(view?)	(cause)

If this sentence is analyzed as a causative construction, the ABS case marking on dasín *girl* and taswíir *picture* is accounted for. Dasín is a final 2 and taswíir is a 2 *chômeur* in the final P-sector, both of which are unmarked according to the case marking rules being proposed in this paper. As a nominal heading a final 2 arc, dasín triggers object agreement. The long vowel signals a causative. Hilés *boy* is a final ergative and triggers subject agreement.

The alternative to a causative analysis for the sentences in (151a-c) is to posit verbs which are somewhat unusual morphologically (with respect to the long vowels). But other facts are less easily accounted for. For example, if we claim that *dasín girl* in (151a) is an initial 3 that advances to 2, we fail to account for the lack of the postposition *r* following it.⁸⁹

9. Impersonal constructions

There is a set of uninflectible verbs that are used for some bodily processes in Burushaski. They are always used with the auxiliary *éetas* *to do* (with a long vowel in the agreement prefix). A sample set of these verbs is given in (153).

- (153) 'Bodily process' verbs
- thíShâu* *to sneeze*
 - muruúq* *to have pain in the stomach*
 - qhiír* *to breathe noisily (due to a lung disease)*
 - Cár* *to have diarrhea*
 - qár* *to itch*
 - óq* *to vomit*
 - Cám* *to have pain in the side and chest*

Example (154) is a sentence example with the first of these verbs.

- (154) *ín* *thíShâu* *móocila.*
ín *thíShâu* *mó-<L>-t-c-ila*
 3sh/ABS sneeze 3sf-D-do-NONPAST-3sy/PRES
She is sneezing.

The nominal representing the person sneezing occurs in ABS case and triggers object agreement on the auxiliary *éetas* *to do*. The object agreement prefix vowel is long. The subject agreement suffix is showing agreement with a "y" class singular nominal. *ThíShâu* *to sneeze* is not this nominal since it is not marked with ERG case.

I suggest that these verbs occur in impersonal constructions, with a (silent) dummy subject that is grammatically a "y" class singular pronoun.

Within Relational Grammar, the notion of 'dummy nominal' has been important in the account of many diverse grammatical phenomena. The examples below are from Perlmutter and Postal 1983c:101, which provides a clear description of the place of dummy nominals in RG.

- (155) a. *It* is clear that he is guilty. (English)
 b. *Il* est évident qu'il est coupable. (French)
It is obvious that he is guilty.
 c. *Es* is nicht sicher, dass er schuldig ist. (German)
It is not certain that he is guilty.

⁸⁹ In certain limited circumstances the Viewer must be marked with *-r*. For example:

- (xxxii) *jáa* *r* *hán* *gánan* *áaltir!*
je-e *r* *han* *gan-an* *a-<L>-ltir-0*
 1s-OBL to one,xy road,y-INDEF 1s-CAUS-view?-IMP
Show me a (new) way (to go).

- d. Yr oedd hi yn bwrw glaw ddoe. (Welsh)
was she throw rain yesterday
It was raining yesterday.
- e. Het is niet zeker, dat hij te laat kwam. (Dutch)
It is not certain that he too late came
It is not certain that he came late.

In an impersonal analysis, the diagram for (154) would be:

(156)	2	P		

	2	Cho	P	
1	2	Cho	P	
	Dummy	in	ThíShâu	t-
		she	sneeze	(do)

The pronoun in she is a final 2 and triggers object agreement in the auxiliary étas to do. As a "y" class pronominal 1, the dummy triggers subject agreement. In this case, the vowel lengthening indicates presence of this silent dummy.⁹⁰

9.1. Agreement prefix vowel lengthening revisited.

We have seen that the lengthened form of the object agreement prefix occurs in three cases: possessor ascension, causatives of transitives, and clauses with dummies. A rule for object agreement prefix vowel lengthening could be proposed as follows:

- (157) Lengthen the vowel of the object agreement prefix if the clause contains a constituent which heads a final arc in the clause but not an initial arc.

Perhaps the presence of -r is triggered by the imperative form of this sentence. In these cases I would propose a 2-3 retreat analysis as diagrammed in (xxxiii) below:

(xxxiii)	1	2	P		

	1	2	Cho	Cho	P
	1	3	Cho	Cho	P
	Unspecified	jáar	hán gánan	ltir-	<L>
		to me	a road	(view?)	(cause)

⁹⁰ This analysis violates the active dummy law however, which states informally that a dummy must put some nominal en chômage in the stratum in which it first bears a GR in a clause (Perlmutter 1983b).

Alternatively, one might argue for a Dummy + Causative analysis of (154). In this case the diagram for this example would have the following form:

(xxxiv)	2	P			

	2	Cho	P		
1	2	Cho	Cho	P	
	Dummy	in	ThíShâu	t-	<L>
		she	sneeze	(do)	CAUS

Lit. It causes her to do a sneeze.

This rule must be applied disjunctively, after rules (150c,d) in section 8 which mark causatives of intransitives and unergatives. Lengthening then is the default way to mark the presence of 'latecomers' in a clause.⁹¹ The possibility of giving a unified treatment to vowel lengthening provides further evidence in favor of each of the analyses presented earlier.⁹²

9.2. Disjunctively ordered rules

In Davies 1983 evidence is provided for the disjunctive application of morphosyntactic rules. We have already seen in the last section how the idea of disjunction is useful in stating the rules for forming Burushaski causatives. Disjunctive ordering could also be applied to the set of case marking rules presented in this paper. In that case the rules would have the following form:

(158) Case marking rules (an alternative version)

- a. A nominal which heads a POSS arc is marked with OBL case.
- b. A nominal which heads a 3 arc is flagged with the postposition r.
- c. A nominal which heads a Benefactive arc is flagged with the postposition gáne.
- d. A nominal which is an absolutive or heads a 2 chômeur arc occurs in ABS case (that is, is unmarked).
- e. A nominal which heads a Source arc or a 1 chômeur arc is flagged by the postposition tsum.
- f. A nominal which is an ergative is marked by ERG case.

No mention is made of specific levels at which nominals bear these relations, nor are there restrictions on what other GRs a nominal might bear in a clause. Certain of these rules are crucially ordered with respect to each other. These ordered pairs are presented below, along with the syntactic constructions which require these orderings:

⁹¹ I am indebted to Albert Bickford for this analysis.

⁹² There is one small class of verbs with lengthened prefixes which do not fit any of the categories described so far. Two of these verbs are déematalas *yawn* and déepirkinas *stumble*. These verbs are similar to unaccusative verbs in that they show agreement in both the prefix and suffix with the experiencer, yet the agreement prefix is definitely long, not short:

- (xxxiv) a.

jé	dáamatalam
je	d-a-<L>-matal-am
1s/ABS	d-1s-?-yawn-1s/PAST
	<i>I yawned.</i>
- b.

hír	déepirkanimi.
hir	d-e-<L>-pirkan-imi
man,m/ABS	d-3sm-?-stumble-3sm/PAST
	<i>The man stumbled.</i>

It is unclear to me how to analyze clauses with these verbs.

- (159) Ordered pairs of case marking rules
- a. (158a), (158d) - Possessor ascension
 - b. (158b), (158c) - Benefactive-3 advancement
 - c. (158b), (158d) - 3-2 advancement, 2-3 retreat
 - d. (158b), (158f) - Inversion
 - e. (158d), (158e) - Source-2 advancement
 - f. (158d), (158f) - Antipassive
 - g. (158e), (158f) - Passive

In this analysis, unmarked case cannot be the default marking. The rule for ABS case must apply before at least two other case marking rules, that which marks Sources and 2 chômeurs, and that which marks ergatives.

10. Conclusion

In this paper I have examined a number of commonly used clausal constructions in Burushaski. By employing a grammatical framework which makes use of grammatical relations at different strata in a clause, a wide range of agreement and case marking phenomena have been accounted for. I have shown that Burushaski has many of the same grammatical constructions found in widely diverse languages, such as passive, 3-2 advancement, 2-3 retreat, and others.

The RG notions of unaccusative and unergative are sufficient to characterize the two major groupings of intransitive verbs in Burushaski. Unaccusative verbs are distinct from unergative verbs in that they require an object agreement prefix and allow causativization with *ḡ-*.

The variety of nominals that can trigger object agreement on the verb are accounted for by various revaluation constructions. By saying that Burushaski sanctions passive, 3-2 advancement, Source-2 advancement, 2-3 retreat, and others under varying conditions, we are able to state the generalization for object agreement in a very succinct way; verbs agree with final nuclear terms, and 2s trigger object agreement.

A similar statement can be made for subject agreement once it is stated that the grammar sanctions inversion, multi-predicate causative constructions, and impersonal constructions with a silent dummy nominal. Positing silent dummies provides an explanation for why certain bodily process verbs consistently have third person "y" class subject agreement prefixes and a long vowel in the object agreement prefix.

Burushaski particularly lends support for the RG claim that antipassive constructions are characterized as those in which a nominal is demoted from 1 to 2, and advances to 1 again by unaccusative advancement. The antipassive analysis accounts for the various transitive and intransitive characteristics that clauses with antipassive verbs have, especially object agreement in the verb with the notional subject.

The RG notion of ascension is sufficient to account for possessor object agreement with verbs that govern this construction. The possessor of a direct object ascends to bear the 2 relation in the main clause and therefore triggers the appropriate agreement in the verb.

Analyzing clauses with auxiliaries as multi-predicate constructions helps to account for the absence of object agreement on *ḡ* to *be*, its presence with *étas* to *do*, and its presence or absence with *manáas* to *become*. The auxiliary *ḡ* requires that grammatical relation changing constructions occur in the initial P-sector; *manáas* requires that GR changing constructions occur in the final P-sector; and *étas* prohibits any GR changing constructions in any P-sector.

Causatives and inversion are also seen as multi-predicate constructions in Burushaski. Under this analysis, lack of object agreement in inversion constructions is a consequence of the

requirement of the auxiliary b that GR changes occur in the 'inner' clause. Vowel length in the object agreement prefix is a result of causative in clauses with verbs that sanction this construction.

Case marking of certain nominals in Burushaski is often sensitive to grammatical relations that they bear in a clause, without reference to levels. This is true for indirect objects, Possessors and Sources (with the exception of one verb). Thus if a nominal bears one of these relations in a clause it will receive the appropriate marking, no matter what other grammatical relations it bears.

The rule for ergative case marking is similar. In order for a nominal to receive ERG marking it must be an ergative and head only a 1 arc. It need not be finally ergative; a claim which is supported by the analysis of clauses with 2-3 retreat constructions. Thus the nominals that are final subjects in inversion, antipassive and passive clauses are not marked with ERG case because they also bear the 2 relation at some level in these clauses.

In this analysis, any nominals that are not case marked by a specific rule receive no overt marking (ABS case) by default. Alternatively, the case marking rules can be generalized further when they are applied disjunctively. In this case however, a specific rule for ABS (unmarked) case marking is required.

Appendix: Summary of rules

Verb agreement rules

- a. The verb agrees with final nuclear terms.
- b. A final nuclear term which heads a 1 arc (in any stratum) determines subject agreement.
- c. A final nuclear term which heads a 2 arc (in any stratum) determines object agreement.
- d. Nouns of the 'seeds' class do not determine object agreement on the auxiliary manáas.
- e. Verb agreement is determined by the GRs that nominals bear in the final P-sector of a clause.
- f. The u- prefix registers passive on inflectible verbs and blocks object agreement.

Case marking rules

- a. A nominal which heads a 3 arc is flagged with the postposition r.
- b. A nominal which heads a Source arc (and which is not the final 2 of duGárusas) or a 1-chômeur arc is flagged with the postposition tsum.
- c. A nominal which heads a POSS arc is marked with OBL case.
- d. A nominal which heads a final Benefactive arc is flagged with the postposition gáne.
- e. A nominal which is an ergative and heads only a 1 arc in a non-future tense clause is marked by ERG case.

Case marking rules (disjunctively ordered)

- a. A nominal which heads a POSS arc is marked with OBL case.
- b. A nominal which heads a 3 arc is flagged with the postposition r.

- c. A nominal which heads a Benefactive arc is flagged with the postposition gáne.
- d. A nominal which is an absolutive or heads a 2 chômeur arc occurs in ABS case (that is, is unmarked).
- e. A nominal which heads a Source arc or a 1 chômeur arc is flagged by the postposition tsum.
- f. A nominal which is an ergative in a non-future tense clause is marked by ERG case.

Auxiliary selection rules

- a. Nouns, adjectives and uninflectable verbs cannot bear the P relation in the final P-sector.
- b. Select the auxiliary b if and only if:
 - i. there is 2-1 advancement in the initial P-sector, and
 - ii. the clause is finally unergative.
- c. Select the auxiliary manáas if and only if:
 - i. any GR changing constructions, if they occur, occur in the final P-sector, and
 - ii. the clause is finally unergative.
- d. Select the auxiliary étas if and only if:
 - i. there are no GR changing constructions in any P-sector, and
 - ii. the clause is finally transitive.

Conditions concerning possessor ascension

- a. The subject and the possessor may not be co-referential.
- b. The host must be a 2.
- c. Possessor ascension is governed by a class of verbs, and is required by them when the other conditions are met.

Rules concerning causatives

- a. Causatives disallow any GR changing constructions in any P-sector.
- b. The P-final 1 in the last non-causative P-sector is a P-final 2 in the causative P-sector.
- c. Uninflectable verbs may not be causativized.
- d. Select s- if the clause is initially unaccusative.
- e. Select \emptyset - if the clause is initially unergative.
- f. Lengthen the vowel of the object agreement prefix if the clause contains a constituent which heads a final arc in the clause but not an initial arc. In other words, select <L> if the clause
 - i. is causative and initially transitive, or
 - ii. contains a possessor ascension construction, or
 - iii. contains a dummy.
- g. Rules d-f are disjunctively ordered.

Abbreviations

ABS	absolutive	p	plural
CAUS	causative	PA	possessor ascension
Cho	Chômeur	PASS	passive
COMP	complementizer	PAST	past
d, "d-"	prefix	PL	plural
D	Dummy	prx	proximate
DEM	demonstrative pronoun	PSTPRF	past perfect
ERG	ergative	POSS	possessor
f	feminine	PRES	present
FUT	future	PRSPRF	present perfect
h	human	QUEST	question
IMP	imperative	REFL	reflexive
IMPF	imperfect	REL	relative pronoun
INDEF	indefinite	s	singular
INF	infinitive	STATPRT	stative participle
<L>	lengthening	Tem	Temporal
Loc	locative	x	"x" noun class
m	masculine	y	"y" noun class
Mal	Malefactive	1,2,3	in glosses: first, second, third person; in diagrams: subject, direct object, indirect object
NEG	negative		
OBL	oblique (non-feminine form)		
OBLf	oblique (feminine form)		

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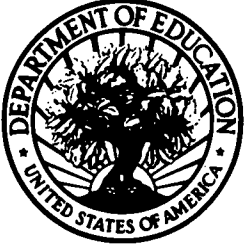
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