

## Part II – THEORETICAL ISSUES

### TRANSITIVITY AND ITS SURROUNDINGS

The aim of this chapter is to show the characteristics and the relationship among issues concerning transitivity and its surroundings in Burushaski. First, I show the transitivity parameters by Hopper and Thompson (1980) in §9.1. And then, §9.2 deals with preliminaries for the discussion of transitivity and the marking system in Burushaski. Mainly treated here are the relations between transitivity and ergativity (§9.3), (in)transitivity and volitionality (§9.4), and transitivity and likelihood of the object (§9.5).

#### 9.1. **Transitivity: Hopper and Thompson (1980)**

Hopper and Thompson (1980) identified the following ten semantic parameters which are components of transitivity, see Table 110.

Table 110. Components of transitivity (Hopper and Thompson 1980: 252)

	HIGH	LOW
(A) PARTICIPANTS	2 or more participants, A and O	1 participant
(B) KINESIS	action	non-action
(C) ASPECT	telic	atelic
(D) PUNCTUALITY	punctual	non-punctual
(E) VOLITIONALITY	volitional	non-volitional
(F) AFFIRMATION	affirmative	negative
(G) MODE	realis	irrealis
(H) AGENCY	A high in potency	A low in potency
(I) AFFECTEDNESS OF O	O totally affected	O not affected
(J) INDIVIDUATION OF O	O highly individuated	O non-individuated

Among them, (E) VOLITIONALITY and (J) INDIVIDUATION OF O will be related to the discussion on Burushaski in this dissertation.

As far as I know, no article or book is solely devoted to transitivity in Burushaski, so only general information is covered here.

## 9.2. Preliminaries

Here I give preliminary information as follows: template for verbs (§9.2.1), nominal classes (§9.2.2), marking systems (§9.2.3), and distinction of stems in terms of transitivity (§9.2.4).

### 9.2.1. Template for verbs

As a preliminary to transitivity considerations, I show the concrete system of verb stem formation here. For the details of the verbal morphology, see §6.

Burushaski has a templatic morphology and the derivation of verb stems is also explained by accounts with a template. First, note the following template for the verb, Figure 17.

(-4)	(-3)	(-2)	(-1)	0	(+1)	(+2)	(+3)	+4	(+5)
NEG	TEL	PERS	CAUS	ROOT	PL	ASP	PERS	MOD/AUX	PERS/COND

Figure 17. Template for verbs

The framed part is the range of stems. Stem formation slots are [-3: Telic (Aktionsart)], [-2: Personal], [-1: Causative], [0: Root], [+1: Plural Absolutive Participant], and [+2: Aspect]. Among them, those which influence the changing of stem valency are the former three slots.

The [-3: Telic] slot has a stem forming prefix *d-* (telic) that may decrease the valency of a stem.

The [-2: Personal] slot can take personal prefixes for stem formation. Personal prefixes are classified into three types according to the vowel quantity (see Table 111), and the stems formed by the prefixes vary depending on which type of personal prefix is attached. The neutral personal prefix slot (which has not yet agreed with any referent) is represented by “@”. The types are represented by the following symbols over a hyphen “ - / ˘ / ˙ / ˚ ”, showing Type-I without an accent, I with an accent, II, and III, respectively. These personal prefixes are used for some nouns to indicate inalienable possession as well.

Table 111. Three types of personal prefixes

	Type-I (@-/@')		Type-II (@')		Type-III (@')	
	SG	PL	SG	PL	SG	PL
1	<i>a-</i>	<i>i-</i>	<i>á-</i>	<i>mé-</i>	<i>áa-</i>	<i>mée-</i>
2	<i>gu-</i>	<i>ma-</i>	<i>gó</i>	<i>má-</i>	<i>góo-</i>	<i>máa-</i>
3	HM <i>i-</i>	<i>u-</i>	<i>é-</i>	<i>ó-</i>	<i>ée</i>	<i>óo-</i>
	HF <i>mu-</i>		<i>mó-</i>		<i>móo-</i>	
	X <i>i-</i>	<i>u-</i>	<i>é-</i>	<i>ó-</i>	<i>ée-</i>	<i>óo-</i>
	Y <i>i-</i>	<i>i-</i>	<i>é-</i>	<i>é-</i>	<i>ée-</i>	<i>ée-</i>

In the view of stem formation, roughly speaking, the valency of a stem tends to increase from stems without a personal prefix ( $\emptyset$ -stems) as the least valent, stems with type-I personal prefixes (I-stems), to stems with type-II prefixes (II-stems), to stems with type-III prefixes (III-stems) as the most valent. Derivation is not freely processed and each stem has a fixed pattern of personal prefix types that are able to attach to it. By the derivational pattern with the personal prefix, Burushaski verbs can be briefly classified into four groups of root:  $V_{1V}$ ,  $V_1$ ,  $V_2$ , and  $V_3$ . The subscripted numbers indicate radical valency of each verb from mono- to trivalent.

The [-1: Causative] slot has the only option *s-* (causative). This prefix always requires the Type-II or III personal prefix at [-2]. Both Type-II and III personal prefixes increase the valency of stems by one basically, thus it may be thought that *s-* (causative) serves only the function of clarifying that the valency of the stem is more than that of the root. This function can be detected by the fact that there are several pairs of stems with and without *s-* (causative) such that both members of a pair have the same meaning and usage, such as *d-@'kukin-* = *d-@'s-kukin-* 'to thin down, to extend; to ignite a fire' (cf. *du-khíkin-* 'to thin down itself, to spread; to catch fire').

### 9.2.2. Nominal classes

Burushaski nouns are classified into four agreement classes: HM, HF, X, and Y-class. The classification nearly aligns with the characteristics of each referent entity and, roughly speaking, HM-class is composed of human-male referents, HF is human-females, X is concrete things, and Y-class is made up of abstract concepts.

HM- and HF-classes neutralize in the plural so that they behave in the same way, and then the merged class is called H-class. Some Y-class referents have a unique behaviour in that they sometimes appear in adverbial use without any case marking and that they take the same oblique case marker as HF-class. These referents can be

considered as being in a subclass of the Y-class, called Z-class. Z-class includes mainly temporal nouns. Table 112 shows some examples of each nominal class.

Table 112. Extension examples of each nominal class

H		X	Y						
HM	HF		Z						
<i>hir</i>	‘man’	<i>gus</i>	‘woman’	<i>huk</i>	‘dog’	<i>chil</i>	‘water’	<i>gunc</i>	‘day’
@-úy	‘father’	@-mi	‘mother’	<i>juú</i>	‘apricot fruit’	<i>juú</i>	‘apricot tree’	<i>chórdi</i>	‘morning’
@-i	‘son’	@-i	‘daughter’	@-s	‘heart’	@-ríŋ	‘hand’	<i>ađít</i>	‘Sunday’

The names of each class are traditional in Burushaski studies and I adopt them, in accord with most Burushaski studies.

### 9.2.3. Marking systems

Burushaski has the following three systems for marking core arguments:

- Marking by the nominal case suffix,
- Marking by the verbal personal suffix,
- Marking by the verbal personal prefix.

Each marking system is explained by different sections below.

#### 9.2.3.1. Case suffixing

Nominal arguments take case suffixes for marking several syntactic or semantic functions. Core arguments require any of the following three cases:

- Absolutive: -∅,
- Ergative: -e; shows the same form as the genitive marking but with HF- and Z-classes they differ in whether they take an oblique case marker before them or not (§3.5.3),
- Dative: -ar; which is also used for peripheral arguments.

Relationships between case and grammatical role will be explained in detail in §9.2.3.4. Burushaski has the case marking system of the ergative pattern.

## 9.2.3.2. Personal suffixing

Finite (verbal) predicates always takes a personal suffix at the [+3] or the [+5] slot. These two slots serve the same function but personal suffixes are distributed to either slot according to person-number and aspect. Personal suffix sets are listed separately for verbs, Table 113, and (auxiliary) copulas, Table 114.

Table 113. Subject suffixes for verbs

	SG	PL
1	-a	-an
2	-a	-an
3 HM	-i	-an
HF	-o	
X	-i	HZ -ie(n) / NG -io
Y	-i	-i

Table 114: Subject suffixes for copulas

	SG	PL
1	a	-an
2	-a	-an
3 HM	-i	-an
HF	-o	
X	-i	HZ -ié(n) / NG -ió
Y	-il	-icá(n)

The function of the personal suffix is, as the titles of these tables show, to mark for subject. Details will be given later in §9.2.3.4. Burushaski has the personal agreement system by suffixes of the accusative pattern.

## 9.2.3.3. Personal prefixing

Besides the personal suffix, some verb stems hold a slot for the personal prefix (Table 111) as mentioned §9.2.1 above. Briefly speaking, the function of the personal prefix for verbs is marking for undergoer or theme. See §9.2.3.4 for further discussion.

## 9.2.3.4. Split of marking axes

The three marking systems quite briefly accounted previously serve on different functional axes, and then, of course, their marking patterns show different distributions (see §8.4 for details, in the grammar section). Illustrated first are the most typical sample sentences of an intransitive (314), a monotransitive (315), and a ditransitive (316) clause.

## (314) Intransitive

*ín*            *hérumo.*  
*ín-Ø*        *hér-m-o*  
 s/he:DIST-ABS cry-NPRS-3SG.HF

‘She cried.’

## (315) Monotransitive

*íne*            *huk*        *ésqanumo.*  
*ín-e*            *huk’-Ø*    *i’s-γán-m-o*  
 s/he:DIST-ERG dog-ABS 3SG.X:II-CAUS-be.finished-NPRS-3SG.HF

‘She killed the dog.’

## (316) Ditransitive

*íne*            *únar*        *huk*        *guúmo.*  
*ín-e*            *ún-ar*        *huk’-Ø*    *gu-u’-m-o*  
 s/he:DIST-ERG thou-DAT dog-ABS 2SG:I-give:X.OBJ-NPRS-3SG.HF

‘She gave you the dog.’

Illustrated here are the divergent patterns of each marking system with mapping on figures so that they may be easily compared with one another: intransitive clauses with a core argument, S(ubject), monotransitives with two core arguments, A(gent) and O(bject), which accords with the terminology of Hopper and Thompson (1980), and ditransitives with three core arguments, A, T(heme), and R(ecipient). Note that these abbreviations are merely the representative and central role of each argument so that the actual semantic roles of arguments in texts can vary as depending on predicates, but they are represented here with the simplified abbreviation for the benefit of general discussion.

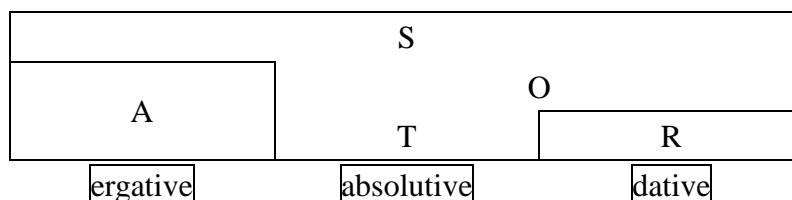


Figure 18. Marking by the case markers

Case marking is tripartite as mentioned in §9.2.3.1. As shown in Figure 18,

Burushaski case marking shows the indirective alignment pattern, in the terminology of Haspelmath (2005). The only argument in intransitive clauses [S] and a (direct) object argument [O/T] in transitive clauses are marked with the absolutive case marker, a subject argument [A] in transitive clauses is declined by the ergative case marker, and an indirect object argument [R] in ditransitive clauses is marked with the dative marker. (However, there is split ergativity in Burushaski, with which a subject argument is able to take a case other than ergative. The phenomenon is discussed in detail in §9.3, and Figure 18 abstracts away from the split ergativity.)

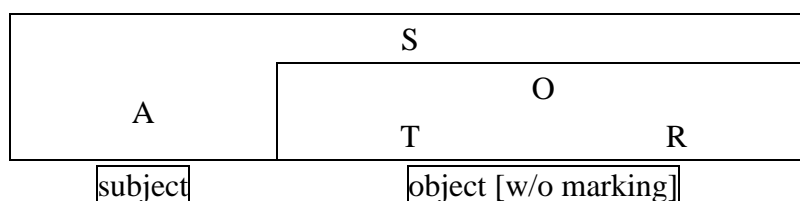


Figure 19. Marking by the personal suffix

Concerning the personal suffix, the marking system is dichotomous: a personal suffix agrees with the subject argument S/A, and no suffix is used to mark the object arguments O/T/R, see Figure 19. Here, Burushaski does not show ergative verbal morphology. (This is a point where Burushaski shows a different feature from the general languages in the Indian Subcontinent.)

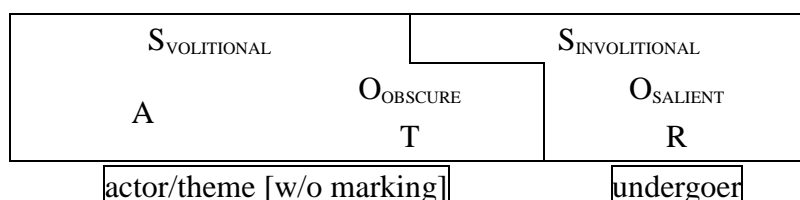


Figure 20. Marking by the personal prefix

Finally, the marking system of the personal prefix is somewhat complicated as shown in Figure 20. In this agreement system, both the only arguments in intransitive clauses (S) and the only object arguments in monotransitive clauses (O) are subdivided by whether the stem takes the personal prefix slot or not. Their behaviour can be surmised in that the only arguments in involitional intransitive clauses (S<sub>INVOLITIONAL</sub>) and the salient object arguments in monotransitive clauses (O<sub>SALIENT</sub>) are marked with a personal prefix, and so are the indirect object arguments in ditransitive clauses (R). This agreement tendency can be regarded as agreeing with an argument that brings a higher likelihood of being an undergoer, so that the target of the agreement by the personal

prefix is undergoer arguments (U). In other words, the personal prefix divides all arguments into two groups, so that there is not agreement with typical S/A and T, but there is agreement only with U. I will discuss this agreement system furthermore in §9.4 for the only arguments in intransitive clauses (S) and in §9.5 for the object arguments in monotransitive clauses (O), respectively, so see these sections also.

The roles of case marking, personal suffixes, and personal prefixes have been detailed above. These three different axes all contribute to transitivity. In the next section, I propose the way to know the valency of a verb in discourse by the lines of determining the functions of individual markings, which would be useful for discussions of transitivity in Burushaski.

#### 9.2.4. Distinction among intransitive, monotransitive, and ditransitive verbs

To distinguish whether a finite verb in Burushaski is intransitive or monotransitive or ditransitive, the gap among the axes of three kinds of marking systems mentioned in §9.2.3.4 is sufficiently useful.

§9.2.4.1 deals with the flow diagram and the account for the distinction of different types of verbs, and then §9.3 details the issue of ergativity, and these issues work as effective characteristics for distinction.

##### 9.2.4.1. Flow diagram and distinction

Figure 21 is the flow diagram for distinction of verb stems among in-, mono-, and ditransitive.

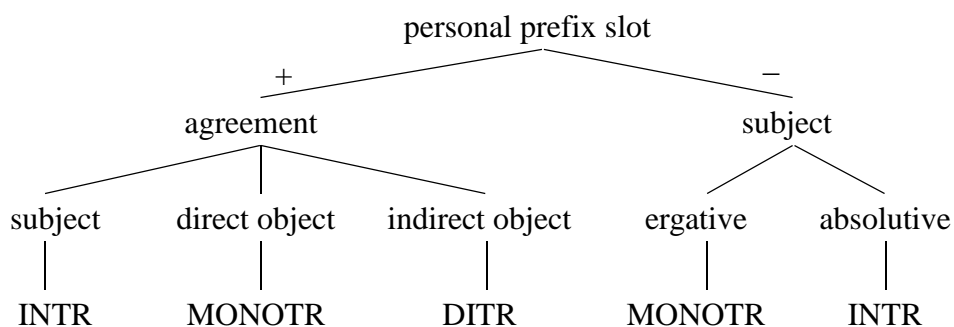


Figure 21. Flow diagram for distinction of verb stems

The first step in distinguishing a stem is to check whether it has the personal prefix slot or not. Diverge to the left branch if it has the slot, or to the right branch if not.

At the left branch, stems with the personal prefix at the [-3] slot branch off



according to the argument agreement type of the prefix. When a personal prefix and a personal suffix are agreeing with the same referent, then the verb stem is intransitive. In the cases that the indexed referents of a personal prefix and a personal suffix are not the same, if the indexed argument of a personal prefix takes the absolutive case marker; that is, the argument is the (direct) object in the clause, and the stem is monotransitive; if the indexed argument is in dative case as an indirect object, then the verb stem is ditransitive.

On the other hand, at the right branch, it is important to distinguish the kind of stems that are indexed by the case indicated by the personal suffix. The argument takes the ergative case marker if the stem is monotransitive, and takes the absolutive case marker if it is intransitive. Detailed background of this criterion will be covered in §9.3 below. Here I give the three typical sentences of intransitive (314), monotransitive (315), and ditransitive (316) clauses again.

## (314) Intransitive

<i>ín</i>		<i>hérumo.</i>
ín-Ø		hér-m-o
s/he:DIST-ABS		cry-NPRS-3SG.HF

‘She cried.’

## (315) Monotransitive

<i>íne</i>	<i>huk</i>	<i>ésqanumo.</i>
ín-e	huk’-Ø	i’-s-γán-m-o
s/he:DIST-ERG	dog-ABS	3SG.X:II-CAUS-be.finished-NPRS-3SG.HF

‘She killed the dog.’

## (316) Ditransitive

<i>íne</i>	<i>únar</i>	<i>huk</i>	<i>guúmo.</i>
ín-e	ún-ar	huk’-Ø	gu-u’-m-o
s/he:DIST-ERG	thou-DAT	dog-ABS	2SG:I-give:X.OBJ-NPRS-3SG.HF

‘She gave you the dog.’

The flow diagram is practically valid for distinction within finite verbs in clauses without argument omission. On the contrary, if this method fails in distinction of a finite verb in transitivity, then it suggests that there must be some core argument(s) omitted in

the clause.

### 9.3. Transitivity and ergativity

The Burushaski language allows free omission of the argument so long as it is in some sense pragmatically inferable. Consequently, it is not rare that there is just one argument or no argument in a clause even though the predicate verb of the clause is transitive, which of course requires two or more core arguments, in isolated utterances. In such instances of argument omission, however, the cases of core arguments in a clause are constantly decided by the system which Figure 18 shows.

By definition, the subject arguments in ergative languages are given the status of the absolutive case in intransitive clauses as well as the one of ergative case in transitive clauses. Some languages, however, employ the ergative case as reflecting the agency of an argument, in clauses of varying degrees of transitivity. For example, Urdu has a fluid-S system, which allows the appearance of ergative in an intransitive clause:

- (317) a. *Zubiya rō-ī*  
 Zubiya:NOM cry-PFV.F.SG  
 ‘Zubiya cried’
- b. *Zubiya=ne rō-yā*  
 Zubiya=ERG cry-PFV.M.SG  
 ‘Zubiya cried (on purpose)’

Here, the subject is in nominative case in (317a): it is not that the referent Zubiya cried actively but that the agency of the subject is low so that it remains in nominative case; on the other hand, (317b) mentions the proposition in which Zubiya intentionally cried and she is high in agency (volitionality here), and it can be considered that hence the subject Zubiya is marked in ergative not in nominative, despite that the predicate verb is intransitive. This is an example of the fluid-S system in Urdu.

But Burushaski does not show such fluidity in case marking. Any verb stem has a strictly fixed case for its subject. On one hand, any verb with an absolutive subject cannot have an object argument, even if all the contents of the clause are fully reconstructed. On the other hand, any verb with an ergative subject always has an absolutive argument (or a complement clause) in the fully reconstructed clause. From a different point of view, it can be said that a subject argument in a transitive clause takes the ergative case marker as a lower ranked case because the absolutive case, which is

the highest case in rank, is carried by an object argument whether that object is overt or covert.

- (318)    *Zubiá*        *hérumo*  
           *Zubiá-Ø*      *hér-m-o*  
           Zubiya-ABS cry-NPRS-3SG.HF

‘Zubiya cried (whether or not on purpose)’

The intransitive verb stem *hér-* ‘to cry’ takes an absolutive subject argument whether it is used in the volitional or nonvolitional sense as the example (318) shows.

In this way, the case of a subject is tightly fixed for each stem depending on its transitivity in Burushaski. Unlike Urdu, Burushaski shows a perfect correlation between the ergativity of subject arguments and the transitivity (the opposition of transitive to intransitive) of verb stems.

But in Burushaski, parallel to the fluid-S case system in Urdu and some other languages, there is a split derivational system for intransitive stems that I will mention later in §9.4.

Furthermore ergativity in Burushaski splits in relation to presentness and person, while the language shows considerably consistent ergative alignment in the case marking. Adding to the above description on ergativity, here I account for the split ergativity in Burushaski.

Dixon (1994: 99–100) refers to Lorimer (1935a) and Tiffou et Morin (1982), saying that both person and the opposition of past tense vs. non-past tense cause the split in Burushaski.

But actually the loss of ergativity is seen in the first person singular future and conditional (except for the Nager dialect) expressions and the second person future and conditional ones. The construction of each form are shown in Table 115, and conditional forms include both the imperfective suffix *-č* and the non-present suffix *-m* as well as future forms do (§6.7 for details). Here the term future indicates both the future form and the present form with a future sense (‘to be going to do (now)’). However, present forms with a future temporal reading often retain ergativity and actual future forms also may take the ergative case marker as in (319).

Table 115. Temporal labels which finite verbs can be conjugated in

[+4] <sup>v</sup>	[+2] <sup>v</sup>	perfective aspect (w/o suf.)	imperfective aspect: -č
present mood: -∅		prospective	N/A
non-present mood: -m		simple past	future
COP-∅		present perfect	present
COP-m		past perfect	past imperfect

- (319) *je / jáa imóos éča báa.*  
*jé-∅ / jé-e i-moos'∅ i-t'č-a+bá-a-∅*  
 I-ABS / I-ERG 3SG.HM:I-anger-ABS 3SG.Y:II-do-IPFV-1SG+COP:H-1SG-PRS

'I make him angry now.' (Berger 1998a: 64)

There is no semantical gap between the sentence with the absolutive subject and with the ergative subject in (319).

Isolating first and second persons accords with the universal nominal animacy hierarchy. The nominal hierarchy shown in Figure 22 illustrates that the further left a nominal is, the higher its agency; that is, the more easily it stands for an agent in an unmarked status.

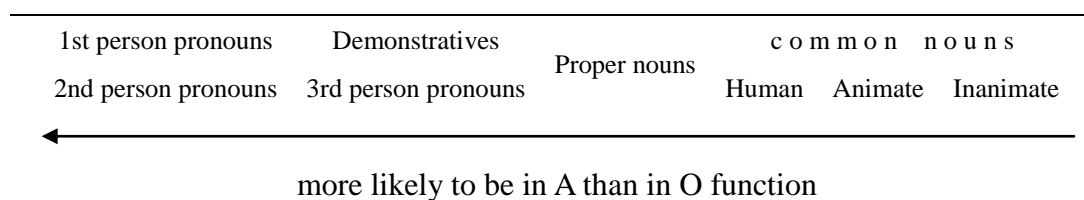


Figure 22. The Nominal Hierarchy (Dixon 1994: 85; modified as referring to *ibid.* 83–97)

Furthermore, in Burushaski the second person tends to lose ergativity more than first person, as mentioned above, so that second person should come to the leftmost position in Figure 22. And all the items further right than the first person pronouns take the ergative case marker to be a subject in transitive clauses. Then the split ergativity in Burushaski can be illustrated as Figure 23.

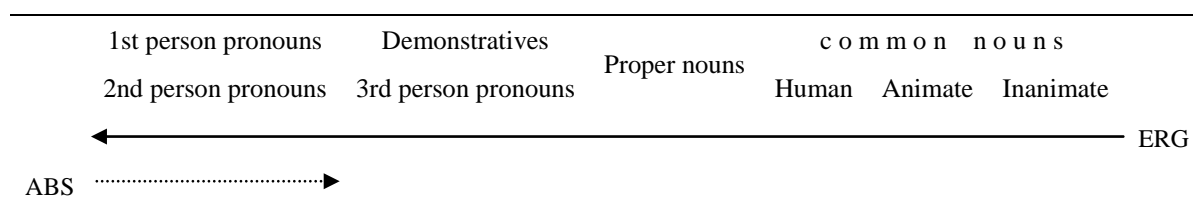


Figure 23. The range of split ergativity in Burushaski

#### 9.4. Split intransitivity among intransitive stems

The functional opposition indicated by a fluid-S case system in Urdu is similar to the difference in stem derivation in Burushaski. This section deals with the opposition, which is observed as split intransitivity among intransitive stems, or as a fluid-intransitivity system with  $V_1$  roots.

Here I have made sure of what Berger (1998) described on the function of personal prefixes for intransitive stems.

##### 9.4.1. Paired intransitive stems

Univalent verb roots in Burushaski ( $V_1/V_{1V}$ ) (§6.3.2) are mainly subdivided into three types in derivational morphology. The first type is for those which cannot take the personal prefix slot at all ( $V_1$ ): *ní-* ‘to go’, *hér-* ‘to cry’, and so on; the second type is for those which have to take the personal prefix slot ( $V_{1V}$ ): *@-ír-* ‘to die’, *@-yan-* ‘to sleep’, and so on; and the third type is for those which have both stems with and without the personal prefix slot ( $V_{1V}$ ). I list all verbs of the third type from the word list of Berger (1998c) in Table 116.

Table 116. Ø- vs. I-stem pairs of intransitive verbs

ROOT	Ø-STEM	I-STEM	MEANING
√bal	<i>bal’</i>	<i>@-wár-</i>	fall
√balúu	<i>balúu-</i>	<i>@-wáal-</i>	be lost
√bar	<i>du-wár-</i>	<i>d-@’war-</i>	revive
√bás	<i>du-wáas-</i>	<i>d-@’was-</i>	remain
√búy	<i>búy-</i>	<i>@-úy-</i>	dry up
√čhayúr	<i>du-čháγur-</i>	<i>d-@’čaγur-</i>	get cold
√garáy	<i>di-yáray-</i>	<i>d-@’yaray-</i>	get worm
√gir	<i>gir’</i>	<i>@-gír-</i>	be familiar
√yan	<i>du-γán-</i>	<i>d-@’yan-</i>	be finished
√yanđer	<i>du-γánđar-</i>	<i>d-@’yanđar-</i>	be bent
√yas	<i>γas’</i>	<i>@-γás-</i>	rot

ROOT	Ø-STEM	I-STEM	MEANING
√yul	yulú-	@-yúl-	be burnt
√yun	du-yún-	d-@'yun-	ripen
√yurc	yurc'	@-yúrc-	dive / drown
√huy	du-úy-	d-@'y-	melt
√kharán	kharán-	@-kháran-	be late
√khaṭ	du-khát-	d-@'kaṭ-	be obstructed
√ltalén	talén-	@-ltálan-	change
√ltapú	du-ltápu-	d-@'ltapu-	wither
√maay	du-máay-	d-@'may-	live in peace
√man	man'	@-mán-	become
	du-mán-	d-@'man-	be born
√ri	di-r'	d-@'ri-	be boiled up
√šawár	di-šáwar-	d-@'šawar-	melt
√ški	di-ški-	d-@'ški-	sprout
√šqur	du-šqúr-	d-@'šqur-	be acidified
√thamí	thamí-	@-thámi-	be closed
√waq	du-wáq-	d-@'waq-	get wet
√yaay	di-yáay-	d-@'yay-	be fixed

The second and third types have the personal prefix slot on stems, and the personal prefix agrees with a nonvolitional subject as mentioned in §9.2.3.3 above. The next section deals with the agreement in detail.

#### 9.4.2. Intransitivity and volitionality

Here I first describe the verb roots which have to have the personal prefix slot. I have shown two example stems of this type of verb: @-ír- 'to die' and @'yan- 'to sleep'.

The events that these verb stems refer to are the ones that occur spontaneously and cannot happen intentionally. @-ír- 'to die' is not used for the proposition whereby one gets dead by oneself. Instead, such a proposition would be expressed with a transitive verb stem and a reflexive pronoun as in (320).

- (320) *íne mukhár ésqanumo.*  
 ín-e mu-khar'-∅ i-s-yan'-m-o  
 s/he:DIST-ERG 3SG.HF:I-REFL.PRN-ABS 3SG.Y:II-CAUS-be.finished-NPRS-3SG.HF

‘She died by herself. [lit. She killed herself.]’

That is to say, “intransitive verbs unable to lack the personal prefix” consist of nonvolitional verb roots.

Next, the verb roots which have both stems with and without the personal prefix slot will be described.

Intransitive verb stem pairs derived from this type of verb root show the kind of actions which can be either volitional or nonvolitional. For example, intransitives *man'* and *@-mán-* are derived from  $\sqrt{\text{man}}$  and both of them mean ‘to become’; there are events such that one becomes a state by oneself (+ volitional), and such that one becomes a state regardless of one’s consciousness (– volitional). The difference in volitionality is distinguished by using either the stem with the personal prefix or the stem without it as in (321).

- (321) a. *je yuníqışan amánabáa.*  
 jé-∅ yuníqış-an a-man'-a+bá-a-∅  
 I-ABS bad-INDEF.SG 1SG:I-become-1SG+COP-1SG-PRS

‘(Unconsciously,) I have become a bad man.’

- b. *je yuníqışan manábáa.*  
 jé-∅ yuníqış-an man'-a+bá-a-∅  
 I-ABS bad-INDEF.SG become-1SG+COP-1SG-PRS

‘(Deliberately,) I have become a bad man.’

Some roots are realised with somewhat different meanings of the stems according to the presence or absence of volitionality, (322).

- (322) a. *un yurcúma.*  
 ún-∅ yurc'-m-a  
 thou-ABS sink-NPRS-2SG

‘You submerged yourself.’

- b. *un*            *guyúrcuma*.  
 ún-∅            gu-yurc'-m-a  
 thou-ABS    2SG:I-sink-NPRS-2SG

‘You were drowned.’

√yurc is a verb root having the meaning of going deeper in water or similar, but once it has been tied up with volitionality, on one hand, the intransitive stem without the personal prefix *yurc'* means ‘to dive, to submerge oneself’, or on the other hand, when it has taken nonvolitionality by having the personal prefix, the intransitive stem @-yúrc- gets the meaning ‘to drown, to sink down.’

That intransitive I-stems express the nonvolitionality of action in this way depends on the function of the prefix as indexing an undergoer. The fact it has an undergoer indexed by the prefix while being an intransitive verb stem is interpreted such that the subject participant, the only argument in the intransitive clause, undergoes or suffers the event that the verb predicates. If it is an undergoing event, not an acting event, then it can be said that any intention of the subject is irrelevant there. That is to say, an undergoer subject is a nonvolitional subject.

As the line for the component (E) VOLITIONALITY in Hopper and Thompson’s list says, the degree of the intentionality of a subject is relative to the degree of the transitivity of a verb. It accords with the split between  $S_{VOLITIONAL}$  and  $S_{INVOLITIONAL}$  in Figure 20. That is, on one hand, the  $S_{VOLITIONAL}$  is indexed by the personal prefix and treated as an actor; and on the other hand, the  $S_{INVOLITIONAL}$  is treated more like an undergoer.

Thus ∅-stems are used for volitional events, and I-stems are for nonvolitional events. I conclude that this is the actual situation of split intransitivity in the derivation of intransitive verb stems.

## 9.5. Split transitivity among transitive stems

The next issue concerns split transitivity among transitive verb stems.

### 9.5.1. Paired transitive stems

Transitive verb stems in Burushaski can also be subdivided into three types. The first type is for those which have to take a personal prefix: @-t- ‘to do’, @-s- ‘to tell’, and so on; the second type is for those which cannot take a personal prefix: *sén-* ‘to say’, *óos-* ‘to put’, and so forth; and the third type is for those which are derived either with or



without the personal prefix slot, as listed in Table 117.

Table 117. Ø- vs. I-stem pairs of transitive verbs

ROOT	Ø-STEM	I-STEM	MEANING
√báalt	<i>báalt-</i>	@- <i>yáalt-</i>	wash
√bél	<i>bél-</i>	@- <i>yoól-</i>	wear
√bišá	<i>bišá-</i>	@- <i>waší-</i>	throw
√cucór	<i>cucór-</i>	@- <i>chócur-</i>	comb
√chapán	<i>chapán-</i>	@- <i>chápan-</i>	sew
√charkín	<i>charkín-</i>	@- <i>chárkin-</i>	cut up
√chu	<i>chú-</i>	@- <i>chú-</i>	bring away
√čhayált	<i>čhayált-</i>	@- <i>čháyalt-</i>	clamp
√čhamúr	<i>čhamúr-</i>	@- <i>čhámur-</i>	smash
√gámi	<i>gámi-</i>	@- <i>yámi-</i>	pay
√gán	<i>gán-</i>	@- <i>yán-</i>	take
√gaṭámur	<i>gaṭámur-</i>	@- <i>yáṭamur-</i>	full (cloth)
√gukór	<i>gukór-</i>	@- <i>khókur-</i>	peel
√gurgín	<i>gurgín-</i>	@- <i>úrgin-</i>	grind
√γark	<i>γark´</i>	@- <i>γárk-</i>	capture
√hén	<i>hén-</i>	@- <i>yeén-</i>	know
√ic	<i>yoóc-</i>	@- <i>yeéc-</i>	see
√jáli	<i>jáli-</i>	@- <i>jáli-</i>	scatter
√ltá	<i>tá-</i>	@- <i>ltá-</i>	put on
√ltan	<i>tan´</i>	@- <i>ltán-</i>	mash
√ltask	<i>task´</i>	@- <i>tásk-</i>	pull
√mac	<i>du-mác-</i>	d-@- <i>´mac-</i>	wrap
√malc	<i>malc´</i>	@- <i>málc-</i>	abuse
√maltár	<i>maltár-</i>	@- <i>máltar-</i>	spread
√murúṭ	<i>murúṭ-</i>	@- <i>múruṭ(in)-</i>	trim
√phus	<i>pus´</i>	@- <i>phús-</i>	tie up
√sarúu	<i>sarúu-</i>	@- <i>sáru-</i>	transport
√sú	<i>du-sú-</i>	d-@- <i>´c-</i>	bring to
√şú	<i>şú-</i>	@- <i>şú-</i>	eat
√ṭhaṭhár	<i>ṭháṭhar-</i>	@- <i>ṭháṭar-</i>	peck

## 9.5.2. Previous study: Berger (1998)

Berger (1998a: 120) states that a part of verb root may or may not take the prefix according to the class of an object argument: “Die primären trs. Verben, die nie ein Pron.präfix haben, waren ursprünglich wohl nur solche mit typischem y-Objekt, wie heute noch *thí-* „gießen“, *min-* „trinken“ (Flüssigkeiten y), und solche mit ständigem Pron.präfix bezogen sich auf Menschen oder Tiere, wie *[@]-ílikin-* „verehren“, *[@]-yáran-* „weiden (trs.)“<sup>†49</sup>, *[@]-mír-* „(unnatürlich) koitieren“. Die Festlegung der Pron.präfixe ist aber heute konventionell”. (Berger’s “die primären trs. Verben” are equal to V<sub>2</sub> verbs in Table 40.)

But his account of the transitive verbs with or without the type-I personal prefix slot barely deals with the verb stem pairs which oppose based on the presence of the prefix. Berger’s (1998a: 120) only description on such verb pairs is as follows: “In *[@]-wási-* „werfen (hx-Obj.)“ [the pair of a non-prefixed stem *bišá-*] fehlt das Pron.präfix regelmäßig in der 3.sg. hmx; es findet sich ohne erkennbare Nuance in einem Text aus Mu. (6.10; 11). Bei *chú-/[@]-chú-* „nehmen“ werden die Pron.präfixe nur bei Objekten der h-Klasse gesetzt, nicht bei solchen der x-Klasse, doch steht *ichúmi* in einem Text wiederum aus Mu. auch bei einem Tier (4.11; 13)”. His view is that the difference between the pairs of cognate Ø-stem and I-stem is determined by the nominal class of an object argument. While he suggests this diversity is based on the nominal class of the objects, I will show a sufficient number of examples contradict his opinion in §9.5.5.

## 9.5.3. Research method

Now I want to consider the criteria which decide and divide the verb stems with or without the type-I prefix slot. For that purpose, I will present evidence from the data of verb stem pairs *chú-/[@]-chú-* ‘to bring away’, which is referred to with the condition in Berger (1998), and *gán-/[@]-yán-* ‘to take’, which is not conditionalised by him, being detected from a narrative corpus.

If Ø-stems are regularly employed for Y-class objects and I-stems for HX-class objects as Berger (1998) advocates, then the distinction between Ø- and I-stems can be regarded as owing to the difference in objecthood inherently brought about by each nominal class. Figure 22 (The Nominal Hierarchy by Dixon) shows that H-class (for human referents) and X-class (for concrete referents including animals) are more likely to be S/A than the Y-class (for abstract referents), which is situated in the rightmost

<sup>†49</sup> It should be either word of *@-yár-* „weiden (trs.)“ or *@-yáran-* „(Kleinvieh) scheren“ according to his dictionary (Berger 1998c: 473).

position and is the most likely to be O. Extending this idea, and coupling it with Hopper and Thompson's suggestions, I suppose that the derivational division into Ø- and I-stems is caused by the likelihood of objects.

Therefore I present evidence of the characteristics of objects with their respective verb stems statistically, and try to determine an effective factor. For this research, I tentatively suppose the following characteristics of objects: overtness, nominal class, specificity, definiteness, and distance from the predicate. When collecting the data, if some examples of the verbs concerned have appeared repeatedly in the successive clauses in the same behaviour on classification, that is, the examples are in repeating utterances, then only the first example is used for data in this research.

#### 9.5.4. Data

This research is based on data from the following texts. All of these are narrative texts and are from these genres: legend, history, folktale, and fairy tale. Table 118 is the list of the source, the title, the approximate word volume, and the dialectal information of each sample text.

Table 118. Sample texts (texts from my own research are shown with [consultant's name - research year])

SOURCE	TEXT/BOOK TITLE	WORDS	DIALECT
Berger et al. (1996)	Libi Kisar	12,000	Nager; Hispar
van Skyhawk (2003)	Burushaski-Texte aus Hispar	39,000	Nager; Hispar
van Skyhawk (2006)	<i>Híspare Šajirá</i>	1,600	Nager; Hispar
[Muhammad Abbas - 2007]	The Story of Hopar	400	Nager; Hopar
Tikkanen (1991)	The Frog as a Bride	5,500	Hunza; Haiderabad
[Muhammad Ali - 2008]	<i>čhúmoe minás</i>	4,850	Hunza; Ganish
[Musa Beg - 2009]	<i>uskó jótišo urkái</i>	1,200	Hunza; Ganish
[Musa Beg - 2009]	<i>uyúm dayánum buš</i>	1,000	Hunza; Ganish

My analyses of examples from the textual data hereafter deal one by one with the supposed characteristics of objects: overtness, nominal class, definiteness, and distance from the head. First of all, I give the numbers for each verb stem in question in Table 119.

Table 119. The numbers of each stem

STEM	<i>chú-</i>	<i>@-chú-</i>	<i>gán-</i>	<i>@-yán-</i>
AMOUNT	28	31	53	33

In the discussion below, I disregard the differences of moods and finiteness for each stem because these things are unrelated to the choice of stems.

#### 9.5.5. Discussion

I observe the verb clauses, including verb stems listed in Table 119, with the preceding context, if necessary, to determine the characteristics of the arguments that each verb stem involves as an object.

At first, for each verb in question, I examine both i) whether there is an overt or a covert object with it and ii) in the cases where there is an overt object, whether the reference for the object is in the identical clause to the verb or in a different clause from it. (Burushaski is the kind of language which allows argument dropping so that transitive clauses do not always have both A and O arguments overtly.) The statistical result of the examination is in Table 120 below.

Table 120. Distribution of c/overt objects of each stem

		<i>chú-</i>		<i>@-chú-</i>		<i>gán-</i>		<i>@-yán-</i>		Ø-STEM		I-STEM	
IN THE SAME CLAUSE	OVERT	21	17	42	30	63	47						
IN A DIFFERENT CLAUSE	OBJECT	7	24	3	3	10	10	73	57				
COVERT OBJECT		0		7		8		0		8		7	

If I-stems are preferred as reflecting the likelihood of objects, they would take more objects overtly referred to in the same clause than Ø-stems. But both types of stems actually show similar distributions with each other, whether with overt or covert objects, and whether in the same clause or in a different clause.

Though I have lumped covert objects together in a category, the covert objects with *@-chú-* are shown in agreement by a personal prefix on the verb and so they may not be considered as having the same ambiguity as the ones with *gán-*. Further evidence of their clarity is that in all of the seven covert objects, the agreement targets of personal prefixes with *@-chú-* are either first or second person references, and consequently no ambiguity is detected with them, on one hand. On the other hand, the covert objects with *gán-* are not understandable from the context, or are clearly referred to in the subsequent clause; that is, the object is unclear or unknown to the hearer when the

clause with *gán-* has been uttered, as in (323).

(323) Covert object informed later

<i>qáo</i>	<i>manáasar,</i>	<i>yáare,</i>	<i>be ya,</i>	<i>akhíl</i>	
<i>qáo-Ø</i>	<i>man'as-ar</i>	<i>i-yáar-e</i>	<i>bé yá</i>	<i>akhíl</i>	
call-ABS	become-INF-DAT	3SG.Y:I-downwards-ESS	no INTERJ	in.this.way	
<i>numá</i>	<i>qáo</i>	<i>maními,</i>	<i>ye</i>	<i>ga,</i>	<i>nusé.</i>
n-man	<i>qáo-Ø</i>	<i>man'm-i</i>	<i>yé</i>	<i>gán-i</i>	<i>n-sén</i>
CP-become	cry-ABS	become-NPRS-3SG.Y	look:INTERJ	take-IMP:SG	CP-say
<i>akhúrus</i>	<i>tilíe</i>	<i>phúlanulo</i>		<i>qham</i>	
<i>akhúrus</i>	<i>tilí-e</i>	<i>phúl-an-ul-e</i>		<i>qhám-Ø</i>	
this.weight:X	walnut-GEN	small.wooden.bawl-INDEF.SG-LOC-ESS		curry-ABS	
<i>bilúm.</i>					
<i>b'il'm</i>					
COP-3SG.Y-NPRS					

‘When the call came, down the frog said: “No doubt, in this way the call has come, so take [this]!”, thus saying. In a tiny walnut shell pot of this size there was vegetable-soup.’ (Tikkanen 1991, *The Frog as a Bride*: #309–11)

The object of *ga* ‘take! (IMP.SG)’ is not concretely indicated in the preceding context and is thus unclear here. It becomes clear afterwards that the potential object is *qham* ‘curry, vegetable soup’, which is first introduced in the subsequent clause. In this way, it can be regarded that when an object for a verb is still unclear, the verb cannot take the personal prefix slot because the coreference is not realised, and this realisation may be a condition for its stem determination.

Next, I examine the distribution of overt objects in their nominal classes. This is the factor which Berger (1998) mentions with *chú-/@-chú-*.

Table 121. Distribution of overt objects to the nominal class

	<i>chú-</i>	<i>@-chú-</i>	<i>gán-</i>	<i>@-yán-</i>	Ø-STEM	I-STEM
H	0	19	0	9	0	28
X	16	4	4	22	20	26
Y	13	1	41	4	54	5

It is clear from Table 121 that there is a positive tendency of division of stems depending on the nominal classes of objects. At least within these two pairs of stems, in particular, H-class objects have a certain correlation with stems that have the personal prefix slot.

Meanwhile, X- and Y-class objects still show inconsistency. Berger (1998) specifies that almost all X-class objects and all Y-class ones require *chú-*, while all H-class objects and a few X-class ones appear with *@-chú-*. Now, what is the proportion of each stem in the data? Some counterexamples to Berger's view are observed, in fact (the numbers of counterexamples are framed in Table 121): (324) is an example of an X-class object with  $\emptyset$ -stem *chú-*, and (325) is an example of a Y-class object with I-stem *@-chú-* (but the agreement of the prefix on the verb and the object is showing a solecism here). X-class objects exhibit even a tendency to occur with the verb stems that do not show the personal prefix slot for  $\surd$ *chú*, but this is not the case for  $\surd$ *gán*.

(324) *chú-* with X-class object

<i>ye</i>	<i>jáa</i>	<span style="border: 1px solid black; padding: 0 2px;"><i>khosé</i></span>	<i>chúca báa</i>	<i>lée</i>
<i>yé</i>	<i>jé-e</i>	<i>khosé-<math>\emptyset</math></i>	<i>chú-č-a+bá-a-<math>\emptyset</math></i>	<i>léi</i>
look:INTERJ	I-ERG	this:X-ABS	bring.away-IPFV-1SG+COP-1SG-PRS	INTERJ:HM.OBJ
<i>babáa</i>	<i>wazíir.</i>			
<i>babá</i>	<i>wazíir</i>			
dad	minister			

‘Then I will get this, okay? You minister.’ (Berger et al. 1996: #222)

(325) *@-chú-* with Y-class object

<i>... ga,</i>	<i>nusé,</i>	<i>yákala</i>	<i>dip</i>	<i>ne,</i>			
<i>gán-i</i>	<i>n-sén</i>	<i>i-yákal-ar</i>	<i>díp-<math>\emptyset</math></i>	<i>n-i-t</i>			
take-IMP:SG	CP-say	3SG.X:I-direction-DAT	wink-ABS	CP-3SG.Y:II-do			
<span style="border: 1px solid black; padding: 0 2px;"><i>et</i></span>	<span style="border: 1px solid black; padding: 0 2px;"><i>še</i></span>	<span style="border: 1px solid black; padding: 0 2px;"><i>ke</i></span>	<span style="border: 1px solid black; padding: 0 2px;"><i>phaló</i></span>	<span style="border: 1px solid black; padding: 0 2px;"><i>ke</i></span>	<span style="border: 1px solid black; padding: 0 2px;"><i>maltáš</i></span>	<span style="border: 1px solid black; padding: 0 2px;"><i>ke</i></span>	<i>wazíire</i>
<i>ét</i>	<i>še</i>	<i>ké</i>	<i>phaló</i>	<i>ké</i>	<i>maltáš-<math>\emptyset</math></i>	<i>ké</i>	<i>wazíir-e</i>
that.one:Y	wool:Y	LINK	grain:PL.Y	LINK	butter:Y-ABS	LINK	minister-GEN

*háalar*            *núćun*                            *phat*    *étimi*.  
 ha'al-ar            n-u-chú-n                            phát    i-t'm-i  
 house-LOC-DAT   CP-3PL.X:I-bring.away-CP    quitting    3PL.Y:II-do-NPRS-3SG.HM

‘winking up at the frog, saying: “Take it!”, he then took the wool and the grain and the butter to the vizir’s house and left them there.’ (Tikkanen 1991, *The Frog as a Bride*: #252)

Since X- and Y-class objects distribute over both types of stems in practice, what factor, then, causes such divergence? Now, I examine the data on Hopper and Thompson’s (J) INDIVIDUATION OF O. The reason why I broach the component (J) here is that the issue I am struggling with is a problem in comparison of stems with the same meanings and argument structures (at least in dictionary senses), and therefore I expect that the motivation of the divergence must be searched on the side of objects, not verb stems. Among the 10 components by Hopper and Thompson, there are two components relating to characteristics of O: (I) and (J). The component (I) AFFECTEDNESS OF O may not be relevant in this issue because the effectivity of each stem in the pair of root  $\sqrt{\text{chú}}$ , such as ‘bring away’, cannot diverge, at least with singular objects.

The following tables are classifications in the number of X-class objects (Table 122) and Y-class objects (Table 123), respectively. And when an object is singular, then I have subcategorized it for whether it has the indefinite singular suffix *-an* or not, which is optionally attached to indefinite singular nouns (§3.3). Simplifying the (J) component, it is expected that a singular object tends to occur in a transitive clause more often than a plural one, and a definite object is preferred for a highly transitive clause more than an indefinite one, so that an I-stem is more required by definite singular objects than indefinite ones and less demanded by plural objects.

Table 122. Distribution on number of X-class overt objects

		<i>chú-</i>		<i>@-chú-</i>		<i>gán-</i>		<i>@-yán-</i>		$\emptyset$ -STEM		I-STEM	
WITH <i>-an</i>	SINGULAR	1		1		0		0		1		1	
WITHOUT <i>-an</i>		14	15	2	3	2	2	16	16	16	17	18	19
PLURAL		1		1		2		6		3		7	

Table 123. Distribution on number of  $\gamma$ -class overt objects

		<i>chú-</i>		<i>@-chú-</i>		<i>gán-</i>		<i>@-yán-</i>		$\emptyset$ -STEM		I-STEM	
WITH <i>-an</i>	SINGULAR	0	12	0	0	4	37	1	4	49	1	4	
WITHOUT <i>-an</i>		12		0		33		3	4	45		3	
PLURAL		1		1		4		0		5		1	

But no particular inclination in the distributions has appeared. This result indicates that neither the plurality nor the formal indefiniteness of objects influences the determination to use the  $\emptyset$ -stem or I-stem of a root.

Furthermore I examine the definiteness of objects in semantics. Definiteness cannot be strictly judged only by formal criteria with *-an*, so I have acknowledged the arguments which have already been introduced in discourse, which are modified by a demonstrative adjective, or which refer to proper referents as definite. Table 124 shows the distribution on definiteness of  $\chi/\gamma$ -class objects that overtly appeared in the corpus. If the definiteness of objects relates to the transitivity of verbs, then it tends to be that indefinite objects would correlate with  $\emptyset$ -stems, while definite objects would co-occur with I-stems.

Table 124. Definiteness of  $\chi/\gamma$ -class overt objects

	<i>chú-</i>	<i>@-chú-</i>	<i>gán-</i>	<i>@-yán-</i>	$\emptyset$ -STEM	I-STEM
INDEFINITE	6	1	15	11	21	12
DEFINITE	22	4	30	13	52	17

Like the examination of individuality, this examination has resulted in no distributive particularity for the definiteness of objects. Definite objects are greater than indefinite objects in every column, and *@-yán-*, in particular, exhibits a tendency contrary to my expectations; that is, the I-stem might prefer definite objects if definiteness is effective for stem derivation.

Considering the circumstances mentioned above, it is concluded that the likelihood of objects would not be relevant to the choice of stem. The only effective conditions are that H-class objects require the personal prefix slot, and that entirely unknown objects, whose overtness is mostly low or zero, demand stems without the slot.

#### 9.5.6. Further possibilities

In addition to the statistical examinations in the preceding section, I discuss this issue with another supposed factor from the point of view of pragmatics. See the



following table:

Table 125. Average distances of X/Y-class overt objects occurring in the same clause (figures in words)

	<i>chú-</i>	<i>@-chú-</i>	<i>gán-</i>	<i>@-yán-</i>	Ø-STEM	I-STEM
DISTANCE BETWEEN OBJECTS AND VERBS	1.05	0.60	0.57	0.26	0.73	0.42

Table 125 represents the average distances between X- and Y-class objects and verbs in the same clause. I have omitted H-class objects because they had shown no divergence for stems and occurred only with I-stems. The numerical values in this table mean the number of words between objects and verbs: e.g., *[khosé] chúca baa* ‘I will get this’ in (324) is scored as zero points versus *[et sé ke phaló ke maltás ke] wazíre háalar núcun* lit. ‘he took to the vizir’s house the wool and the grain and the butter’ in (325) is scored as two points. Both of these two pairs of verbs show the same tendency, in that the farther verbs are from objects, the lesser they are used with the personal prefix slot. Concerning objecthood, it may be that objects will lose their own objecthood, or will diminish the transitivity of verbs to the point of lacking the indexing marker of undergoer, because the relationship between the object and the verb gets weaker the further they are apart.

#### 9.5.7. Transitivity and the likelihood of objects

These examinations find some tendencies of relations between the transitivity of verb stems and the likelihood of object arguments. Here I simplify and arrange the relations as follows:

- H-class objects co-occur with highly transitive stems,
- undetermined objects lower the transitivity of verbs,
- verbs farther from objects are lower in transitivity.

The first relation is suited for the nominal hierarchy shown in Figure 22 as there is a hierarchic typology of the objects of H-class as a nominal class for human referents that should be marked for object status, and a typology of the objects of X/Y-class as nominal classes for non-human referents, including animals and notions that easily function as object while being unmarked. Verb stems with the personal prefix slot are those which are typically transitive verbs using a marking system to agree with an object. However, verb stems without the slot are transitive verbs with respect to

syntactic status, but are not transitive verbs with regard to formal status.

That is why for an object that is unreasonable, even potentially obscure, speakers tend to choose a verb stem of lower transitivity; that is, a stem without the personal prefix slot if a root has a pair of stems with and without the prefix.

Or when an argument that is likely to be an object is not absent in that way, an object distant from a verb shows less influence on the verb, and it is possible that the further away an object appears from a verb, the lower the transitivity of the verb. It may be considered that it is reasonable that an object argument and a predicate should adjoin in every language.

## 9.6. Conclusion

In this chapter I aimed to search for the relationship between transitivity and other characteristics in Burushaski. Therefore, I discussed the following three relations: transitivity and ergativity, (in)transitivity and volitionality, and transitivity and likelihood of objects.

Burushaski shows an accusative alignment system in the personal indexing on the verbal suffix, but shows an ergative alignment system in the case marking of the noun suffix, so there is some split. The factor which decides the ergativity of subject arguments is the transitivity of verbs, and consequently ergative case is quite sensitive to transitivity.

Regarding intransitive verb stems, the personal prefix slot on stems is or is not employed according to the absence of the volitionality of subjects. That is, volitional intransitive stems do not have the prefix and nonvolitional stems take the prefix if there is a choice of stems. What the personal prefix shows is that the subject argument is likely to be both an actor and an undergoer simultaneously, and it means that the predicated action or event includes the middle voice, the nuance between active and passive. In other words, nonvolitional actions are related to lower agenthood of the actors and are less transitive actions than volitional ones. (Furthermore, there are many verb roots that have no choice of intransitive stems, and these are derived for intransitive to either stem with or without the prefix slot on the basis of the following: the intransitive predicate inherently tends to be volitional or nonvolitional, so that the only fixed intransitive stems are rather used without a conflict between the volitionality of subjects and the intransitivity of predicates represented by the absence or presence of the personal prefix.)

Finally, concerning the relation between transitive verb stems with and without the

personal prefix slot, I conclude that the choice of the prefix slot on a verb stem is motivated by the likelihood of an object argument in being indexed there. Human (H-class) nominals are rather agentive in natural circumstances so that they need to be indexed for being an object argument more than both thing (X-class) and concept (Y-class) nominals. The verbs which have obtained the object marking system in that way are more likely to be transitive verbs because they always indicate the object argument overtly. Contrary to that, if an object is less likely, so that it is not reasonable that a verb will index the object, then a verb stem without the personal prefix is employed. But these relations are still tendencies so that we have to verify the nature of verb stems with and without personal prefixes, and then the study will also need some other perspectives for analysis.

Adding to these relations, taking the characteristic of dative undergoer, which differentiates ditransitive from monotransitive, into consideration, I illustrate here all possible patterns of verb stems in Burushaski within the hierarchy in Table 126.

Table 126. The hierarchy of verb stems in Burushaski

+@ INTR	-@ INTR	-@ MONOTR	+@ MONOTR	+@ DITR	properties
	✓	✓	✓	✓	+ volitionality
		✓	✓	✓	+ ergativity
			✓	✓	+ likelihood of O
				✓	+ dative undergoer

In this diagram, the leftmost stem is the one with the lowest transitivity and then, the further right a stem is situated, the higher its transitivity. There is no ditransitive stem without the personal prefix slot, while there are monotransitives without the slot, and so ditransitive verb stems should be considered as more transitive than monotransitive, even formally. And consequently, the number of characteristics written in the rightmost column in the diagram that a verb stem holds is proportional to how transitive the stem is; the characteristics are, that is, the components of transitivity.

Though Hopper and Thompson's components cannot alone arrange the verb stems in Burushaski, supposing the other characteristics discussed so far helps to construct a general hierarchic diagram of the verb stems. But there is furthermore a controversial issue concerning *d*-stems, and stems without a prefix *d*- also, in the derivation of verb stems in Burushaski (§10). Thus, the discussion hereafter is needed to further the broader extent of these considerations, including stem opposition on the prefix.

## D- DERIVATION

In this chapter I will deal with issues on the derivation of Burushaski verb stems with the prefix *d-*. In conclusion, with using the framework of Haspelmath (1987), the functions of the prefix *d-* can be summarized into five principal functions, which are derived through grammaticalization from the one of them, the venitive function. And finally, I will call these five functions “telic” together, since that they have the telic feature in common.

First, I devote §10.1 to preliminaries for discussion. Second, §10.2 deals with the previous studies dealing with the prefix *d-*. And then I will discuss it in §10.3, and finally, give a conclusion in §10.4.

### 10.1. Preliminaries

Here I give information about the template for verbs (§10.1.1), the derivation of verb stems with personal prefixes (§10.1.2), and terminology (§10.1.3), as preliminaries for discussing the derivation with the prefix *d-*.

#### 10.1.1. Template for verbs

As a preliminary to considering *d-* derivation, I show the concrete system of verb stem formation here.

Burushaski has a templatic morphology and the derivation of verb stems can also be explained by means of a template, see Figure 24.

(-4)	(-3)	(-2)	(-1)	0	(+1)	(+2)	(+3)	+4	(+5)
NEG	TEL	PERS	CAUS	ROOT	PL	ASP	PERS	MOD/AUX	PERS/COND

Figure 24. Template for verbs

The framed part is the range of stems. Stem formation slots are [-3: telicity], [-2: person], [-1: causation], [0: root], [+1: plurality (of the absolutive participant)], and [+2: aspect].

Among these, I deal with a stem forming prefix *d-*, in the slot [-3], which may alter the voice or the diectic perspective of a stem. Note that *d-* is attached before the personal prefix in the slot [-2] (§§6.3.2 and 10.1.2), which also appears in discussion in this chapter.

## 10.1.2. @- derivation

Derivation with the personal prefix effectively controls the number of core arguments on stems, and then it is the leading figure in this chapter on changing valency.

Berger (1998a: 117) says “Man kann nach der Verwendung der Präfixtypen zwischen primären und sekundären Verben unterscheiden. Primäre Verben haben entweder gar keine Pron.präfixe oder durchgehend oder nur in einem teil der Formen solche des Typus I. Sekundäre Verben sind durch Präfixe des Typus II und/oder III (mit oder ohne das Präfix -s-, ...), oder durch das *d*-Präfix von primären abgeleitet” with showing the following examples as the “regular types [regulären Typen]”. See Figure 25 which illustrates his account for stem derivation of verbs.

<u>Type-I : intransitive</u> <i>i-gúrcimi</i> ‘he sank’ ↓	<u>Primary</u>	<u>Type-I : transitive</u> <i>i-phúsimi</i> ‘he bound him’ ↓
<u>Type-II with s- : transitive</u> <i>é-s-qurçimi</i> ‘he sank him’ ↓	<u>Secondary</u>	<u>d- without pers.pref. : intransitive</u> <i>du-phúsimi</i> ‘he was bound’ ↓
<u>Type-III with s-</u> <i>ée-s-qurçimi</i> ‘he made him <sub>i</sub> sink him <sub>j</sub> , he sank him <sub>i</sub> for him <sub>j</sub> ’	<u>Caus.-appl.</u>	<u>Type-III</u> <i>ée-pusimi</i> ‘he made him <sub>i</sub> bind him <sub>j</sub> ’

Figure 25. “Regular types” of stem derivation by Berger (1998)

But there is no description of by what reason he is calling them “regular”. Furthermore, the stem \*@-*squrc-* ‘make sink’ from which *ée-s-qurçimi* is formed is not recorded in his vocabulary (Berger 1998c). And as it will be statistically demonstrated in this chapter, \*@-*squrc-* ought not to be realised owing to the typology of verbal roots. So his description on this issue is suspicious unless any example of \*@-*squrc-* is found out from actual speech data.

The larger the personal prefix type is, the higher a stem with the prefix is transitive. And a stem without a personal prefix is considered as the least extended stem straightly reflecting the default valency of the base, while a trivalent base cannot be derived without a personal prefix. Jumping to a conclusion and quite roughly (or even carelessly) illustrating, the relation between bases and stems derived only with the personal prefix may be represented on a tentative chart as follows:

Table 127. Relation between the features of bases and the transitivity of stems

Base		Stem				abb.
Valency	Volitionality	∅	I	II	III	
1	+ ~ -	Intransitive	Intransitive	In/transitive	In/transitive	V <sub>IV</sub>
1	+/-	Intransitive	Transitive	Transitive	Di/transitive	V <sub>1</sub>
2	/	Transitive	Transitive	Transitive	Di/transitive	V <sub>2</sub>
3	/		Ditransitive	Ditransitive	Ditransitive	V <sub>3</sub>

Abbreviation “V<sub>IV</sub>” in Table 127 indicates the variable volitional univalent verbal root, which can be derived to an intransitive stem for non-volitional HX-class subjects with personal prefixes. For the volitionality, it is discussed in §9.4.2.

There are 63 V<sub>IV</sub>, 161 V<sub>1</sub>, 136 V<sub>2</sub>, and only 6 V<sub>3</sub> roots.

### 10.1.3. Terminology for discussion

Verbal derivation (concerning valency changing) in Burushaski is based on three axes: (i) whether *d-* is present or absent at the slot [-3]; (ii) which type of personal prefixes is present at the slot [-2]; (iii) whether *s-* is present or absent at the slot [-1].

I call the group classified by axis (i) SERIES and call the unit of stems derived from the BASE for each series SET which includes roots with or without *d-* prefix. This means that one or two sets can be derived from every root and every set has six possible forms (see Table 128). The term TYPE refers to the variations in (ii). All verb stems, then, are formally classified into 12 combinations as illustrated in the following table.

Table 128. Combinations and abbreviations of verb stems

	(i)	none (non-d-series)				<i>d</i> - (d-series)			
	(iii) \ (ii)	none (type-Ø)	@- (type-I)	@-' (type-II)	@-'' (type-III)	none	@- (type-I)	@-' (type-II)	@-'' (type-III)
root A	none	Ø-stem	I-stem	II-stem	III-stem	d-stem	dI-stem	dII-st.	dIII-st.
	<i>s</i> - (causative)	N/A	N/A	sII-st.	sIII-st.	N/A	N/A	dsII-st.	dsIII-st.
root B	none	Ø-stem	I-stem	II-stem	III-stem	d-stem	dI-stem	dII-st.	dIII-st.
	<i>s</i> - (causative)	N/A	N/A	sII-st.	sIII-st.	N/A	N/A	dsII-st.	dsIII-st.
⋮				⋮				⋮	

Sometimes I categorize verbs (which abstract just one or two features), such as “d-series stems” include all six combinations with *d*- prefix mapped at the right side on Table 128: i.e. *d*-, *dI*-, *dII*-, *dIII*- *dsII*-, and *dsIII*-stems; and “s-causative stems” consist of the four combinations which bring *s*- prefix arranged at the bottom line on Table 128: i.e. *sII*-, *sIII*-, *dsII*-, and *dsIII*-stems.

All the 315 verb roots in Berger (1998c)<sup>†50</sup> have one of the above stems; 172 of them have only the non-d-series set, 86 roots have only the d-series one, and the other 57 roots have both non-d- and d-series of stem sets. The total number of sets amounts to 372. There are 143 d-series sets (38%) out of 372 sets, and 57 of them have the non-d-series set also, as illustrated in Figure 26.

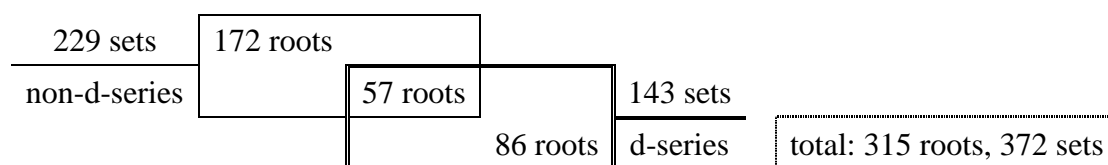


Figure 26. Number of sets and roots in each series of verbs

## 10.2. Previous studies of *d*- derivation

In the following, I discuss on the derivation by the prefix *d*- which is the outermost derivational element in the verbal stem formation of Burushaski.

<sup>†50</sup> Berger (1998c) actually includes 312 verb roots, but there are some questionable points in his classification between roots and stems. Therefore I sorted out and arranged them by considering the total derivational system with 315 roots.

Concerning the *d*- prefix, several studies deal with it and describe it in many ways. The meaning or function of *d*- is still controversial. Etymologically *d*- has been developed from a verb *jú*- ‘come’, see §6.3.1.2. Here I pick up the core description on *d*- prefix in several studies and see how those studies have treated this complicated prefix (underlines mine).

- As regards *d*\*- generally, an examination of all known examples has failed to throw any light on its meaning or function. It cannot originally have been without significance, but whether it still possesses any must remain a problem for future enquirers. (Lorimer 1935a: 226)
- Глаголы с основообразующим превербом *d*- присоединяют префиксальные показатели после *d*- перед основой. (Климов и Эдельман 1970: 63)
- ... , hat das *d*-Präfix in der heutigen Sprache keine bestimmte Funktion mehr; die wenigen Paare, in denen sich eine *d*-lose Form von einer *d*-Form durch die Bedeutung unterscheidet, ... lassen synchronisch keinen gemeinsamen Gesichtspunkt mehr erkennen. (Berger 1974: 32; WB)
- ... , at the most general level, to distinguish process/state/result-oriented verbal conceptions from actor-oriented ones. (Bashir 1985: 19)
- The *d*- prefix, however, cannot be considered to be a passive marker, and its status in the language is less than obvious, as we now observe. (Morin and Tiffou 1988: 504; WB)
- The function of the prefix is not clear. It may well be an aspectual one, indicating that an element affected by the verbal action is being modified. (Tiffou 1993: 15)
- Zu primären Transitiva bildet das *d*-Präfix, immer ohne Pron.präfixe, reguläre Intransitiva ... . Wohl als Folge dieser intr. Funktion kommt das *d*-Präfix mit primären Transitiva nur vereinzelt vor ... . Etwa zwanzig Verben kommen in Paaren mit und ohne *d*-Präfix vor, womit eine geringere oder keine Verschiedenheit in der Bedeutung verbunden ist ... . Die in diesen Paaren durch das *d*-Präfix bewirkten Bedeutungsveränderungen lassen synchronisch gesehen kaum noch einen gemeinsamen Gesichtspunkt erkennen. Bei allen anderen *d*-Verben, denen keine *d*-lose variante zur Seite steht, ist *d*- ein bedeutungsloser, an bestimmte Verbalstämme gebundener Zusatz ... . (Berger 1998a: 110)



- More d-verbs than non-d verbs have a stative (describing a state) or passive meaning. (Grune 1998: 13; WB)
- Le bourouchaski connaît un préfixe verbal en *d-* qui permet le plus souvent de dériver un intransitif à partir d'un transitif. D'après certaines analyses, la fonction fondamentale de ce préverbe serait d'évacuer du procès toute notion d'agence. (Tiffou 1999: 171; WB)
- The etymological meaning of the verbal prefix *d-* '(coming to be) right here' underlies the abstract interpretation 'transition to (and remaining in) a state', which has also led to the denominative function. (Tikkanen 1999: 298)
- Les développements sémantiques des verbes en *d-* ont entraîné des fonctions qui ont été étudiées dans diverses rubriques ; l'une était consacrée aux catégories aspectuelles, telles que le parfait, le résultatif ou l'ingressif ; l'autre, aux catégories de diathèse, telles que la voie moyenne, le passif ou l'anticausatif ; l'autre, aux catégories de genre d'action, telles que la télélicité ; la dernière, à des catégories pragmatiques, tel que le point de vue. Néanmoins le préfixe *d-* ne s'accommode pas simplement d'une seule de ces catégories. (Bashir 2004: 62)
- It is not clear so far as to what the semantic or morphological status of the *d*-prefix is. It could possibly be a remnant of a historically important morphological unit which was perhaps lost in other verbs. (Munshi 2006: 196–97)
- El carácter aglutinativo del B[urushaski] se manifiesta sobre todo en la parcela verbal, p. ej. *a-ti-mi-s-man-u-wá-i-a* «¿no nos ha parido él?», cuyo análisis morfológico es el siguiente: ... -*tí-* marca de proceso; (de la Fuente 2006: 558)
- The semantics of the *d*-prefix in these pairs range from a clear cislocative meaning, to vaguely (de-)transitivizing functions, to actor/subject focus, to various idiosyncratic, sometimes opaque semantic nuances. (Anderson 2007: 1249)

Logimer, Климов и Эдельман, Berger, and Munshi abandon the solution of the meaning or function of the *d-* prefix or preverb, and the other studies each enunciate its meanings or functions in their own ways: process/state/result-oriented (Bashir 1985), not just only passive (Morin and Tiffou 1988), aspectual one denoting the change of

state (Tiffou 1993), stative or passive (Grune 1998), evacuating of the whole process of agent notion (Tiffou 1999), ‘coming to be right here’ and ‘transition to a state’ (Tikkanen 1999), perfect, resultative, ingressive, middle, passive, anticausative, telic, or the point of view (Bashir 2004), process (de la Fuente 2006), and cislocative, (de-)transitivizing, and actor/subject focus (Anderson 2007).

There are some common opinions among the previous studies, that is, passive, transition to a state, venitive (or cislocative), but there is a conflict between Bashir’s (1985) process/state/result-oriented account and Anderson’s (2007) actor/subject focus one. It seems that Anderson’s (de-)transitivizing function is in itself conflicting, or does he say *d-* prefix will change intransitive into transitive as well as transitive into intransitive?

The studies of Bashir (1985, 2004) are concentrated to the *d-* prefix and minutely analysing its functions. My conclusion will be close to those of Bashir but will differ in some points. Bashir (2004) finally considers that there are seven functions of the *d-* prefix (but a different set of five functions is used in the account of grammaticalization), I think, however, there remains some misjudgement between the function of the *d-* prefix and the meaning of stems with the prefix, which is carried in by their roots.

### 10.3. Discussion

In this section I will discuss and demonstrate that the function of the *d-* prefix consists of resultative (§10.3.1), venitive, fientive, stative (these three in §10.3.2), and anticausative (§10.3.3), and that they may be reduced to venitive. Finally I will point out that there are some pairs where the function of the *d-* prefix is not clear but a strange asymmetric distribution is observed (§10.3.4).

#### 10.3.1. Resultative out of transitive

15 pairs of non-*d-* and *d-*series out of 57 can be grouped by a function of *d-*, that is, resultativization.

Table 129. *d-*-less transitive and *d-*-prefixed resultative verbs

root	non- <i>d-</i> stem	<i>d-</i> stem
<i>báalt</i>	<i>báalt-</i> ‘wash’ / @ - <i>yáalt-</i>	<i>du-wáalt-</i> ‘be washed; become poor, fade’
<i>čhayált</i>	<i>čhayált-</i> ‘clamp; tan with a / @ - <i>čhávalt-</i> cudgel; castrate’	<i>du-čhávalt-</i> ‘be clamped’

root	non-d-stem	d-stem
<i>gaṭámur</i>	<i>gaṭámur-</i> / @- <i>yáṭamur-</i> ‘wash, full (tanned hide), soften’	<i>du-yáṭamur-</i> ‘become soft’
<i>giy</i>	<i>gíy-</i> ‘put on; dump; knock down; toss’	<i>di-gía-</i> (PL) ‘be ground down, hang down’
<i>gurgín</i>	<i>gurgín-</i> / @- <i>úrgin-</i> ‘grind by a round stone on a flat stone, pulverise’	<i>du-úrgin-</i> ‘be ground’
<i>yas</i>	@- <i>yas-</i> ‘make laugh’	<i>d-@-yas-</i> ‘laugh’
<i>hurúṭ</i>	@- <i>uruṭ-</i> ‘seat; lie down; keep after; raise’	<i>d-@-uruṭ-</i> ‘take residence; be settled; like’
<i>jáli</i>	<i>jáli-/@-jáli-</i> ‘scatter, knock down; sweep up together’	<i>du-jáli-</i> ‘spread, be extended’
<i>ltan</i>	<i>tan’/@-ltán-</i> ‘crush in a mortar; forge by hammering’	<i>du-ltán-</i> ‘be crushed’
<i>ltask</i>	<i>task’/@-tásk-</i> ‘pull, draw (bow)’	<i>du-tásk-</i> ‘be elastic, stretch’
<i>máltár</i>	<i>máltár-</i> / @- <i>máltar-</i> ‘daub, wind around’	<i>du-máltar-</i> ‘be daubed’
<i>philán</i>	@- <i>philan-</i> ‘deceive, fabricate’	<i>d-@-philan-</i> ‘calm down; be deceived’ (NG)
<i>phus</i>	<i>pus(ú)’</i> / @- <i>phús-</i> ‘tie up, tuck up, put (shinguards)’	<i>du-phús-</i> ‘be tied; stay at home without working’
<i>qhulán</i>	<i>qhulán-</i> ‘knead’	<i>du-qhúlan-</i> ‘be kneaded’
<i>wáar</i>	<i>wáar-</i> ‘cover with, use as a lid’	<i>du-wáar-</i> ‘be used as a lid’

From the point of view of non-d-series transitives, d-prefixed intransitive stems in Table 129 have lost the agent argument through decrease of their valency. These intransitive verbs cannot be accompanied by an actor, which is expressed in the state of the agent argument in corresponding non-d-series transitives, and of course then these intransitive verbs with *d-* are resultative or anticausative, not passive.<sup>†51</sup> All of these

<sup>†51</sup> According to Hapelmath’s definition that “In the passive, the actor is not in the subject position, but it can often be expressed in an actor phrase, and in any case the existence of an actor is implied in a passive clause. In the anticausative, however, the actor is completely eliminated, not only syntactically, but also semantically, and the process is presented as going on spontaneously.” (Hapelmath 1987: 7). And the difference between anticausative and resultative are discussed soon.

intransitive verbs have a spontaneous characteristic, so that the meaning of *d-@'yas-* ‘laugh (spontaneously)’ is not the same as a *d-*-less intransitive cognate stem *yas'* ‘laugh (intentionally)’ as I have mentioned in §9.4. These *d-*-intransitives are not even anticausative because they indicate the change of the state of subject arguments effected with specific means. Haspelmath (1987: 15) says that for anticausative ‘all actions are excluded which imply specific instruments or methods, like *bite*, *cut*, *dig*, *grind*, *sow*, *thrash*, *build*, *prepre*, *paint*, *operate*, *revise* etc.’ with three excluding examples of *bite*, *cut*, and *wash* (*ibid.*; underline mine). Some of Burushaski *d-*-prefix intransitives in Table 129 are derived from actions implying specific change of state, like *grind* and *wash*, which Haspelmath has mentioned, even though some of the others are recorded with losing the implication of specific instruments as with *du-ltán-* ‘be crushed’ vs. *tan'/@-ltán-* ‘crush in a mortar’, and *du-úrgin-* ‘be ground’ vs. *gurgín-/@-úrgin-* ‘grind by a round stone on a flat stone’.

Besides the 15 pairs, the following pairs may be explained by this resultative reading:

Table 130. Two pairs possibly with resultative interpretation

root	non-d-stem	d-stem
<i>rgin</i>	<i>@-rgín-</i> ‘enliven; stir; beat’	<i>d-ú-rgin-</i> ‘cluster; come to blows; deliberate’
<i>sal</i>	<i>@'sal-</i> ‘show’	<i>d-@'sal-</i> ‘solve’

As for the former pair in Table 130, there is the idiomaticity caused by the third person H/X-class plural personal prefix *u-* in the *d-*-series part, but when reading the idiomaticity as something like reciprocal or collective meaning, the *d-*-stem *d-ú-rgin-* ‘cluster; come to blows’ may be regarded as a derivative of *@'rgin-* ‘stir; beat’.

The latter ditransitive-transitive pair seems parallel to transitive-intransitive pairs in Table 129.

In this way, a function of *d-* is that it derives resultative bases from  $V_2$  roots.

### 10.3.2. Venitive, fientive, and stative

There are a few pairs of andative and venitive verbs with and without the *d-* prefix, respectively, see Table 131.

Table 131. Pairs of d-less andative and d-prefixed venitive verbs

root	non-d-stem	d-stem
<i>mas</i>	@'mas- 'hand over, send in'	d-@'mas- 'hand over hither'
<i>r</i>	@'r- 'send (out); make go, remove'	d-@'r- 'send hither'

These two verb pairs obviously show a semantic difference in terms of deixis where non-d-stems imply an andative (or neutral) direction while d-stems hold a venitive meaning 'hither, to here'. This function is deeply related to the meaning of the origin of the *d*- prefix, that is, a verb *jú*- 'come' and therefore this can be regarded as the most primitive function.

And now, venitive nuance might be understood from the stems which are shown in Table 132, too:

Table 132. Other d-verbs possible to be considered as venitive

root	non-d-stem	d-stem
<i>birán</i>	@'biran- 'fill up'	d-@'spiran- 'fill up (to the rim), level off (hole)'
<i>gáarc</i>	gáarc- 'run, gallop; run away; be arbitrated'	di-áarc- 'rain; (hives) be caused'
<i>úl</i>	@'l- 'thread, insert'	d-@'ul- 'put (thread) through'

Water level is COMING up to a rim while pouring into a vessel, rain COMES down from the sky, and the head of a thread COMES out from the hole of a needle when a threading action has been achieved.<sup>†52</sup> In these cases the venitive meaning is weakened and it is

<sup>†52</sup> Also in Japanese, what meanings a venitive stem *di-áarc-* indicates can be expressed with a verbal complex including a directional marker *k-* 'come', while another marker *ik-* 'go' cannot be employed, see the examples (C) and (D) which are contrastive sentence pairs of Japanese and Burushaski.

(C) J: *ame=ga fut-te k-ita* / \**fut-te it-ta*.  
rain=NOM fall-CONV come-PFV / \*fall-CONV go-PFV

EB: (*harált*) *diáarcilá*.  
*harált-Ø d-gáarc+b'il-Ø*  
rain-ABS TEL-run+COP-3SG.Y-PRS

'It has rained.'

gradually changing into another function, that is the fientive function which indicates ‘come into a state’ as verbs in Table 133 below.

Table 133. Fientive verb stems

root	non-d-stem	d-stem
<i>chí</i>	<i>chí-</i> ‘descend; sit, crouch down; (fire) visit’	<i>di-chí-</i> ‘(raincloud) come together to form, occur’
<i>man</i>	<i>man-’</i> ‘be; become; occur, <i>/@-mán-</i> appear; exist’	<i>du-mán-</i> ‘be born, occur; be made; <i>/d-@-’man-</i> solidify; become frozen’

This fientive function of the *d-* prefix are seen with the pairs of an adjective and a fientive verb such as *du-čhájur-/d-@-’čaqur-* ‘become cold, be cold’ from *čhayúr-um* ‘cold’ (*-um* is an adjectiviser). Like this deadjectivised verb, most fientive verbs in Burushaski have also developed the stative meanings of ‘be in a state’, not including the nuance of the transition into a state, see Table 134. In the preceding table, *du-mán-/d-@-’man-* has both fientive meanings ‘occur; solidify; become frozen’ and stative meanings ‘be born; be made’.

Table 134. Secondary stative verb stems

root	non-d-stem	d-stem
<i>huljá</i>	<i>huljá-</i> ‘be complete, grow to the full, ripen; ride on’	<i>d-úlja-</i> ‘be full, have enough; be <i>/du-súlja-</i> disgusted’
<i>man</i>	<i>man-’</i> ‘be; become; occur, <i>/@-mán-</i> appear; exist’	<i>du-mán-</i> ‘be born, occur; be made; <i>/d-@-’man-</i> solidify; become frozen’

The following examples are the sentence of a d-less stem, (326a), and a d-stem, (326b), of the root  $\sqrt{\text{man}}$ .

(D) J: (*wataši=wa*) *jimmašin=ga de-te k-ita /\*de-te it-ta.*  
I=TOP hives=NOM get.out-CONV come-PFV /\*get.out-CONV go-PFV

EB: *ačí doş diáarcien.* (Berger 1998c: 122)  
*a-cí-e dóş-Ø d-gáarc+b’ien-Ø*  
1SG:I-against-ESS hives-ABS TEL-run+COP-3PL.X-PRS

‘I have come out in hives. [lit. Hives has come out on me.]’

- (326) a. *khok*                    *uskó*    *maními*.  
 khók-Ø                    uskó    man'-m-i  
 those.ones:Y-ABS    three:Y    become-NPRS-3PL.Y

‘These [solutions] became three.’ (*čhúmoe minás*: #149)

- b. *ité*    *dísulo*                    *makáan*    *dumánimi*.  
 ité    diš'-ul-e                    makáan-Ø    d-man'-m-i  
 that:Y    ground-LOC-ESS    house-ABS    TEL-become-NPRS-3SG.Y

‘in that place a house was built.’ (Tikkanen 1991, *The Frog as a Bride*: #489)

These stative verbs are secondary (derived with *d-*) ones but their meanings are by no means inferior to ones of primary (non-*d*-derived) statives, like @-*yan-* ‘sleep, fall asleep’ and @-*wár-* ‘be tired’.

The *d*-prefixed stems dealt with in this section show no valency gap with non-*d*-series stems, but semantically they show a transition from venitive to fientive and stative and then it will stretch to resultative while decreasing valency, see §10.3.1.

### 10.3.3. Anticausative

The preceding two sections dealt with stem pairs with the same type of personal prefix, and here in this section I discuss pairs of non-*d*-series type-I transitive stems and *d*-series type-Ø intransitive stems. The verb roots which show this pattern of stem derivation seem to behave in an identical way.

There are 12 pairs of cognate transitive Ø-I-stem and intransitive *d*-Ø-stem out of 315 roots.

Table 135. Transitive Ø-I-stem and intransitive *d*-Ø-stem verbs

root	non- <i>d</i> -stem	<i>d</i> -stem
chil	@- <i>il-</i> ‘macerate (TR), immerse’	<i>di-il-/di-sil-</i> ‘get wet, macerate /di-chil- (INTR)’
garán	@- <i>yáran-</i> ‘trim (small livestock); exploit, decieve’	<i>du-yáran-</i> ‘be trimmed’
khačí	@- <i>kháči-</i> ‘confine’	<i>du-kháči-</i> ‘be confined’
ltayáy	@- <i>ltáyay-</i> ‘plaster (wall) with mud, smear’	<i>du-ltáyay-</i> ‘be plastered with mud’

root	non-d-stem	d-stem
moq	@-móq- ‘pull out, pluck off’	du-móq- ‘fall out, become bald’
murmúy	@-múrmuy- ‘polish, rasp’	du-múrmuy- ‘be sanded down, be polished, be refined’
mut	@-mút- ‘break into pieces, crush and put in’	du-mút- ‘be put in as crushing’
phalt	@-phált- ‘break, smash, wrench open, dig, blow away’	du-phált- ‘burst, (gun) be fired, rupture’
phaṭár	@-phaṭar- ‘skin, peel’	du-phaṭar- ‘come off, molt’
qhis	@-qhís- ‘tear up’	di-qhís- ‘tear (INTR), be torn’
uśá	@-úša- ‘bring up, take care of’	du-úša- ‘be brought up’
yar	@-yár- ‘graze (TR); monitor, watch’	du-yár- ‘graze (INTR)’

The detransitive process between the pairs in Table 135 looks like the resultative one shown in Table 129. But it seems that the relation between transitive Ø-I-stems vs. intransitive d-Ø-stems is somewhat anticausative due to the shortage, but not the absence, of the specific semantic features.

The pair of @-qhís- ‘tear up’ and di-qhís- ‘tear, be torn’ has another intransitive stem without *d-* prefix, *qis-* ‘tear up’, and the three stems show a quite significant semantic relation as Figure 27 illustrates.

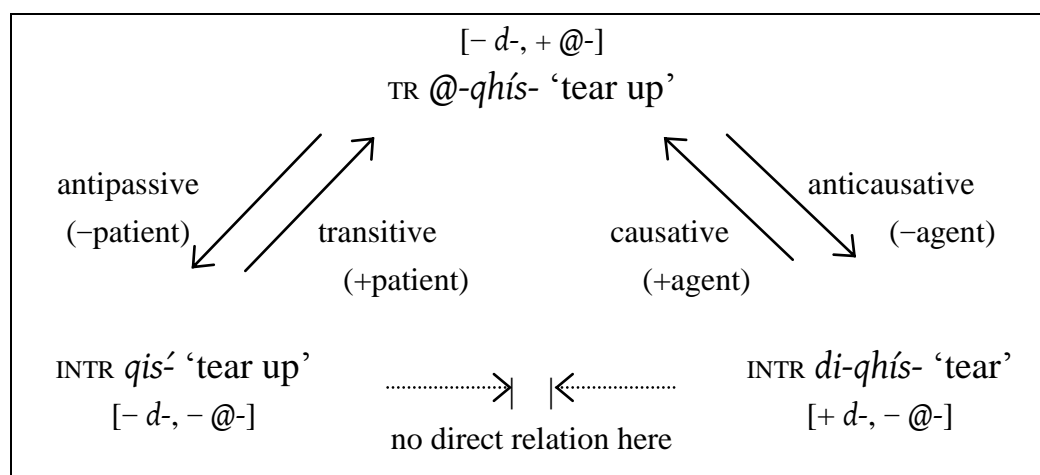


Figure 27. Antipassive and anticausative

Not all the 12 pairs have the same set of stems as this root  $\sqrt{qhis}$  have, however all of their stems appear in the system according to this relationship.



10.3.4. Pairs with and without *d-* in the same meaning

There are 9 pairs of stems with or without *d-* being annotated with exactly or almost the same meaning in Berger (1998c).<sup>†53</sup> When the described meanings of stems are exactly the same, then I represent them with “id.” in Table 136.

Table 136. Pairs of stems with and without *d-* prefix in the same meaning

root	non-d-stem	d-stem
gir	@- <i>skir-</i> ‘dye’	<i>d-</i> @- <i>skir-</i> id.
γul	<i>γulú-</i> ‘be destroyed by fire, be burnt to ashes, get frostbitten’ / <i>@-γúl-</i>	<i>du-γúl-</i> ‘be destroyed by fire’
γuṭin	@- <i>γuṭin-</i> ‘empty out by tilting gradually’	<i>d-</i> @- <i>γuṭin-</i> id.
huškin	<i>huškin-</i> ‘(only a little water) be drained’	<i>du-úš(ki)kin-</i> ‘(water) be drained, recede, (man) lose power’
huy	@- <i>stuy-</i> ‘melt’ / <i>@-scuy-</i>	<i>d-</i> @- <i>uy-</i> id. / <i>d-</i> @- <i>scuy-</i>
qhar	<i>qhár-</i> ‘(skin, limb) crack by drying’	<i>du-qhár-</i> ‘(timber) crack’
	@- <i>qhár-</i> ‘break (timber, stone, ceramic ware, walnut); saw; cut up’	<i>d-</i> @- <i>q(h)ar-</i> ‘chop (timber); cut down (tree); part (hair with comb)’
sók	<i>sók-</i> ‘descend, get off, dismount’	<i>du-sók-</i> id.
sú	<i>sú-</i> ‘bring, fetch; mention, state’	<i>du-sú-</i> id. / <i>d-</i> @- <i>c-</i>

The difference between stems in a pair is unclear. In (327), the pair of *sú-* and *du-sú-* ‘bring’ show free alternation in consecutive sentences.

<sup>†53</sup> There is one more case for this definition in the Nager dialect: @-*doon-* ‘make open’ vs. *dóon-* ‘open’. But it is regarded as an irregular derivation with a reanalysed root and should be ignored in this discussion.

- (327) a. *moóq numán déeyasase káa, iné*  
*moóq n-man d-ĩ-yas'-as-e káaṭ iné*  
 grinning CP-become TEL-3SG.X:III-laugh-INF-GEN together that:H  
*baadšáa yániṣe mumóos súmo.*  
*baadšáa-e yéniṣ-e mu-moos'-∅ sú-m-o*  
 king-GEN queen-ERG 3SG.HF:I-anger-ABS bring-NPRS-3SG.HF
- ‘Having grinned, the king’s queen got angry.’ (*čhúmoe minás*: #23)
- b. *baadšáa jamaaáte yániṣe mumóos*  
*baadšáa-e jamaaát-e yéniṣ-e mu-moos'-∅*  
 king-GEN spouse-GEN queen-ERG 3SG.HF:I-anger-ABS
- dusúninin* “*khos, je ayákal bes*  
*d-sú-n-n-n khós-∅ jé a-yakál bés*  
 TEL:CP-bring-CP-CP-CP this.one:X-ABS I 1SG:I-direction why  
*déeyasibi’?*”  
*d-ĩ-yas+b'-i-∅*  
 TEL-3SG.X:III-laugh+COP-3SG.X-PRS
- ‘The king’s queen got angry and said “Why has this fish laugh at me?” ’  
 (*čhúmoe minás*: #24)

I have tried to elicit examples of some of these verbs from native speakers but they have unanimously told me that there is no gap between these stems with and without *d-*. There are few examples of these verbs in recorded texts, therefore it is a task for the future.

There is a strange asymmetry with a pair in this group, so I point out the fact as a considerable peculiarity here. It is possible that *sók-* and *du-sók-* ‘descend’ are both used interchangeably in affirmative sentences while only *a-tú-sok-* (the negative form of *du-sók-*) is used in negative sentences and *\*a-sók-/oó-sok-/\*aú-sók-* (possible negative forms of *sók-*) are never observed.

#### 10.4. Conclusion: Functions of *d-* prefix

Some other roots have both the non-*d*-base and the *d*-base but the semantic content of these stems is hard to compare because of the complexity of derivational patterns with the personal prefix. For example, I do not know how to compare *phirkán-* ‘be

unstable (like a shaking stone)' with *d-@-pirkan-* 'stumble' given that there is no other stem cognate with them.

There are 86 roots with only the *d*-set besides, and they may have the same or similar meanings with the meanings of the verbs I have dealt with in the preceding sections, but clearly they are not suitable for discussing the meaning or function of the *d*- prefix as a derivational strategy.

If one considers the meanings of *d*-stems more closely, then some other functions may be discovered. But for now, I have demonstrated the meaning or the function of *d*- as a sequential, venitive => fientive => stative => resultative => anticausative, through considerations based on Berger's (1998c) vocabulary. Out of the 57 pairs, there are 15 or 17 pairs with the resultative function of *d*-, 5 with venitive, 2 with fientive (and many adjective roots are verbalised by the fientive function of *d*-), 2 with stative, 12 with anticausative. For the rest pairs I could not reveal the function in this discussion.

Venitive is realised with verbs denoting or including the transfer, fientive function ('coming to a state') is performed with verbs of occurrence, and when fientive function loses the meaning of change because it is already implied by a verb root, then the root takes the *d*- prefix for stative nuance ('having come to and remaining in a state').  $V_2$  roots tend to realise resultative function of *d*-, while it appears that anticausative *d*-stems are derived from  $V_1$  roots (both imply 'coming or having come to a state spontaneously'). The resultative function causes detransitivisation or valency decreasing and then  $V_2$  roots become inactive  $V_1$  bases by taking the *d*- prefix as well as the anticausative function by *d*- which alters active  $V_1$  into inactive  $V_1$ , as with  $\sqrt{qhar}$ . The verbs prefixed *d*- in these functions basically do not have the type-I stem because the subject of their intransitive stems is always nonvolitional, so that they look like simple (active)  $V_1$  at first glance, but they cannot be derived into a ditransitive stem (most of them have only the type- $\emptyset$  intransitive stem and the others also have the type-II transitive stem). As for details of the classification of univalent verb bases, I will discuss this in the next section. All of these functions include a goal point of action, namely a state, a result, or a location, and then therefore they all share TELIC characteristics.

As for typological study, Lichtenberg (1991) surveys patterns of the semantic change in grammaticalisation of 'come', 'go', and 'return' forms. He gives a diagram, Figure 28, as the conclusion of the patterns of grammaticalised 'come':

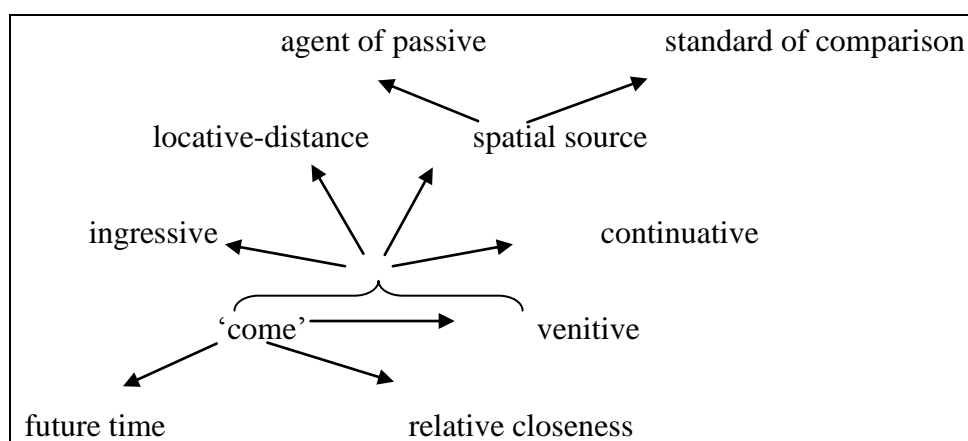


Figure 28. Grammaticalizations of COME forms (Lichtenberg 1991: 490)

Two developed meanings in his study, venitive and ingressive, are detected in the Burushaski *d-* prefix. That is to say, venitive meaning is still found in a few stems on the one hand, and ingressive (fientive in the Haspelmath's terminology) meaning has been developed further as focusing on the resulting state to stative, resultative, and anticausative on the other.<sup>†54</sup>

And thus, among the functions in previous studies, passive function is not striking and rather it should be understood as anticausative or resultative, and actor/subject focus and transitivising functions are not suitable for *d-* prefix. With respect to aspect, or aktionsart, *d-* adds telicity for verb bases although it may be not the core function but a secondary effect.

<sup>†54</sup> *n-* prefix for the conjunctive participle in the same slot as *d-* (§6.3.1.1) is also explained within a cross-linguistic typology of grammaticalised 'go' forms by Lichtenberg; that is, a grammaticalised 'go' form can be used as a sequencer in the sense that "it highlights the fact that the event of its own clause takes place after a prior extended event" (Lichtenberg 1991: 492).

## DEFINITENESS AND SPECIFICITY

Burushaski has two curious suffixes, *-an* and *-ik*, designating number, possibly with some nuance. These suffixes appear in a different position to the other plural number suffixes; see Figure 29 the template for nouns.

(-1)	0	(+1)	(+2)	(+3)	(+4)	+5
PERSON	BASE	PL	NUMBER	OBLIQUE	POSITION	CASE

Figure 29. Template for nouns

Plural suffixes are attached at the  $[+1]^N$  slot inside stems, and it is possible for these suffixes to take the accent of the word, but the number suffixes in question are put at the  $[+2]^N$  slot outside stems, which never take an accent.

The suffixes are not always attached in the same situation and they seem to indicate not only number but also something on another parameter concerning definiteness or specificity. In this chapter I will discuss the suffixes first (§§11.1 – 11.3), and then certain syntactic phenomena related to definiteness and specificity in Burushaski (§11.4).

### 11.1. Previous studies on the suffixes at $[+2]^N$ slot

Lorimer (1935–38) and Berger (1998) mention that *-an* functions as an equivalent of an indefinite particle in European languages or a partitive marker functioning as a quantifier:

- In general it is used to isolate a single unit, laying stress on its individuality. It corresponds in force to the English “indefinite article.” Its use is not obligatory. (Lorimer 1935a: 47)
- В роли показателя неопределенности имени существительного, стоящего в единственном числе, употребляется суффикс *-an*. (Климоб и Эдельман 1970: 38)
- *-an* gleicht in der Verwendung weitgehend dem unbestimmten Artikel der europäischen Sprachen, doch ist die zugrundeliegende Vorstellung mehr eine partitive als eine zählende. (Berger 1998a: 39)

- The indefinite is formed by suffixing *-en* to h nouns and *-an* to xy nouns. (Grune 1998: 4; WB)
- Le bourouchaski dispose d'une marque de singulier correspondant à l'article "un" du français: *-en* pour les noms h et *-an* pour les noms xy. (Tiffou 1999: 159; WB)

Scholars have also described that *-ik* serves the function of an indefinite plural article or a plural partitive marker.

- The suffix *-ik* is added to plural forms of nouns or noun-equivalents, or to forms not specifically plural but having a plural significance. ... When used with nouns in the plural it seems to have the effect of representing a number of individuals as an entity i.e. *a collection* or *group*. (Lorimer 1935a: 50)
- Если имя существительное стоит в форме множественного числа, то в качестве показателя неопределенности выступает суффикс *-ik*. (Климоб и Эдельман 1970: 38)
- Die Funktion des *ik*-Suffixes besteht darin, aus der Menge der vorhandenen bzw. in rede stehenden Personen oder Gegenstände eine begrenzte Anzahl herauszuheben. Es entspricht damit im wesentlichen dem partitiveb Pl. in d. *Kinder* gegenüber *die Kinder*, franz. *des enfants* gegenüber *les enfants*, doch wird im Bur. dabei mehr als in den westlichen Sprachen anschaulich die damit verbundene Besonderheit, Bestimmtheit erlebt ... (Berger 1998a: 39)
- The group plural (also called 'double plural') is formed by adding *-ek* to the singular or plural of the word. (Grune 1998: 4; WB)
- Outre un morphème *-ek* à valeur de pluriel indéterminée ou de partitif, que je n'ai pu moi-même relever, il existe environ une trentaine de suffixes dont l'usage est la plupart du temps impédicible. (Tiffou 1999: 160; WB)
- The plural article is *-ik*; it follows the plural suffix. The corresponding indefinite article used in the singular is *-an* (Anderson 2002: 1235)
- When the NP is not specified, a suffix for Indefinite Article may be attached to the noun stem. This is *-an* 'a/any' for singular and *-ik* for plural nouns. (Munshi 2006: 122)

- Se diferencian cuatro números: singular, indefinido, grupal y plural, p. ej. *hayor* ‘caballo’, *hayor-en* ‘algunos caballos’, *hayor-ek* ‘un grupo de caballos’ y *hayor-a* ‘caballos’ respectivamente. (de la Fuente 2006: 557)

As for *-an*, it is commonly called an indefinite marker, but some scholars think *-ik* is partitive or a group plural marker whereas the others regard it also as indefinite.

All agree that both *-an* for singular and *-ik* for plural are not obligatorily employed to express indefiniteness.

### 11.2. Preliminaries

There are many articles and definitions on definiteness, specificity, and the like. In this chapter I use these terms under the following definitions.

In the case of definiteness, Givón (1978: 296) says “The notions ‘definite’ and ‘indefinite,’ so far as referential nominals are concerned, are used here strictly in their discourse-pragmatic sense, i.e. ‘assumed by the speaker to be uniquely identifiable to the hearer’ vs. ‘not so assumed,’ respectively.”

And concerning specificity, Kagan (2006) summarizes the two approaches that have been advocated in previous studies, i.e. semantic and pragmatic approaches. The former is so-called scopal specificity, and the latter is termed speaker-identifiability now. She sums up that under the latter pragmatic approach “the crucial component of specificity is identifiability to the speaker. Thus, the referent of a specific NP is identifiable to the speaker, whereas the referent of a non-specific NP is not.” (Kagan 2006: 82)

With these understandings, definiteness and specificity can be described within a single scale of identifiability as von Heusinger (2002) represented on the following chart (328):

(328) The “identifiability” criteria for definiteness and specificity (von Heusinger 2002: 249)

<i>identified by</i>	definite (+ specific)	indefinite specific	indefinite non-specific
speaker	+	+	–
hearer	+	–	–

Besides these notions, referentiality of nominals can affect or influence morphosyntax. Here I use the term referentiality in the sense of Givón (1973), that is, in

other words, existential quantification (also in Givón 1973). Riley (2007) says that Givón's (1973) referentiality is the same as his semantic individuality (Riley 2007: 848–49). If this is the case, it can be considered identical to the specificity which is semantically defined with respect to relative quantifier scope and is called scopal specificity (as in Ioup 1977 and Farkas 2002), but actually referentiality is understood as a pragmatic parameter whereas scopal specificity is semantic and therefore there is some gap in the categorical extension between scope distinction and referentiality (Lyons 1999: 172–78).

If a speaker refers to an entity believing in the existence of the individual referent which s/he wants to refer to, then the referred entity is referential. Referential entities are the objects which can be identified in the mental space of each participant in conversation. On the other, any referent of non-referential expression will be neither identified nor specific. Referentially identified nominals can be substituted with pronouns later.

Now von Heusinger's (2002) chart, (328), can be expanded as follows in (329):

(329) The identifiability and referentiality criteria for definiteness and specificity

<i>identified</i> <i>by</i>	definite	indefinite	indefinite	indefinite
	specific	specific	non-specific	non-specific
	referential	referential	referential	non-referential
speaker	+	+	–	–
hearer	+	–	–	–
<i>reference</i> <sup>†55</sup>	de re	de re	de re	de dicto

### 11.3. Definiteness or specificity

At first, I will describe the functions of the two suffixes at [+2]<sup>N</sup> slot, *-an* and *-ik*, which mark the number of referents and also denote that the referents are indefinite or nonspecific.

#### 11.3.1. Singular suffix *-an*

Previous studies say the singular suffix *-an* also shows indefiniteness. If it is an indefinite marker, then it should not co-occur with any of the demonstrative adjectives,

<sup>†55</sup> For referentiality, “de re” means ‘taking the thing of reference in consideration’; “de dicto” means ‘taking the utterance in consideration, without having a particular referent in mind’.



which indicate definiteness.<sup>†56</sup>

Table 137. Correlation between demonstratives and *-an* in texts from Hunza

		∅		-an		total	
proximant	<i>khiné</i> H	23	88.5	3	11.5	26	100.0
	<i>gusé</i> X	24	96.0	1	4.0	25	100.0
	<i>guté</i> YZ	85	98.8	1	1.2	86	100.0
distal	<i>iné</i> H	234	99.2	2	0.8	236	100.0
	<i>isé</i> X	186	97.4	5	2.6	191	100.0
	<i>ité</i> YZ	295	96.7	10	3.3	305	100.0
total		848	97.5	22	2.5	870	100.0

Table 137 obviously shows the negative correlation between demonstratives and *-an* in the texts of Tikkanen (1991; *Frog as a Bride*), Berger (1998b: ##1–41), and *čhúmoe minás* (included in Appendix I – Texts). It seems there is no reasonable motivation for their co-occurrence of them, so that they might be regarded as accidental misapplications for now.

- (330) isé    *han*    *yániṣe*    *čhúmoan*    *duúsas*    *ke*    *isé*  
 isé    hán    yéniṣ-e    čhúmo-an-∅    d-gús-as-∅    ké    isé  
 that:X    one:X    gold-GEN    fish-AN-ABS    TEL-go.out-INF-ABS    LINK    that:X
- yániṣe*    *čhúmo*    *núcininin*    *íne*    *baadšáa*    *nookár*  
 yéniṣ-e    čhúmo-∅    n-i-ic'-n-n-n    iné    baadšáa-e    nookár-∅  
 gold-GEN    fish-ABS    CP-3SG.X:I-see-CP-CP-CP    that:H    king-GEN    servant-ABS
- buṭ*    *heiráan*    *imánimi*.  
 búṭ    heiráan    i-man'-m-i  
 much    amazed    3SG.HM:I-become-NPRS-3SG.HM

‘There came out that golden fish, and the king’s servant saw the golden fish and was really amazed.’ (*čhúmoe minás*: #11)

<sup>†56</sup> This is based on Lyons’s (1999) opinion: “The deictic feature typically expressed on a demonstrative plays a similar role to pointing, guiding the hearer’s attention to the referent. This suggests a necessary connection between [+ Dem] and [+ Def], the former implying the latter. I take demonstratives, then, to be necessarily definite.” (Lyons 1999: 21).

For example, the initial noun phrase of the sentence (330) *isé han yániše čhúmoan* ‘that golden fish’ includes a demonstrative and the suffix *-an* although its referent has been already introduced into the discourse and therefore it must be semantically definite.

And the positive correlation between *-an* and numeral *hin/han/hik* ‘one’ tells us that the numeral serves as a quasi-indefinite marker<sup>†57</sup> and then they often co-occur.

Table 138. Correlation between *hin/han/hik* ‘one’ and *-an* in texts from Hunza<sup>†58</sup>

		∅		<i>-an</i>		total	
<i>hin</i>	H	9	12.0	66	88.0	75	100.0
<i>han</i>	XY	12	7.1	158	92.9	170	100.0
<i>hik</i>	Z	1	14.3	6	85.7	7	100.0
total		22	8.7	230	91.3	252	100.0

As shown in (328), indefinite referents consist of specific and non-specific referents. On the one hand, if a referent is specific, it can be either definite or indefinite. On the other hand, if a referent is non-specific, it ought to be indefinite. Table 138 has demonstrated that *-an* shows indefiniteness of referents, and this means that it can function not as an indefinite marker but just as a non-specific marker, because the latter logically implies the former function also.

<sup>†57</sup> Lyons (1999: 36fn.) uses the label quasi-indefinite article for the articles which do not itself encode [– Def] but signal indefiniteness indirectly.

<sup>†58</sup> Here I removed the two texts in Berger (1998b) which I judged as showing the quite peculiar distributions: #36 and #41. The distributions in the texts are as follows:

Table B. Distribution of *-an* and *hin/han/hik* ‘one’ in the biased texts (deviation value)

text	36		41	
	∅	<i>-an</i>	∅	<i>-an</i>
<i>hin</i> H	0 (44.3)	1 (47.1)	1 (73.4)	0 (38.5)
<i>han</i> XY	4 (132.1)	2 (43.9)	1 (64.3)	1 (39.3)
<i>hik</i> Z	1 (132.8)	0 (45.0)	3 (321.4)	0 (45.0)
total	5 (124.7)	3 (43.5)	5 (124.7)	1 (36.4)

The deviation values are figured out within the Hunza texts recorded in Berger (1998b).

The total combination of *-an* and HIK does not normally distribute, but it can be said that the two texts unreasonably add the number of instances of HIK without *-an* owing to the extreme deviation values in Table B. As an additional note, the two texts are recorded from the same consultant.

To make it clear whether *-an* functions as an indefinite or a non-specific marker, I examined all the singular nouns which have an overt head<sup>†59</sup> from the text *čhúmoe minás* in respect of specificity (speaker-identifiability) and referentiality. The statistical figures are in the following Table 139:

Table 139. Distribution of singular nouns along specificity and referentiality

	specific		non-specific		non-referential		total	
∅	656	71.8	55	6.0	203	22.2	914	100.0
	95.5		51.9		76.0		71.8	
<i>-an</i>	31	21.2	51	34.9	64	43.8	146	100.0
	4.5		48.1		24.0		28.2	
total	687	64.8	106	10.0	267	25.2	1060	100.0
	100.0		100.0		100.0		100.0	

The low frequency of non-specific reference is surely due to the text genre of storytelling, because such a tale normally has to be told with a simple and straightforward plot, so that it will tend to contain fewer participants.

There is no strict functional distinction in the use of *-an* revealed by this chart, but we can see a tendency of the suffix to be used more in non-referential contexts than referential and more in non-specific contexts than specific. Whereas the reference without *-an* is most often used with a specific referent; however, non-referential denotations prefer the noun forms without *-an*. Alternatively, it can be understood that the suffix *-an* tends to be rather used for referential non-specific singular nominal entities to distinguish them from referential specific ones, but when a singular entity is non-referential then its non-specificity is not necessarily denoted in the overt way by employing *-an* because non-referentiality has already implied its non-specificity. Also in Table 139, we can see that the proportion of non-referential nouns with *-an* to ones without *-an* (24.0%) is nearly the same as the total proportion of nouns with *-an* to ones without *-an* (28.2%). Such an asymmetric distribution is somewhat similar to the one depending on opacity and reference in ChiBemba which was introduced in Givón (1973), though they differ in that the morphological contrast in ChiBemba is neutralised for referential nouns, while the contrast in Burushaski becomes hazy for non-referential nouns.

<sup>†59</sup> This database is made for the syntactic analyses in §11.4 at first, so that I only extracted the (both singular and plural) nouns which have an overt head for the sake of distinction of their syntactic status.

11.3.2. General plural suffix *-ik*

The general plural suffix *-ik* has been treated as an indefinite plural suffix as well as singular *-an*. So at first I look over the distribution of *-ik* for co-occurrence with demonstratives and numerals in *čhúmoe minás*, see Table 140.

Table 140. Distribution of all plural nouns in the text *čhúmoe minás*

DEM	NUM	∅	<i>-ik</i>	total
✓	–	12 100.0	0 0.0	12 100.0
✓	✓	5 100.0	0 0.0	5 100.0
–	✓	17 100.0	0 0.0	17 100.0
–	–	122 93.8	8 6.2	130 100.0
total		156 95.1	8 4.9	164 100.0

But there is no example of a noun with *-ik* modified by a demonstrative and/or a numeral in the text.<sup>†60</sup> This reveals the strong tendency of *-ik* to appear in indefinite reference.

In the following, let us discuss the distribution of *-ik* in terms of specificity and referentiality with Table 141.

Table 141. Distribution of plural nouns along specificity and referentiality

	specific	non-specific	non-referential	total
∅	74 47.4 98.7	40 25.6 95.2	42 26.9 89.4	156 100.0 95.1
<i>-ik</i>	1 12.5 1.3	2 25.0 4.8	5 62.5 10.6	8 100.0 4.9
total	75 45.7 100.0	42 25.6 100.0	47 28.7 100.0	164 100.0 100.0

Table 141 shows that the behaviour of *-ik* for these properties is not same as that of *-an*; With plural nouns, the indefinite suffix *-ik* is mostly preferred for non-referential use. (However it will be the case that the ratio has gone up accidentally owing to the small number of nouns with *-ik*.) Anyway, *-ik* is used rather for indefinite non-specific

<sup>†60</sup> The infrequency of the suffix *-ik* is observed not just in this text but in all texts of Eastern and Western Burushaski now.

interpretation as well as *-an*.

### 11.3.3. Diversity along specificity

Considering these indefinite suffixes, *-an* and *-ik*, it seems there is some asymmetry between the corresponding affirmative and negative sentences. See the next examples:

- (331) “*bée ya áso náa. úne háale ɖaɖán*  
*bé yá a-s’i náa ún-e ha’al-e ɖaɖán*  
 no INTERJ 1SG:II-tell-IMP.SG TAG.Q thou-GEN house-LOC-ESS large.drums  
*ɖaámal bié ke áso” sénase káa.*  
*ɖaámal-Ø b’ién-Ø ké a-s’i sén-as-e káaɕ*  
 timpani-ABS COP-3PL.X-PRS LINK 1SG:II-tell-IMP.SG say-INF-GEN together

‘[The servant] said “No, tell me the truth. Tell me that there are drums and timpani in your house”.’ (*čhúmoe minás*: #72)

- (332) “*bée yái ju jáa háale ɖaɖán*  
*bé yá jú-i jé-e ha’al-e ɖaɖán*  
 no INTERJ come-IMP.SG I-GEN house-LOC-ESS large.drums  
*ɖaámalik apíe je bérican*  
*ɖaámal-ik-Ø a-b’ién-Ø jé-Ø béric-an-Ø*  
 timpani-INDEF.PL-ABS NEG-COP-3PL.X-PRS I-ABS Dom.person-INDEF.SG-ABS  
*apáa” nusé heiráan imánimi.*  
*a-bá-a-Ø n-sén heiráan i-man’-m-i*  
 NEG-COP-1SG-PRS CP-say surprised 3SG.HM:I-become-NPRS-3SG.HM

‘“No, you, there’re no drums and timpani in my house. I’m not a Dom” [the companion] said and was surprised.’ (*čhúmoe minás*: #73)

Here all of the references in affirmative and negative copular predication are (non-specifically and) non-referentially interpreted nouns, and the speaker referred without an indefinite suffix in affirmative clause in (331), whereas he referred with an indefinite suffix in the negative clauses in (332). It is noted that negative non-referential nouns are relatively marked by the indefinite suffixes, although referentiality seems not to be an effective feature to explain the distributional gap between nouns with and without the indefinite suffixes, at least the indefinite singular suffix *-an*. See Table 142,

illustrated with the data from *čhúmoe minás*.

Table 142. Formal distribution of copular predicate arguments on polarity and referentiality (Spec./Non-Spec./Non-Ref.)

	Affirmative						Negative					
	SG		PL		subtotal		SG		PL		subtotal	
∅	46	52.3	34	94.4	80	65.6	3	33.3	3	50.0	6	40.0
	(22/4/20)		(3/2/29)				(0/0/3)		(0/0/3)			
-an/-ik	42	47.7	2	5.6	44	34.4	6	66.7	3	50.0	9	60.0
	(6/10/26)		(0/0/2)				(0/0/6)		(0/0/3)			
total	88	100.0	36	100.0	124	100.0	9	100.0	6	100.0	15	100.0

It is clear that the indefinite suffixes are more frequently used in negative clauses than affirmative clauses. Hence it can be said that the indefinite suffixes are used to index de dicto referents which have less informational saliency or semantic individuality. This use can be paraphrased with a partitive function (in negative propositions), and it may be the motivation why Tiffou (1999) labels the function of *-ek* in WB (corresponding to *-ik* in EB) with “partitif” though he is not explained it.

#### 11.3.4. Definiteness encoded in Burushaski

Despite the existence of the indefinite markers *-an* and *-ik*, there is no definite marker in Burushaski so definiteness is not always represented overtly but it is sometimes signaled by demonstrative adjectives, pronouns, or personal pronouns. In particular, the arguments which receive modification by relative clauses almost always take such definite designation with them.

(333)	<i>iné</i>	<i>áminan</i>	<i>silajínan</i>	
	<i>iné-∅</i>	<i>ámin-an</i>	<i>silajín-an-∅</i>	
	that:H-ABS	which:H-INDEF.SG	female.relative-INDEF.SG-ABS	
	<i>dumóobóm</i>	<i>ke</i>	<i>baadšáa</i>	<i>yuúsmur</i>
	<i>d-muː+bá-o-m</i>	<i>ké</i>	<i>baadšáa-e</i>	<i>i-usːmu-ar</i>
	come:PFV-3SG.HF+COP-3SG.HF-NPRS	LINK	king-GEN	3SG.HM:I-wife-OBL-DAT

<i>maaní</i>	<i>étase</i>	<i>gáne,</i>	<i>iné</i>	<i>muyánčiar</i>
maaní-Ø	i-t'-as-e	gan'-e	iné-Ø	mu-gan'č'i-ar
meaning-ABS	3SG.Y:II-do-INF-GEN	way-ESS	that:H-ABS	3SG.HF:I-welcome-DAT

<i>numóonin</i>	<i>muúto</i>	<i>muriñ</i>	<i>dúmarinin,</i>
n-mú'-n-n	muú-to	mu-riiñ'-Ø	d-u-mar'-n-n
go:CP-3SG.HF-CP-CP	now-just	3SG.HF:I-hand-ABS	TEL:CP-3PL.X:I-take.up-CP-CP

‘the woman, who came there to teach the meaning for the king’s queen, had an audience with her, and now is ready to take up her question.’ (*čhúmoē minás*: #194)

- (334) 

<i>šon gukúr</i>	<i>biṭáne</i>	<i>bésan</i>	<i>sénuma</i>	<i>ke</i>	<i>ité</i>
šón+gukúr	biṭán-e	bés-an-Ø	sén-um=a	ké	ité-Ø
Shon.Gukur	shaman-ERG	what-INDEF.SG-ABS	say-ADJVLZ=Q	LINK	that:Y-ABS
- sahíi maními.*  
*sahíi man'-m-i*  
 correct become-NPRS-3SG.Y

‘What Shon Gukur had said turned out true.’ (*šon gukúr*: #14)

The underlined demonstratives in (333) and (334) demonstrate what the boxed relative clauses refer to and therefore they must be definite. The relativized referent can be represented by a head noun with demonstrative modification as in (335):

- (335) 

<i>ámit</i>	<i>dísulo</i>	<i>isé</i>	<i>nizá</i>	<i>ya bim</i>	<i>ke,</i>
ámit	diš'-ul-e	isé	nizá-Ø	i-ya+b'i-m	ké
which:Y	ground-LOC-ESS	that:X	spear-ABS	3SG.Y:I-get+COP-3SG.X-NPRS	LINK
- ité han dísulo yaaní akhúrut darían*  
*ité hán diš'-ul-e yaaní akhúrut darí-an-Ø*  
 that:Y one:Y ground-LOC-ESS FIL this.size:Y window-INDEF.SG-ABS
- balílúm, yumór, yumór balílúm.*  
*bal+b'il'-m yumór-Ø yumór-Ø bal+b'il'-m*  
 fall+COP-3SG.Y-NPRS small.hole-ABS small.hole-ABS fall+COP-3SG.Y-NPRS

‘In the place where that arrow had struck, down there there was a small hole, a hole there was.’ (Tikkanen 1991, *The Frog as a Bride*: #392)

In this way relative constructions mostly employ demonstratives or pronouns as corresponding to the definiteness of the relativized referent, while the unique referents in the real world, like the sun in (336), and the already mentioned referents in the discourse, such as the wind in (337), are less frequently encoded by demonstratives despite the definiteness.

- (336) *ʃu'malɛ* *tɪʃ* *kɛ* *sà* *'gutɛ* *'cagaʔɛ* *caɪ*  
*ʃumáal-e* *tíʃ* *ké* *sá-∅* *guté* *čáɣa-aʔ-e* *čál-∅*  
 north-GEN wind LINK sun-ABS this:Y story-INS-ESS quarrel-ABS
- u'manɪbɪm,* *mi* *mɛ̀ltalikɛum* *mèn*  
*u-man+b'ién-m* *mí-e* *mí-ltalik-c-um* *mén-∅*  
 3PL.X:I-become+COP-3PL.X-NPRS we-GEN 1PL:II-both-ADE-ABL who-ABS
- 'ʃatɪ|o* *bàn.*  
*ʃatílo* *bá-an-∅*  
 strong COP-1PL-PRS

‘The North Wind and the Sun had argued “which of us is stronger than the other?”.’ (Lorimer 1935a, *Story of the North Wind and the Sun*: #1)

- (337) *tɔrɔmanɔr* *tɪʃ* *ho* *buʔ* *mɔnɪmi.*  
*tóor-um-an-ar* *tíʃ-∅* *hóo* *búʔ* *man'í-m-i*  
 that.much-ADJV LZ-INDEF.SG-DAT wind-ABS whizz much become-NPRS-3SG.Y

‘And then the North Wind blew very much.’ (Lorimer 1935a, *Story of the North Wind and the Sun*: #4)

#### 11.4. Relationship between morphosyntax and pragmatics

The last section for discussion chiefly dealt with the indefinite suffixes, *-an* and *-ik*, and the demonstrative with respect to morphology concerning definiteness, specificity, or referentiality.

In this section I take up the morphosyntactic realization of pragmatic and semantic content, presupposing that differences in informational importance among referents should draw out some distributional tendency of their usage in clauses or sentences. The statistics of each item in the following subsections are based on the text of *čúmoe minás*, which contains 1,624 nominals as core arguments (subject or object use), peripheral



arguments (genitive, locative, or complement use), and pseudo-object elements which are not argument.

#### 11.4.1. Grammatical roles and information flow

It seems that definiteness affects grammatical roles; an indefinite referent which is newly introduced into the discourse are difficult to place in subject position in a verbal clause and so tends to be in the object position. In Table 143, A indicates the subject argument in transitive clauses, S is the subject of intransitives, and O denotes the object argument including recipient in ditransitive clauses. Given and Accessible referents are definite and New referents are indefinite, at least in the corpus, where there is no proper noun and no unique entity in the real world.

Table 143. Relation between grammatical roles and information flow

	Given		Accessible		New		total	
A	127	92.7	3	2.2	7	5.1	137	100.0
	30.6		6.4		3.2		20.2	
S	104	72.7	8	5.6	31	21.7	143	100.0
	25.1		17.0		14.3		21.1	
O	184	46.1	36	9.0	179	44.9	399	100.0
	41.9		76.6		82.5		58.8	
total	415	61.1	47	6.9	217	32.0	679	100.0
	100.0		100.0		100.0		100.0	

As for verbal clauses, a large number of indefinite referents are brought into the discourse as an object argument at first. Agent role is not suitable for introducing new referents and is less frequently mentioned overtly in storytelling because the given, predictable arguments are freely omittable. Subject position is occasionally used to introduce a new referent and its action as in (338).

- (338) “*akhí*      *akhí*      *sísan*                      *áa*      *káa*  
*akhíl*      *akhíl*      *sís-an-Ø*                      *a'e*      *káaṭ*  
in.this.way    in.this.way    people-INDEF.SG-ABS    1SG:II-GEN    together  
  
*imánóm.*                                      *phalaaná*      *ité*      *díšcum*  
i-man+bá-i-m                                      *phalaaná-Ø*      *ité*      *diš'-c-um*  
3SG.HM:I-become+COP-3SG.HM-NPRS    so.and.so-ABS    that:Y    ground-ADE-ABL

<i>báači</i>	<i>íne</i>	<i>phalaaná</i>	<i>‘baadšáa</i>
báad-či-e	ín-e	phalaaná	baadšáa-e
following.time-INE-ESS	s/he:DIST-ERG	so.and.so	king-GEN
<i>nookáran</i>	<i>báa’</i>	<i>séibái.</i>	
nookár-an-∅	bá-a-∅	sén-č+bá-i-∅	
servant-INDEF.SG-ABS	COP-1SG-PRS	say-IPFV+COP-3SG.HM-PRS	

‘ “Such a person has become a companion for me. That so-and-so came with me from a certain place and he said ‘I’m a king’s servant’.” ’ (čhúmoē minás: #86)

For this reason, the behaviour of Subject arguments is in between that of Agent and Object arguments.

Alternatively, an indefinite referent is often grounded into the discourse with a copular clause. Here I have not counted the subject and complement arguments in copular clauses because Burushaski allows the omission of arguments so that distinguishing between whether an argument in a copular predicate is subject or complement cannot be simply done. Just for reference, 125 (65.1%) out of 192 subject or complement arguments in copular clauses refer to new information.

#### 11.4.2. Grammatical roles and the content of nominal phrases

The definiteness and the shape of nominal phrases correlate with each other, so that the shape shows variation according to grammatical roles. When a relative clause or a demonstrative modifies a noun, then the noun phrase will be mostly definite; and numerals, genitive nouns, and some adjectives sometimes modify nouns and make the noun phrases definite. Whereas, of course, some bare nouns may be definite in context. On the other hand, new reference, which is almost always indefinite, tends to be introduced into a discourse as an object argument in a transitive clause or as a subject argument in an existential copular clause, where are the most focused position, at first.

Table 144 is a cross-classification chart of the grammatical roles in the clauses which are headed by verbs, not copulas,<sup>†61</sup> and the types of the modification and/or head of nominal phrases: Relative clause, Demonstrative, Numeral, Genitive, Adjective including perfective and imperfective participles, Pronoun, and simple Bare noun.<sup>†62</sup> If

<sup>†61</sup> I ruled out the arguments in copular clauses here, because it is hard to formally distinguish subject arguments from complement arguments in copular clauses.

<sup>†62</sup> In Burushaski, personal and demonstrative pronouns can be modified by relative

a nominal had taken two or more modifiers, then I classified it into the class to the left in the table.

Table 144. Relation between grammatical roles and shapes of nominal phrases

	Relative		Pron/Dem/Num		Genitive		Adjective		Bare		total	
A	5	3.6	74	54.0	29	21.2	0	0.0	29	21.2	137	100.0
	33.3		29.4		25.7		0.0		10.7		20.2	
S	8	5.6	64	44.8	29	20.3	9	6.3	33	23.1	143	100.0
	53.3		25.4		25.7		32.1		12.2		21.1	
O	2	0.5	114	28.6	55	13.8	19	47.6	209	52.4	399	100.0
	13.3		45.2		48.7		67.9		77.1		58.8	
total	15	2.2	252	37.1	113	16.6	28	4.1	271	39.9	679	100.0
	100.0		100.0		100.0		100.0		100.0		100.0	

Comparing with the total average, Agent arguments are clustered on the left side in Table 144, while Object ones are relatively gathered on the right side. Bare forms can represent both definite and indefinite referents but actually Agents and Subjects are more often modified by something than Objects. As for shapes also, the distribution of Subjects (in intransitive clauses) is about average.

#### 11.4.3. How far or where is an argument situated from the predicate?

Besides the shape and information flow, grammatical roles are associated with the position of arguments in clauses. This can be summarized as so-called basic constituent order, which is described as SV/AOV in Burushaski as mentioned in §8.3. It can be simply illustrated by the average distance of all the arguments of each role as shown in Table 145. The arguments labelled with “Copular” are subject or complement arguments in copular clauses, and “Locatives” are spacial peripheral arguments in all kinds of clauses. The scale of distance is based on word number, and when an argument immediately precedes the predicate, then its distance counts 1. Arguments stated after the predicate in utterance are not enumerated in this table.

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clauses, genitives, and adjectives including participles and nouns can also.

Table 145. Distance of the arguments of each role from the predicate

	Agent	Subject	Object	Copular	Locative
DISTANCE FROM THE PREDICATE (WORDS)	3.15	2.13	1.45	1.68	2.27

This difference of distance seems not so important to be especially mentioned when it is treated solely, but the characteristic is actually reflected not only in this facet of constituent order.

Sometimes arguments follow the host predicate in the clause as if they were additional information. That is, it can be regarded that such arguments are not so important that they are not stated inside the intonation unit, i.e. phonological clause, headed by the predicate and situated after the predicate which is so to speak the most peripheral position for assertion of the proposition. Table 146 is a chart showing the number and the rate of the arguments which are expressed after the predicate as arranged in respect of grammatical roles.

Table 146. Rate of following the predicate

	Agent	Subject	Object	Copular	Locative
RATE OF FOLLOWING THE PREDICATE	3.65%	2.80%	1.26%	1.56%	2.89%
	5/137	4/143	5/398	3/192	11/380

The rate of following implies strictly same hierarchy as the distance of arguments for each roles; the farther from the predicate the arguments of a grammatical role are, the more frequently they can be postponed to the predicate. Object role arguments have the strongest linkage to the predicate on the one side, and Agent arguments have the weakest connection with the predicate on the other side.

Calculating the distance of the locative arguments from the predicate precisely, we can divide the distances into three groups by the predicate types as follows:

Table 147. Distance of the locatives of each kind of clauses from the predicate

	Transitive	Intransitive	Copula
DISTANCE FROM THE PREDICATE (WORDS)	2.51	1.77	2.57

Table 147 shows that locatives in verbal clauses are situated between the subject/agent and the predicate, but those in copular clauses are not simply so. “Copular” arguments include both subject and complement, and they are very frequently omitted, either one, or both. For this reason, the Copular arguments and the Locative argument cannot be

equally treated and compared with each other.

(339) Strength of syntactic linkage between the argument of each role and the VERBAL predicate in Burushaski

OBJECT > LOCATIVE > SUBJECT/AGENT

This order (339) also suggests that Burushaski has an accusative characteristic in respect of the informational procedure despite exhibiting ergative alignment in case marking.

### 11.5. Conclusion: Definiteness and specificity

I have surveyed definiteness and specificity of Burushaski in this chapter.

In the case of indefinite nominals, they can take an indefinite suffix and its employment is orientated towards non-identifiably and moreover non-referentially interpreted nouns, rather than identifiable ones; and speakers instead to use an indefinite suffix for negative predication. The suffixes *-an* and *-ik* should be simply labelled “(arbitrary) indefinite suffixes” but their actual occurrence has to be understood with respect to specificity containing speaker-identifiability, referentiality, and polarity where it positively shows some pattern, not complete randomness.

Definiteness is not overtly expressed in morphological shapes in Burushaski, but it influences grammatical roles and therefore syntactic behaviours of arguments. Among all roles, Object arguments are placed in the closest position to the predicate in transitive clauses and most frequently encode indefinite referents, while Subject/Agent arguments are furthest from the predicate and relatively of pronouns or definite nouns shaped with attributive or determinative modification. Newly introduced referents hold more informational importance than already given ones and thus they are referred to rather as Object, appearing next to the predicate which is the centre of information in a clause.

### 11.6. Further issues

Characteristics of nominals such as definiteness and/or specificity will influence the choice of predicate verb stems: transitive with or without the personal prefix, d-less transitive or d-prefixed intransitive, and so on, see §§9 and 10. Burushaski shows a gap in transitivity between case flagging and argument structure, so that, in some cases, an intransitive verb requires an absolutive, not ergative, subject and, besides it, an absolutive (or possibly caseless) object. Anticausative stems will typically be connected with non-referential objects, whereas opposite transitive stems will tend to take

referential objects. Transitive stems with the personal prefix are commonly linked with objects in higher position in the likelihood continuum of object, while transitives without the personal prefix are linked with lower objects. To survey this issue, plenty of natural utterance examples are required. There are too few relevant examples to compare for complete discussion.

In addition, the informational characteristics of nominals will have a relation with topicality, or more broadly functional sentence perspective. The most focused position in a clause is the syntactic slot immediately before the predicate (§8.11), which even a new referent can easily occupy as mentioned in §11.4.3 above. Topics are liable to be formally treated in such a restrained way in discourse that we are faced with difficulty dealing with them. Referentiality is an indispensable condition for topic, but inclination towards topic may be based on specificity and/or definiteness.

Modality has an affinity with definiteness or something similar, surely in general. Realis moods are more connected with referential establishment such as speaker- or hearer-identifiability. Contrary to that, irrealis makes scopally opaque-context (Lyons 1999: 166–70), for example negation invokes more use of indefinite suffixes to overtly draw the semantic scope as seen in §11.3.3 before. Such diversity would be observed in the other irrealis contexts.

As before, there are only short texts to debate these issues, therefore it needs further investigation and future study is desirable.

## CONCLUSIONS

### 12.1. Generalizations

This dissertation consists of an introductory chapter; chapters 1 to 8, which deal with grammar; chapters 9 to 11, which deal with theoretical issues; this chapter, which provides the conclusions; and, lastly, appendices of four texts and a vocabulary section for future reference. In the grammar section, chapter 1 is devoted to the phonology of Eastern Burushaski, chapter 2 to 7 deal the morphology, and then chapter 8 covers the (morpho)syntax.

Introduction: At first I exhibited the basic information on Burushaski in this part. I declared that the subject language of this study is Eastern Burushaski which contains dialects spoken in Hunza and Nager valleys. And in this chapter I explained my fieldwork with the places, the consultants, the time periods, and the methods.

### **Part I – Grammar**

Chapter 1 – The Sound System: This chapter provides phonological information. Burushaski has 36 consonants and 10 vowel sounds: /p, ph, b, m, t, th, d, n, ʈ, ʈh, ɖ, ɕ, ʧh, j, c, ch, ɟ, ɟh, j, k, kh, g, ŋ, q, qh, s, z, š, ʂ, ɣ, h, r, l, w, y, ʏ; i, e, a, o, u, ii, ee, aa, oo, uu/. Briefly, the syllable structure of Burushaski is CCVCC. This language has a pitch accent system. Major phonological and morphophonological rules are also described at the end of this chapter.

Chapter 2 – Descriptive Preliminaries: Here I introduced the terminology for the descriptive unit, such as word, phrase, and clause, used in the dissertation. Then, I defined the eight word classes I used to examine the Burushaski language: noun, pronoun, adjective, numeral, verb, copula, conjunctive, and interjection. There is not a class of adverb to be adopted. This language has five nominal classes, HM, HF, X, Y, and Z, and each noun belongs to some class. HM-class contains human male referents, while HF-class members are human female. X-class is the class of concrete objects such as animals, fruits, and mountains, on the one hand; Y-class is of abstract entities like as buildings, trees, liquids, notions, and so forth, on the other hand. And Z-class is a subclass of Y-class and predominantly consists of temporal nouns.

Chapter 3 – Nouns: This chapter is named as though it only describes nouns, but actually pronouns, adjectives, and numerals can be used for nouns and can take nominal

formatives such as case markers and number markers, so that this chapter deals with these word classes too. Burushaski has a system of declension and conjugation which can be explained with templatic interpretation. Nominals can decline for number and case and sometimes for person. There is a large variety of plural suffixes for nouns, despite the fact that no strict rule to combine a suffix with a nominal base exists. Note, however, that only certain of the plural suffixes are used in a double plural expression. Besides the problematic plural suffixes, we can find two indefinite suffixes *-an* for singular and *-ik* for plural (§11). Some nouns require the personal prefix to regularly index the possessor, and the possession expressed with the personal prefixes is always inalienable. Case suffixes serve to perform the function of case marking; more than a dozen cases can be detected in Burushaski, in particular, locational cases are built up by combinations of a positional case and a directional case. I employ  $\emptyset$  for the absolutive case, despite the fact that previous research has not used zero morphemes for morphological description. Furthermore I distinguish nouns between with the zero suffix and with no suffix in terms of their syntactic status in clauses.

Chapter 4 – Demonstratives, Personal Pronouns, and Interrogatives: Here treated demonstratives, interrogatives, and personal pronouns. Demonstratives alter their form according to the noun class of the referent. Morphologically and semantically, demonstratives are divided into two groups, i.e. proximal and distal, while interrogatives constitute the third group paralleling demonstratives. Personal pronouns are used for only the first and second person, the third person HM- or HF-class referents are replaced by the corresponding demonstrative pronoun in H-class form which can imply deictic difference unlike the personal pronouns which cannot.

Chapter 5 – Adjectives and Numerals: Some attributive adjectives that modify plural entities take a plural suffix, and some emotional adjectives require the personal prefix to designate the experiencer of the emotion: e.g., *@-yarum* ‘beloved, one’s favorite’. Additionally, numerals are a special kind of adjective and behave in a somewhat different manner from normal adjectives. The imperfective participle and the perfective participle are, in fact, adjectivalised deverbal forms, and therefore half of their morphological and syntactic behaviour is explained by annotations for adjectives. The other half should be understood as retaining verbal characteristics such as governing the arguments, and this will be made clear in the chapter dealing with verbals.

Chapter 6 – Verbals: This is one of the most important chapters in the dissertation, because the predicate indexes argument information by affixes and is seldom omitted in



utterances, so it functions as the centre for clause construction. Verbs show a complicated derivational process, with five choices at the slots [-3] to [-1], i.e. telicity, person, and causative, and the slots [+1] to [+2], i.e. plurality and aspect, for stem formation. These choices with the exception of aspect tend to have fixed combinations with each other and with verbal roots. Their derivational patterns are quite difficult to sum up (the derivation at the [-3] slot will be done in chapter 10). Verbals can denote the subject participant, polarity, and mood as well as, in some cases, the undergoer participant. Thus, the verbal template had developed into something larger and had become able to carry much information at once in this way. Semantically and morphologically there are five moods in Burushaski: present indicative, non-present indicative, imperative, optative, and conditional. Among them, surely “non-present mood” is not familiar to most readers. I have coined this term to represent a notion, that previous studies on Eastern Burushaski did not examine. The non-present suffix *-m* is employed in temporal references to the past or future, the former is realised with perfective aspect and the latter is realised with imperfective aspect. Contrary to this, the present suffix *-∅* is used in situations where an event or the effect of an event is evidently considered to be still present by the speaker, and hence it is used for present time reference or for prospective events which are evidently about to happen. (The use of this zero suffix for the present mood is my original idea as well as the zero suffix for the absolutive case, which I have mentioned in §3.5.1.)

Chapter 7 – Other Morphological Processes: I devoted this chapter to the examination of four types of word formation not related to affixation. Presently, compounding in Eastern Burushaski does not appear to be productive: formerly established compound words are freely used but there seem to be few or no spontaneously built compound words. Additionally, while simple reduplication is seldom used in Eastern Burushaski, but echo-formation, or fixed-segment reduplication, is relatively prevalent in daily conversation. Echo-formation is listed in the characteristics of Indian languages and is reported outside the Indian Subcontinent. This type of formation reduplicates a base form by overwriting a segment with another segment, rendering the reduplicant part meaningless and attaching it to the base part. Echo-formation adds some rough nuance or some semantic modification to the original meaning of a base part. In Burushaski, the primary and secondary fixed segments for echo-formation are /m/ and /š/ respectively. Though the choice of segments depends on each speaker. I attested the fact with the instances here. Onomatopoeic words are familiar in Burushaski. Speakers often use onomatopoeia and modify a sound to express different images on the basis of their sound symbolism. For example, /a/ can be

connected to a louder or more vivid image than /u/ and /i/.

Chapter 8 – Syntax: This chapter is quite important and dealt with syntax and morphosyntax together. After examining the basic constituent order in phrases and clauses, I discussed grammatical relations and agreement systems. In sum, Burushaski verbs govern the cases of core arguments in an ergative alignment, while some verbs show agreement of a personal suffix according to the subject argument, not the absolutive one as ergative languages generally do. Moreover, the personal prefix on verbs agrees with the argument in the undergoer role. Interrogative clauses and syntactic modal expressions basically do not change constituent order but informational operations such as topicalization affects the order to make the target salient in context. To topicalize a constituent it is moved forwards. Burushaski has several converbal forms that are used to combine clauses as well as conjunctives. These forms may be in the process of changing their functions from same-subject conjunctions (as described in Tikkanen (1995)) to free-subject ones, or of getting looser functions with regard to switch-reference.

## **Part II – Theoretical Issues**

Chapter 9 – Transitivity and Its Surroundings: I discussed mainly intransitive stem pairs and transitive stem pairs; each type of pairs shows a gap in the personal prefix slot. Significantly, previous studies did not examine why transitive stem pairs are differentiated from each other. Therefore, I examined the issue myself and concluded that the employment of the prefix slot on a transitive stem is motivated by the likelihood of the presence of an object argument. This likelihood is relative to nominal properties such as nominal class and definiteness. At the end, I drew a transitivity chart of all the Burushaski verbs ordered from ditransitives with the personal prefix as the most transitive stems, then through monotransitives with the prefix, monotransitives without the prefix, and intransitives without the prefix, to intransitives with the personal prefix as the least transitive stem types.

Chapter 10 – *d-* Derivation: I examined the system of verb stem derivations with the *d-* prefix. *d-* remains a controversial prefix. This prefix has been described with a variety of meanings and functions. I discussed the meaning and functions of the prefix in this chapter and listed five functions with a directional suggestion of grammaticalization: venitive => fientive => stative => resultative => anticausative. These functions are realised according to the meaning of verbal bases which may be comprehended from the derivational patterns of the roots with the personal and the

causative prefix. All these functions involve a goal point of action, namely a state, a result, or a location, and therefore share telic characteristics.

Chapter 11 – Definiteness and Specificity: In this chapter, I researched the indefinite markers *-an* and *-ik* and surveyed the morphosyntactic and pragmatic relationship among nominal characteristics on the basis of the database of a text *čúmoe minás*. These indefinite markers are often used in non-specifically interpreted situations and in negative clauses. Speakers choose grammatical roles for referents in utterances on the basis of definiteness and specificity, and it can be said that these properties affect syntactic expressions. Definite referents are apt to be expressed as the actor of transitive clauses, or the subject of copular clauses, with more modifiers and more distant from the predicate, while less specified referents tend to be expressed as the object of transitive clauses, or the complement of copular clauses, near the predicate.

§§9 and 10 dealt with the derivations of verb stem and §11 is devoted to the characteristics of nominals such as definiteness and/or specificity. These topics correlate with each other in morphosyntax. Characteristics of nominals such as definiteness and/or specificity will influence the choice of predicate verb stems: transitive with or without the personal prefix, d-less transitive or d-prefixed intransitive, and so on. Additionally, the informational characteristics of nominals will have a relation with topicality, or more broadly functional sentence perspective. Modality has an affinity with definiteness or something similar, surely in general. Realis moods are more connected with referential establishment such as speaker- or hearer-identifiability. Contrary to that, irrealis makes scopally opaque-context, for example negation invokes more use of indefinite suffixes to overtly draw the semantic scope.

As appendices to the dissertation, I provided texts with morphological analysis (Appendix I) and English translation and vocabulary of about 3,000 words (Appendix II) at the back for future reference.

## 12.2. Next problems to be solved

I treated and described extensive topics in this dissertation, but it cannot be denied that the individual linguistic phenomena are treated only superficially and in a limited way. I think the future development of my study will be based on this work and will solve this deficiency by deeper considerations and research. For a long-term plan, I will strive to extend the research field to the whole of Burushaski and the surrounding languages such as, in particular, Domaaki/Domaa and Shina.

I think the following problems remain to be solved in the dissertation.

As for the phonology, there should be more morphophonological patterns that I have not explained here. For example, the elimination of /h/ does not always happen in certain conditions, I have not grasped when or with what kind of /h/ it will be eliminated among all /h/ initial words. As for long vowels and vowel clusters, I have described them in a completely different way, but they may be treated more closely, in particular, some long vowels may have to be regarded rather as vowel clusters, to all appearances looking like long vowels by chance. There may be some patterns or tendencies of accent position in Burushaski. I guess that indigenous words prefer the initial second syllable to put an accent so that many monosyllabic nouns are apt to put an accent on the plural suffix. This shift is based on the fact that the Burushaski language seems to decide an accent position as counting syllables from the front of words and it realises the accent attraction by prefixation on to verbals.

In morphology, the issue of oblique case marking remains. It is still unclear under what condition an oblique marker will be employed. It may or may not appear in the same morphological situations and so there might be a prosodic motivation or a related explanation. And the dative case marker in the Nager dialect is realised in two forms *-ar* and *-are*, but the condition has not been proved yet.

With respect to syntax, there is a problem with the gap between morphological case alignment given by a predicate and syntactic valency of the predicate. Some verbs require the absolutive subject (and if it has the personal prefix slot then it agrees with the subject) as well as intransitive verbs and also the absolutive object as well as transitive verbs.

Besides these problems, long-term research will deal with the question of how Burushaski and the surrounding languages correlate and influence each other. From my fieldwork I have felt that Domaaki is fairly affected by Burushaski and Domaa is exceedingly affected by Shina. Western Burushaski is influenced by Khowar, and Eastern Burushaski is influenced by Shina likewise. But Shina undergoes some influences caused by contact with Burushaski, too. How and how much have they affected each other? Which grammatical features have become common among languages and in which direction? Similarly to Burushaski, these languages have not been well studied yet, and since Domaaki/Domaa is an extremely endangered language, I will have to go research the languages in future. The only two Domaa speakers do not speak Urdu but both speak the Nager dialect of Burushaski, hence I think I am one of the very few people who are able to do linguistic research on the language.

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