

## CONCERNING THE TYPOLOGY OF BURUSHASKI AND THE ROOTS OF ITS PREFIXES *d-* AND *n-*

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The isolated<sup>1</sup> Burushaski language, spoken by 80,000-90,000 individuals in western Karakoram (northern Pakistan) possesses some verbal prefixes which have been difficult to etymologize.<sup>2</sup> The most problematic one is the common (but no longer productive) derivational prefix (or preverb) *d-* (*dV-*). In an investigation carried out by Tiffou & Morin (1993: 385) relating to the Yasin dialect, where this prefix is even more common than in the Hunza and Nager dialects, it was found to occur in 174 verbs, i.e. 62%, of a corpus of 280 verbs or verbal bases. Apart from its opaque meaning, another intriguing fact about this prefix is that it cannot cooccur with the primary converbal prefix *n-* (*nV-*), although the latter is an otherwise fully productive inflectional morpheme. The mere lack of personal endings and tense-aspect-mood markers will then sign that the form is a primary ('anterior same-subject') converb, although as in other cases the optional primary converbal suffix *-(i)n* can be added, e.g. *du-ún(-in)* 'having seized, seized and (then)...' < *du-ún-* 'to seize', cf. *nu-hér(-in)* 'having cried, cried and (then)...' < *hér-* 'to cry'. The ban on

<sup>1</sup> Attempts to link Burushaski with Ket (the last member of Yeniseic) and/or some of the Caucasian languages, Basque, Indo-European, etc., have been made, but the genealogical relations remain obscure.

<sup>2</sup> Unless otherwise stated, the data presented in this article represent the Hunza dialect (Hz.), which differs from the Nager dialect (Ng.) but little, but from the Yasin dialect (Ys.) substantially. The orthography has been unified and aims at minimizing the number of diacritics and special symbols. It has been worked out in collaboration with Stephen Willson and native Burushaski speakers from Hunza, and differs from the traditional transcriptions used by Lorimer, Berger and Tiffou in the following ways:

- (1) The digraphs *cs* (dental affricate), *ch* (palatal affricate) and *çh* (retroflex affricate) correspond to *č/c*, *č/č* and *ç*, respectively. (Lorimer transcribed *cs* as *ts*, but Burushaski speakers read *ts* as *tas*, *tis*, etc., whereas *c* is read as [k]).
- (2) The digraphs *sh* (palatal sibilant) and *çh* (retroflex sibilant) correspond to *š/š* and *ʃ*, respectively.
- (3) The digraph *gh* (voiced uvular stop or affricate) corresponds to *g/ɣ*.
- (4) The digraph *ng* (velar nasal) corresponds to *ŋ /ŋ* ( $\neq$  *ngg*).
- (5) To distinguish a consonant cluster ending in *h* which could be mistaken for a digraph ending in *h* or an aspirated consonant, an apostrophe is inserted (e.g. *s'h*  $\neq$  *sh*, *cs'h*  $\neq$  *csh*).

*n-* does not apply when *d-* has been reinterpreted as belonging to the base, as, e.g., in the verb *d+.-l- / +dél-* 'to hit, strike, put in (on)'. (N.B. The plus sign indicates the position of the variable pronominal prefix, indexing the 'affected (or effected) participant', the dot indicates full/strong grade of the vowel of the pronominal prefix, e.g. *d-é+l-a-m* 'I (-a-) struck him (é+)', but *n-í+dil(-in)* 'having hit him (í+').)

To understand the verbal prefixes it might be helpful to first take a look at the general structure of the language. Burushaski has been variously described as a 'formal ergative' (Tiffou 1977), 'low-degree split ergative' (Klaiman 1987), 'non-genuine ergative' (Berger 1992), or 'active type' (Bashir 1985) language.

In an accusative system the morphosyntactic structure of simple active intransitive and transitive sentences can be roughly subsumed as: [NP1<sub>nom.</sub>]SUBJ V ([NP2<sub>acc.</sub>]OBJ), where the subject encodes the Actor (A) and the object the Undergoer (U).<sup>3</sup> (The constituent order is irrelevant as long as case marking or equivalent devices distinguish syntactic functions). In an ergative system the corresponding structural description would be: ([NP2<sub>erg.</sub>]AG) [NP1<sub>abs.</sub>]MED V, where AG stands for the ergative agent (encoding A) and MED stands for the absolutive (unmarked) 'medium'<sup>4</sup>, which in an intransitive sentence corresponds to the subject (single argument: S), but in a transitive one to the object (U). (Again the constituent order is irrelevant based on the above conditions.) Cf. Burushaski:

(1)	<b>Je</b>	<b>girát-a</b>	=>	In-e	<b>je</b>	<b>á+girat-o</b>
	I(ABS)	dance-1sg.MED		(s)he-ERG	I(ABS)	1sg.MED-dance-3sg.fAG
		'I danced'	=>			'She made me dance' <sup>5</sup>

<sup>3</sup> Following Foley & Van Valin (1984: 28ff.), the macrorole Actor can be characterized as the argument which expresses the participant which performs, effects, instigates, or controls, the situation denoted by the predicate, whereas the Undergoer is the argument which expresses the participant which does not perform, initiate, or control any situation, but rather is affected by it in some way. Depending on the semantic structure of the predicate (and to a lesser extent the inherent lexical content of the NP argument serving as Actor), the Actor can be, e.g., Agent, Effector, Locative (incl. Possessor, Recipient, and Experiencer) or Theme, while, analogically, the Undergoer can be Patient, Theme or Locative. (Initial capitals are used to differentiate semantic roles from syntactic functions.) This definition does not require all Actors to be agentive, although they would all be potential initiators and/or controllers of the action of the predicate. A and U can be compared with the terms 'acting-agent' and 'acting-patient' (Morin & Tiffou 1988: 497). Habitually the second argument of a transitive predicate is symbolized as O or P, but in this article P stands for 'pronominal prefix'.

<sup>4</sup> The Medium is defined by Halliday (1985: 146) as the participant which is 'the key figure in the process', 'through which the process is actualized, and without which there would be no process at all'. In an accusative system Medium is solely a semantic role based on a functional ergative analysis, cf. *the cloth tore/the nail tore the cloth*. In an ergative system medium can also be conceived of as a syntactic category, as it is always mapped by an absolutive NP. Notice that it is not coterminous with either Undergoer or Actor.

<sup>5</sup> For the sake of simplicity, the verb forms used in this and some other examples are in the unmarked tense, the so-called conative (aorist II of Yasin), which in the Hunza dialect is infrequent outside subordinate clauses. Note that pronominal arguments need not be expressed if indexed in the verb.

In a consistent ergative system, the verb (if it shows concord) would agree with the absolutive medium. But many languages with ergative case marking have accusative verb agreement (S/A) and/or they may index more than one argument in the verb; cf. (1), where the medium of the intransitive sentence and agent of the transitive one trigger the same set of 'personal endings' or 'subject suffixes',<sup>6</sup> while the transitive medium is cross-referenced by a pronominal prefix.

In an active (Klimov 1974), or, using a less ambiguous term, agentive (Palmer 1994: 66) system it is impossible to subsume sentence structures in a way corresponding to the above models. The reason is that there is a split on the intransitive level in that active/agentive (willfull, intending) and inactive/patientive (affected) intransitive subjects are treated differently (i.e. as A and U, respectively). Cf. Eastern Pomo (a Hokan language of Northern California) *há* (agt. S) *wá-du'kiya* 'I am going', *wí* (pat. S) *?ečkiya* 'I sneezed': *há* (A) *mí'p-al* (U) *šá'k'a* 'I killed him', *xá'su'-là* (A) *wí* (U) *ko'k'hóya* 'the rattlesnake bit me' (McLendon 1978: 1-3). This type of system, which is often called split intransitive, has also been treated as a special kind of split ergative (for criticism of this view, see Palmer 1994: 66f.).

When it comes to classifying a language in these or other terms, it has been observed that many languages employ two or even three systems for different purposes. For instance, Classical Sanskrit is basically accusative, but prefers an ergative construction in the perfective past, cf. Sanskrit *Mayā* (erg. log. subj.) *yūyamī* (nom. log. obj.) *dr̥ṣṭāḥ* (masc. pl., past pple.) 'I saw you' ≈ *Ahamī* (nom. subj.) *yuṣmān* (acc. obj.) *dadarśa* (1sg. perf. act.). Since the ergative is identical with the instrumental in Sanskrit, the first sentence could also have a passive reading, but then the agent should be defocused as with regular passives, e.g. *Yūyam (mayā) a-dr̥ś-ya-dhvam* 'You were seen (by me)'. The situation in Hindi is different: here the ergative system has pervaded all perfective tenses and an unambiguous ergative case marker (the postposition *ne*) has developed.

Another problem for classification is the occurrence of conflicting criteria: there can be an ergative system for noun case marking, but cross-referencing on the verb (and interclausal syntax) may still operate according to an accusative system. Such is the case in Burushaski, as we have seen, and as was discovered already by Leitner (1889: xiv) and Lorimer (1935, I: 65). But in addition, Burushaski has features reflecting an active, or, as we will call it, agentive, system (cf. Bashir 1985).

<sup>6</sup> In the following the gloss SUBJ will be used to subsume these functions.

## 1. GRAMMATICAL MAKE-UP OF BURUSHASKI

The Burushaski noun is inflected for five primary cases: absolutive (-Ø), ergative (-e), genitive-locative-instrumental (-e, f gen./obl. -*mol-mu-*), dative (-ar), ablative (-[*cs*]uml/-mo), and an odd dozen secondary local and circumstantial cases (e.g. superessive -*aṭ-e*, delative -*aṭ-um*, supralative -*aṭ-ar*, etc.). There are four grammatical noun classes, which affect large portions of the grammar (including plural endings and verbal agreement): two gender-based classes for humans (h): masculine (m) and feminine (f), and two genderless classes for non-humans, traditionally symbolized as x and y. The non-human classes are largely determined by the parameters of animacy, material, and physical shape. The x-class comprises all non-human animates (except female spiritual beings = f), and a fuzzy set of inanimates which are prototypically characterized by having a determined physical shape or by being made of wood, stone, or fabric or yarn, e.g. *huk* 'dog', *hunçs* 'arrow'. The y-class comprises the residue, i.e. collectives, abstracts, mass nouns, and inanimates prototypically not having a determined physical shape or being made of bone, horn, leather or metal (except utensils), e.g. *cshil* 'water', *jamé* 'bow (of horn)'. Often enough the same noun can be either x or y with systematic alteration of meaning, e.g. *bayú* x 'rock salt', y 'granular salt', *báalt* x 'apple', y 'apple tree', *tarkásh* x 'quiver made of wood', y 'quiver made of leather'. (For details, see Berger 1998, I: 33-38.)

In addition, some nominals and postpositions take an obligatory pronominal prefix indexing the possessor (in expressions of inalienable possession), experiencer, affected participant, or point of reference. E.g. *mi+ríng* '(our) hand', *mé+yarum* 'pleasing (to us)', *mi+wárum* '(we) tired, tiresome (for us)', *mé+pachi* 'near us'.

The (finite) verb is inflected by means of suffixes and prefixes for the logical subject (S/A), 'affected participant', verbal plurality<sup>7</sup>, tense, aspect, mood, polarity, and polar question. The morphotactic structure of a non-periphrastic finite verb can be represented by the following simplified scheme (abbreviations: NEG = negative, *d-* = a deverbal or denominative verbal prefix, P = pronominal prefix, -s- = 'transitivizer', √ = root or base, vbl. pl. = verbal plurality, asp.tns. = aspect/tense markers, st. = secondary tense formative, subj. = subject suffix, cond. = conditional, Q = polar question):

NEG-d-P+grade±s-√-vbl.pl.-asp.tns.-mood-subj.-Q

<sup>7</sup> A derivational category indicating, e.g., multiple-event (Tiffou & Patry 1995).

e.g.:

{*a-d-goo+s-√ghán-ch-a-m-cse-a*}<sup>8</sup> > *a-tú-ku+s-qa-y-a-m-cs-a*

NEG-d-2sg.+trans.-√wear out-ipf.-1sg.-st.-cond.-Q

'would I not have caused you (sg.) to become worn out?'

The pronominal prefix (P)<sup>9</sup> varies with person, number and (in the third persons) class (sg.: f, mxy; pl.: h, x, y [= y sg.]) of referent.<sup>10</sup> It comes in three different Ablaut grades (abbreviated here as PI, PII and PIII, e.g. *gu+*/*gó+*/*góo+* '2sg.')<sup>11</sup>, basically indicating differences in valence. P is simultaneously an inflectional and derivational category, because it serves to index a particular argument at the same time as it can be applied to deagentivize agentive intransitives (PI) and causativize intransitives (PII) and transitives (PIII), e.g. *girát-* (intr.) 'to dance' > +.*girat-* (trans. [caus. of intr.]) 'to make dance (PII = U)' > +.:*girat-* (caus./appl. [of trans.]) 'to cause to make dance (PIII = CAUS); to make dance for s.o. (PIII = APPL)'. (N.B. A dot after the plus sign indicates PII, and with the colon, standing for vowel doubling, PIII.)

Most non-agentive intransitives (9) and some non-agentive transitives (7) and ambivalent verbs (6) take PI, more rarely PII, indexing the patientive (inactive) hx subject or Actor. Agentive intransitives (8) and non-agentive intransitives with y subjects (10) do not take a pronominal prefix. (Some unprefixated verbs are ambivalent for agentivity or transitivity.) Most transitives, except those which prototypically govern y Undergoers, take PI or PII, (rarely PIII), indexing the hx (in some derived stems and inflectional forms also y) Undergoer, cf. (1), (2). In ditransitive verbs P indexes the dative recipient (3). PIII is, by and large, reserved for (pseudo-)causatives and applicatives<sup>12</sup>, indexing the absolutive causee (4) or experiencer, or

<sup>8</sup> If the root or base is given as unaccented, it is to be understood that the accent falls on the first postradical vowel, unless there is a prefix, which attracts it to a (pre)radical position.

<sup>9</sup> In verbs with a prefixed derivational *d-*, P appears as an *infix*, cf. (7).

<sup>10</sup> The set of pronominal prefixes is partly identical with the set of subject suffixes, but the latter encode primarily only number and class (1sg. and 2sg. (-a) are distinguished in most tenses by 'infixing' 1sg. before the final tense-aspect marker).

<sup>11</sup> PI represents the reduced grade, but may be accented. The full/strong ('*guna*') grade (PII) and its lengthened ('*vṛddhi*') version (PIII) are inherently accented, but may lose their accent due to accent retraction, which entails vowel reduction, e.g. *du-kóo(+∅)-m-a* 'you (sg.) came', but *a-tú-ku(+∅)-m-a* 'you (sg.) did not come'.

<sup>12</sup> Applicative refers to a device that promotes an oblique relation to object (and the name of the resultant construction) (Palmer 1994: 242, 161ff.). The Burushaski applicative (alias benefactive or affective, Morin & Tiffou 1988: 498ff.) differs from the prototype, because although it promotes a *dativus commodi incommodi* (dative of advantage or disadvantage) or 'pertinence genitive' (corresponding to the 'pertinence [possessive] dative', cf. Ogawa 1997: 2ff.) into the prefixal position in place of the Undergoer, it does not allow the former to appear in the absolutive case or even remain in the dative case (cf. 5). The historical reason for this is that the applicative forms derive from transitives with preposed dative pronouns. The distinction between causative and applicative can still be upheld in the Aliabad sub-

genitive or nominally unexpressed applicative (5). (For details, see Bashir 1985: 13-18; Berger 1992: 15f.; 1998, I: 111-125.) E.g.:

- (2) *In-e un gu+yeécs-o*  
 (s)he-ERG:A thou (ABS:U) 2sg.U+see-3sg.fSUBJ  
 'She saw you'
- (3) *Jáa ún-ar ghén-ang gu+ghún-a*  
 I:ERG:A thou-DAT:REC gold-PL(ABS:U) 2sg.REC-give:ypl.U-1sg.SUBJ  
 'I gave you large quantities of gold'
- (4) *U-e un jáa á+uy góo+s-qan-an*  
 they-ERG:A thou(ABS:CAUS) I:GEN 1sg.+father(ABS:U) 2sg.CAUS+TRANS-  
 be.finished-hpl.SUBJ  
 'They made you kill my father'
- (5) *U-e jáa á+uy áa+s-qan-an*  
 they-ERG:A I:GEN 1sg.+father(ABS:U) 1sg.APPL+TRANS-be.finished-hpl.SUBJ  
 'They killed my father on me'; lit. 'They killed me [of] my father'

The so-called 'transitivizer' *-s-* is a kind of 'causative passive' operator to be added after PII (or PIII) in transitives (or causative/applicatives) derived (ultimately) from *non-agentive* (incl. *deagentivized*) intransitives (cf. Bashir 1985: 8f.).<sup>13</sup> E.g. *+ghúrcs-* (deagentivized intr.) 'to be immersed, sink, drown (unintentionally; PI = pat. S)' [*<ghúrcs-* (agentive intr.) 'to immerse oneself, dive (intentionally)'] > *+s-qurcs-* (trans.) 'to immerse, make sink, drown s.o. (PII = U)' > *+..s-qurcs-* (caus./appl.) 'to cause to make sink, cause to drown s.o. (PIII = CAUS); to make sink for someone, drown s.o. for/on s.o. (PIII = APPL)'.

Of the postradical suffixes, only the subject suffix is obligatory, except in many forms of the non-indicative moods. Non-finite verb forms may contain all the preradical elements, as well as the postradical ones up to mood. The function of the non-finite forms is to nominalize, embed, and chain clauses (Tikkanen 1995).

Using the terms subject and object by stretching the analogy with accusative systems, the basic word order is SOV, with dependents preceding their heads, but often being cross-referenced on the latter. The morpheme order within the inflected verb would correspond to the word order OVS.

Ergativity is seen in case marking, as mentioned above (cf. (1)-(5)). There is an ergative split (use of the absolutive rather than ergative) in the personal pronouns

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dialect and in the Nager dialect, e.g. Ng. *gó+et-a < \*góor é+t-a* 'I did it for you', cf. Hz., Ng. *góo+t-a* 'I caused you to do it; I did it for you' (Berger 1998, I: 123). The applicative differs from the pseudo-causative, which expresses involuntary experience with an absolutive experiencer indexed by PIII, e.g. *Je qhus áa+t-i* 'I had a cough, I felt like coughing', lit. 'Me cough it caused to do' (cf. Finnish *Minua yskitti* 'It caused me to cough').

<sup>13</sup> Normally transitives can be derived from agentive intransitives simply by prefixing PII or PIII. Some agentive intransitives correspond to transitives with *-s-*, but then the meaning of the base has shifted to being non-agentive, e.g. *daghá-* 'to hide oneself' > *+..s-taqa* 'to hide s.o. (lit. to cause s.o. to be hidden)'.

of the first and optionally of the second persons in the future tense (incl. cohortative present) and in the conditional and imperative moods (Berger 1998, I: 64f.). This split does not change the system to an accusative one, as there are no accusative case forms. The Yasin dialect does not have this split, but it has no ergative form at all for the second person singular (Tiffou & Morin 1982).<sup>14</sup>

In addition, there is an ergative split conditioned by verbal semantics: Some non-agentive/deagentivized (am)bivalent verbs denoting receiving and certain prototypically non-volitional cognitive processes are subcategorized for two absolutes, an animate Recipient or Experiencer (A) and a Theme (U), with the verb agreeing doubly with A (the 'affected subject')<sup>15</sup>, cf.:

- (6) *Je*            *ʃhapík*            *a+yá-ya*  
 I(ABS:A)    bread(ABS:U)    1sg.SUBJ+get-1sg.SUBJ  
 'I got bread'
- (7) *Je / (Jáa)*            *chágha*            *d-á+yál-a*  
 I (ABS/ERG:A)    story (ABS :U)    d-1sg.SUBJ+hear-1sg.SUBJ  
 'I heard the story'

Ergativity is furthermore reflected on the lexical derivational level in the expression of verbal plurality and/or class & number based stem variation or suppletion of some verbs according to the absolutive medium, e.g. *gíy-* 'to enter; pour into' > *gi-(\*)yá-* 'to enter (of many subjects or objects); to fall (of snow and hail); come down (of rainbow); be the loser in polo'<sup>16</sup>; *shé-* (y U) / (+)ʃhí- (hx sg. U) / +ʃhú- (hx pl. U) 'to eat, slaughter (P = U)'; +*chhí-* (y sg. U) / +*ghún-* (y pl. U) / +*ú-* (hx U) 'to give (P = REC)'.

Verbal agreement functions on an accusative basis, implying the identification of the ergative agent or absolutive Actor with the intransitive medium/subject (S),

<sup>14</sup> Lorimer (1935, I: 64f.) grossly exaggerated the ergative split, partly because he did not perceive subtle yet crucial phonological distinctions, e.g. *in(é)* (abs.) '(s)he' > *ín-e*, *iné-e* (erg.); *mi* (abs.) 'we' > *mí* (erg.). In trying to establish a metric for ergativity in South Asian languages, Klaiman (1987: 66) mentions the tense-aspect conditioned ergative split in Burushaski; but she does not point out that it only involves a few pronouns, although she makes reference to Tiffou & Morin (1982). Dixon (1994: 99, 104) wrongly concludes that the ergative is only used in past-based tenses and only in nouns and singular pronouns.

<sup>15</sup> These verbs include: *d+.yál-* 'to hear, listen, understand', *d+.chan-* 'to need', *d+.i-* 'to perceive a smell', *d+.:ikin-* 'to learn (from experience)', *d+.:ghurk-* 'to find, get', *+yá-* 'to hit, strike against, fit into; come upon, get, find'; *ghar-* 'to speak, bellow, sound', *+.:man-* 'to be capable of; lord over, master', *til +.:l-* 'to forget'. Most of these seem to have started out as intransitives or pseudo-causatives. The reason why they should now be considered transitive (in some of their meanings) is that they can take absolutive complements. This has led to anomalous constructions like (7), where the Actor can take the absolutive or ergative, while P continues to agree with A rather than with U (cf. Berger 1992: 20).

<sup>16</sup> Attention may be paid to the change of meaning, corroborating that the verbal plurality suffix *-ya-* is not an inflectional agreement marker (cf. Tiffou & Patry 1995; Berger 1998, I: 130).

cf. (1)-(10).<sup>17</sup> The agent can be omitted in the syntactic passive, which promotes U to S, e.g. *ín-e* (A) *duró* (U) *échéi* 'he is doing the work' => *duró* (U:S) *étum bilá* 'the work is (being) done' (cf. Morin & Tiffou 1988). The syntactic 'ghost' subject (S/A) defined by these criteria is pivotal in syntactic processes involving coreference such as 'same-subject' converb formation (Tikkanen 1995: 488f., 496).

An underlying agentive system can be seen in the fact that patientive intransitive hx subjects (and some non-agentive transitive Actors) are cross-referenced on the verb not only by subject suffixes, but also by pronominal prefixes, which mark affected (or effected) participants, cf. (6), (7), (9). The verbs or verbal expressions in question denote uncontrolled motion or (changes of) states, e.g. 'to fall', 'to die', 'to be ill', etc. Many verbs display so-called fluid-S marking, depending on whether or not the subject can control the activity, e.g. (+)*man-* 'to become, be (due to some external force)':<sup>18</sup>

- (8) *In*                    *wakíl*                    *man-íí*  
 (s)he(ABS:S)    lawyer(ABS :COMPL)    become-3sg.mxySUBJ  
 'He became a lawyer (by his own effort)'
- (9) *In*                    *shon*                    *i+mán-i*  
 (s)he(ABS:S)    blind                    3sg.mxySUBJ+become-3sg.mxySUBJ  
 'He became blind (owing to some external cause)'
- (10) *Cshil*                    *chhaghúrum*    *man-íí*                    /                    *du-chhághur-i*  
 water(ABS:S y)    cold                    become-3sg.mxySUBJ    d-cold-3sg.mxySUBJ  
 'The water turned cold'

Agentivity is also reflected in the fact that y Actors are promoted to x status in transitive clauses in terms of verbal agreement. The idea is that y class referents rank lowest in the animacy hierarchy and hence enter a marked role as transitive Actors.

As a conclusion we can now draw a parallel between the structure of nominals and the structure of verbs: both may have a preradical slot for P in addition to a postradical slot for plurality. In nominals P supplies the participant which is seen as inseparable from or being affected by the entity or experience or relation in question. In verbs P generally supplies the participant which is medial to or (empathically) affected by the verbal process.

<sup>17</sup> The only verb which does not take subject suffixes, is *d+(.)ya-* (perfective or aorist base) 'to come' in the conative (Hz.) alias first aorist (Ys.). Although semantically an agentive verb, it does take pronominal prefixes (normally indexing the patientive subject), e.g. *d-áa(+Ø)-ya* 'I came'.

<sup>18</sup> Patientive-marking does not hinder subjects from being interpreted as agentive under special readings or in special contexts (e.g. *Chágha du-kó+yal!* 'Listen to what I say!' [lit. 'Listen to story!']). Inanimate x (but not y) subjects, which can only take part in non-volitional processes, may yet redundantly be marked as patientive, e.g. *dan thraq i+mán-il/man-íí* 'the stone got cracked' (Berger 1992: 16).



## 2. THE PREFIXES *d-* AND *n-*

### 2.1. Morphophonemics and morphotactics

The allomorph *d-* is used only when a pronominal prefix starting with a vowel follows, e.g. *d-á+cs-i* 'he brought me'. If *d-* is followed by a consonant-initial pronominal prefix, an epenthetic vowel (*V*) copying the timbre of the vowel of the latter is inserted, e.g. *du-kóo+cs-i* 'he brought it for you'. If *d-* is directly followed by the base, a fixed or harmonic buffer vowel *-u-* or *-i-* intervenes, e.g. *du-ghárus-* 'to ask', *di-é-* 'to stand (up)'. *N-* behaves in the same way, except that it does not interpose a vowel before a vowel-initial base, while the epenthetic vowel before a consonant-initial base is always *-u-*, e.g. *n-óos* 'having put down', *nu-hér* 'having cried'.

In spite of their distinct functions, the prefixes *d-* and *n-* occupy the same morphotactic slot in the verb structure and share many morph(ophon)emic properties with each other as well as with the negative prefix *a(y)-*. All these prefixes retract the accent to the second syllable or to the pronominal prefix with subsequent devoicing of a following voiced prefixal or radical stop (e.g. *a-tú-ku+tal-um-a* 'you (sg.) did not wake up' < †*a-d-gu+dál-um-a* < *dal* 'up, above', cf. *a-kú+del-a-m* 'I did not strike you' < *gu+dél-a-m* 'I struck you'). After *d-* the devoicing rule does not apply to the initial stops of verbal bases nor even to the initial stops of all nominal bases (e.g. *du-ghárus-* 'to ask', cf. *a-qáris-a-m* 'I did not agree' < *gharís-* 'to agree'; *di-bíran-* 'to be filled' < *bir* 'full'). Pronominal prefixes tend to cause lenition/deletion rather than devoicing (and aspiration), e.g. *gán- / +yán-* 'to take', but *gukór- / +khókur-* 'to peel'. In not a few instances *d-*, too, causes lenition/deletion with verbal bases (e.g. *di-áarcs-* 'to rain' < *gáarcs-* 'to pour down').

This kind of devoicing is possibly a restoring process (cf. *khót/guté* 'this (y)') connected with accent shift, because it is not due to assimilation (*d-* and *n-* are by themselves voiced and, moreover, always followed by a vowel; contrast devoicing after *-s-*, which is voiceless and almost never followed by a vowel). On the other hand, devoicing increases the paradigmatic distance between forms. Therefore it is natural that *d-* causes devoicing when it functions as a denominative rather than deverbal prefix, which is its primary function. It can hence be said to be more deeply integrated in the verb structure than *n-* (the stronger juncture between *n-* and the base is also signalled by lack of vowel harmony in some cases). The latter, on the other hand, is more deeply integrated in the verb structure than *a(y)-*, which restores occlusion of *h* to *kh* in the root *hén-* 'to know, learn' (*a-khén-* 'not to know', cf. *nu-hén* 'having known', +*yeén-* 'to know (a person)', but contrast *oó-ar-* < \**a-ú-her* 'not to cry', cf. *nu-hér*). The syntagmatic order of the prefixes reflects the integration hierarchy: *a-n/d-P-s*. The semantic scope order would have predicted †*a-n-P-d-s* or †*a-n-P-s-d*, since negation as the outermost sentential operator has

scope over the whole verb, and inflectional morphemes have scope over derivational ones.

Other differences between *d-* and *n-* are that *d-* must be followed by a dummy vowel before vowel-initial bases (perhaps reflecting the loss of a base-initial consonant), and that normally only *d-* can be preceded by the negative prefix *a(y)-*. This is not a semantically motivated constraint, as the negative converb is supplied by the negative 'past participle'. Unlike the *-s-* prefix, *a-*, *d-* and *n-* do not presuppose a preceding pronominal prefix, but they can be followed by a (variable or petrified) pronominal prefix. (For details, see Berger 1998, I: 107-110; for the Yasin dialect, see Berger 1974: 32f., 42f.; Tiffou & Pesot 1989: 37, 47.)

## 2.2. Semantics of the *d-* prefix

As regards the meaning(s) of the *d-* prefix, opinions are still divided. Leitner (1889: xiv), one of the pioneers of Burushaski scholarship, thought that *d-* "stands generally for a condition in which one is seen, struck, or otherwise subordinate or passive...". Using Bleichsteiner's (1930: 318) paraphrase, *d-* would thus express "the neuter or the passive result of an action". Bleichsteiner compared it with the Georgian suffix *-d-*, which forms intransitives and passives, but pointed out that Burushaski *d-* is also applied to transitives, insofar as this term can be justified, e.g. *d-é+gharus-(\*c)h-a-m* 'I will ask him' (for a discussion of this verb, see below).

Lt. Col. Lorimer published a far more detailed description of Burushaski (1935-1938) than any of his predecessors. He documented approximately 100 basic *d-*-prefixed verbs (derived from unprefixed bases), together with some 40 secondary transitives and causatives derived from them. He observed that *d-* is particularly frequent in basic intransitives derived from or corresponding to unprefixed transitives (e.g. *du-qhár-* (intr.) 'to split, open up' < *+qhár-* (trans.) 'to split, cleave') and denominatives (e.g. *d+.s-papal-* (trans.) 'to whirl away (of wind)' < *bábal* (adj.) 'suspended in the air'), but he was unable to detect any general principle shedding light on its application. Concluding that it cannot originally have been without significance, he left it to future enquirers to find out whether it still possesses any meaning or function (Lorimer 1935, I: 226).

Commenting on this prefix in his synchronic and diachronic study of Burushaski phonology, Morgenstierne (1942: 81, n. 4), too, professed that the original function of *d-* has faded away. However, he suggested that "it was probably an indication of direction, signifying that the action took place in the direction of the speaker, somewhat like Pashto *-raa*." Morgenstierne did not exemplify or elaborate on this hypothesis, but in support of it one could mention some semantic and/or etymological intransitive, transitive and causative verb pairs denoting motion, where the *d-*-prefixed members view the movement as directed toward the speaker (or the

person/place whose point of view he is adopting, i.e. the deictic centre), whereas the corresponding *d*-less members view the movement from the opposite perspective or without any specific deictic orientation. (Regarding the notions of deictic centre and deictic projection, cf. Lyons 1977: 579 and Levinson 1983: 64.) E.g.:

- (i) a. *(du-)sú-* / *d+cs(u)-* 'to bring (here), fetch (P = hx U)' < b. *(+)cshú-* 'to take away, take to another place, carry off; marry a woman (P = h U)'<sup>19</sup> >>  
 a. *d+.:cs(u)-* (caus./appl.) 'to cause to bring/fetch, send for, bring to s.o. (P = CAUS/APPL)'; *d-óo-cs(u)-* (trans. [< caus.]) 'to send (a thing or animal by human instrumentality) here / to s.o. (as regarded from the point of view of the destination/recipient; P = fossilized 3pl.h CAUS)';  
 b. *+.:cshu-* (Ng.) (caus./appl.) 'to cause to take away, etc. (P = CAUS/APPL)'; *óo-cs(u)-* (trans. [< caus.]) 'to send (away), dispatch (as regarded from the point of view of origin; P = fossilized 3pl.h CAUS)';
- (ii) *d+.:r(i)-* (trans.) 'to send (a person) here / to s.o. (as regarded from the point of view of the destination/recipient); spread, lay out (bedding, etc.; P = U)' < *+.:r(i)-* (trans.) 'to let go, send (a person or animal) away, remove, spend (property, time; P = U)' [functions as the causative of *ní-* 'to go'];
- (iii) *d+(.):ya-* (perfective or aorist stem) 'to come (along, up(on)), approach, arrive, turn out, appear (P = S)' < ? *+yá-* 'to strike against, hit (+ adess.)'; vs. *ní-* 'to go'.

- 11) *Saladáare tughulí dícsimi Buzúr Jamhúur épachar... Ye gusé khash ne nípațar ésomucs ke ékin jájam ne éer cshu! Dáa jáa háalar hik dukóoras báí.*  
 'Saladar brought (*d-f+cs-im-i*) the lamb to Buzur Jamhur... [who said:] "Well now, slay it and skin it and roast its kidneys and liver and take them (*cshu*) to [Alqash]! Then he will send you (*du-kóo+r-as*) once again to my house..."  
 (Lorimer 1935, II: 68, ll. 8-9.)
- 12) *Isé úmo watánar óocsumi: Gusé bélațe dímani bim ke, désman dóocsuin! Cshúman Kisáre dukánațar. Désman dóocsuman.*  
 'He [=Pangchu] sent it off (*óo-csu-m-i*) to his own country [with an instruction:] Make it as it was before and send it [back] here (*d-óo-csu-in*)! They took it away (*cshú-m-an*) to Kisar's shop. They made it [as it had been] and sent it back (*d-óo-csu-m-an*).'  
 (Lorimer 1935, II: 166, ll. 11-12.)
- 13) *Gos dukóocsase gos góorchi.*  
 'He who heartens you will also dishearten you.' Lit. 'He who brings your heart for you (*du-kóo+cs-as-e*) he will send your heart away from you (*góo+r-ch-i*).'  
 (Tiffou 1993: 34.)

<sup>19</sup> Berger (1994: 6) derives *d+cs(u)-* from *(du-)sú-*, but even so, the latter is likely to be connected with *(+)cshú-*. In *(du-)sú-* (y U) the prefix is obligatory in the converb and negative conjugation, suggesting that it was once obligatory in all forms.

In fact, in these verbs the *d*-prefix indicates not only the movement of some participant(s) of the predication in the direction of the deictic centre, but the actual attainment of the goal or destination in question. This might explain why *d*- does not occur in the aspectually unmarked (imperfective) suppletive stem *jú*- 'to come'.

On the other hand, it is easy to come up with counterexamples, i.e. *d*-prefixed verbs where the movement is independent of the deictic centre (cf. the secondary meanings of *d+..r*- 'to spread out, etc.'), or where there is no (concrete) movement at all, e.g. *di-r-/d+ri*- (intr.) 'to cook, be cooked, ripen'. If, then, *d*- originally was a deictic directive (or, more specifically, terminative) prefix, both the deictic and directive component must have been liable to be reinterpreted to explain the majority of all *d*-verbs. It is well-known that (basically) deictic morphemes can develop in different ways through shifts of the deictic centre, even to the point of losing their deictic content, cf. Levinson (1983: 64, 83f.) on the English verb 'to come', and Deeters (1930: 10f.) on semantic shifts of deictic directive prefixes in South Caucasian (cf. also Vogt 1971: 172ff.; Hewitt 1995: 148ff.).

Some of the counterexamples can, in fact, be tackled by appealing to the notion of a generalized or 'global' deictic centre, as in the semantically specialized weather verb *di-áarcs*- 'to rain (i.e. to pour down hither)' < *gáarcs*- 'to run, gallop, flee; pour down'. A semantic parallel can be cited from Georgian: *tovs* 'it snows', aorist *mo-tova*, where *mo-* is a preverb expressing direction toward the speaker (Fährnich 1987: 100, 71; Vogt 1971: 94, 172-174). Consider also the verbalizer 'to come' in conjunct weather verbs, e.g. Burushaski *harált jú*- 'rain to come = to rain'.

In most cases, however, the deictic value has been attenuated or lost, leaving the bare sense of goal-oriented movement or, with non-motion verbs, focus on (a particular class of) object or resultant state. Thus in many intransitive and transitive verbs *d*- adds the notion of (concrete or metaphorical) attainment of a (specific or salient) target, goal, resultant state or final destination (of the subject or [implicit] object), as usually associated with idiosyncratic collocational restrictions often characteristic of activities that are of human interest (perhaps as a reminiscence of the original here-deictic value of *d*-). E.g. *du-ghárus*- (semitrans.) 'to ask (from = abl.) < \*to be straightly directed toward s.o.'<sup>20</sup> / *d+.gharus*- (trans.) 'to ask, question, address a person (P = U) < *gharús*- (intr.) 'to be directed straight, aimed, take a straight course; be useful, be fitting'; Ys. *d+.sal*- 'to regard, watch, consider (P = U)' < (Hz., Ys.) *+..sal*- 'd.o.'; *di-gía*- (non-agt. intr.) '(seed) to be ground and

<sup>20</sup> Semitransitive is defined here as a two-place verb, which takes an oblique rather than absolutive complement. Historically such verbs seem to have been intransitive motion verbs, where *d*- adds the notion of attaining a specific target, then reinterpreted as 'direct object' through a meaning shift (cf. fn. 15). In this verb the prefix specifies the attainment of a (human) target. Because of a metaphorical shift of meaning the case frame has changed from dative to ablative. In an old Nager text, *du-ghárus*- is twice construed with a dative complement in agreement with the basic meaning of the root (*iné-er du-ghárus-um-an* 'they asked him', Leitner 1889: 246; cf. Lorimer 1938, III: 135).

fall down (from the hopper into the mill) < *gi-á-* (pl. stem of *gíy-*) 'to fall down'; *d+gíy-* (trans.) 'to cut down (wood) and bring it into the village; take out grain from the funnel of the water-mill when the water has stopped running (P = U)', *d-ú-guy-* (trans.) 'to shake down (fruit); shoot (many birds); fasten (bolt)' << *gíy-* [*gúy-* hx pl. U] (intr./trans.) 'to go into, enter (into), fall upon; insert, throw down, sow, pour into, plant, strike, cut down (P = U)'; *d+.i-* / *d+.ya-* (non-agt. trans.) 'to perceive (a smell; P = A)', *d+.yal-* (non-agt./agt. trans.) 'to hear, understand [Ys. also: 'perceive a smell'] (P = A)' < ? *+yá-* (non-agt. intr./tr.) 'to hit or strike against (+ adess.), fit into, (be able to) go into, come upon, find, obtain, receive (P = A)'; *du-mán-* / *d+man-* (non-agt. intr.) 'to come into being, be born, be produced, take shape, take solid form, freeze, coagulate, curdle (P = pat. hx S)' < (+)*man-* ((non-agt.) intr.) 'to become, be'.

By metaphorical abstraction the sense of movement to a place may give rise to the sense of movement (transition) to a state or condition<sup>21</sup> (and by implication remaining in the entered state). This reinterpretation would explain the most productive function of *d-*, viz. as a detransitivizing device for deriving (passive and stative) intransitives and anticausatives<sup>22</sup>. In these verbs, too, semantic shifts are common and some verbs may have meanings corresponding to different function of *d-*. E.g. *du-phús-* (pass./stat. intr.) 'to be tied, bound; stay at home idle' < *pus-* / *+phús-* (trans.) 'to tie, bind (P = hx U)'; *du-tásk-* (anticaus.) 'to be(come) stretched, to be elastic' < (+)*task-* (trans.) 'to draw, pull (P = hx U)'; *du-móq-* (intr.) 'to fall out (of hair)' < *+móq-* (trans.) 'to pull out (hair), pluck (P = U)'; *d+.uruṭ-* (intr.) 'to be settled (in a place), take up one's residence; to no longer be able; have one's heart attached to, thrive, be fond of (P = pat. S)' (= Ys. *d+.huruṭ-* 'to remain sitting, remain in one's place, be fond of (a place, etc.)') < *+uruṭ-* (trans.) 'to cause to sit, seat, cause to settle down (P = U)' < *huruṭ-* (intr.) 'to sit (down), settle (down), stay, dwell'; *du-yár-* (intr.) 'to graze' < *+yár-* (trans.) 'to pasture (P = U)'; *du-hákin-* (intr.) 'to learn, become trained, become versed' < *hákin-* (trans.) 'to learn, study, pursue studies', etc. (Cf. also the verbs mentioned in fn. 15.) Secondary transitives on this type of bases are also frequent.

By generalization to nominal and adverbial stems *d-* hence developed into a denominative prefix, deriving resultative/stative intransitive and (secondary) transitive verbs from adjectives, nouns and adverbs. E.g. *du-çhaghur-* / *d+çhaqur-* (intr.) 'to be(come) cold (P = pat. hx S)' < *çhaghúr-um* (adj./noun) 'cold; chill,

<sup>21</sup> The same semantic development has occurred in the Finnish verb *tulla* 'to come; => to become'. As a detransitivizer *d-* functions, in fact, as the logical operator BECOME.

<sup>22</sup> The term anticausative or mediopassive is used to refer to verbs which denote spontaneous occurrences, i.e. events which do not imply external agency. In English the term 'neuter' is traditionally used with the same meaning for the intransitive member of homophonous intransitive and transitive forms such as 'to break' (Palmer 1994: 143). But note that (especially in Yasin) Burushaski *d-* can also derive agentless passives, where an agent is implied but not expressed (cf. Morin & Tiffou 1988).

cold season'; *du-cshán-* (intr.) 'to become straight; come true, be fulfilled' < *cshan* (adj./noun) 'straight, correct, true; truth, right'; *d+.chan-* (trans.) 'to want, be in need of (P = pat. S)' < *du-chhán-* (intr.) 'to become narrow, restricted' < *chhan-úm* (adj.) 'narrow'; *do-óngghur-* (intr.) 'to bend, bend over (of a tree), lean over (side of horse when playing polo)' << ? Sanskrit *ānkurá-* (adj./noun) \*'hooked', 'sprout' (Turner 1966: # 109); *di-khír-* (intr.) 'to become less, decrease, wane', cf. Ys. *khír-an* (noun/adv.) 'a little bit'; *du-ltápu-* / *d+ltapu-* (intr.) 'whither, dry (of plants, fruits, people; P = pat. hx S)' < ? *tap* (noun) 'leaf'; *du-máay-* (intr.) 'to make peace with, come to terms with, arbitrate, reconcile (agt. hx S/A); fit, suit, be convenient (y S)' vs. *d+may-* (intr.) 'to live in peace with, be on good terms with, be friends with; fit, suit, be convenient (P = pat. hx S/A)' < *máyo* 'fine, penalty, compensation'; *di-shá-* (intr.) 'to be stopped, dammed up (of water), to be impeded (of breath)', cf. *d+.(s)csa(y)-* (trans.) 'to stop, dam up (water); close (sluice; P = U)' < *+cshá-* (trans.) 'to fix or fasten (dry thorn bushes on a wall to make it impassable; P = U)' < *csha* (noun) 'place of enclosure for game' ("Lagerplatz der Steinböcke [ng. auch Bären], in dem sie hufeisenförmig eingeschlossen sind", Berger 1998, III: 73); *d+.:csali-* / *d+.:(c)sasal-* (trans.) 'to sort out (grains on floor; P = U)' < ? *chsal* (noun) 'heap of grain (as formed when winnowing)'; *d+tal-* (intr.) 'to wake up; rise (of sickness, etc.; P = pat. S)' < *dal* (adv.) 'up, above'.

A particular subgroup related to the two last-mentioned categories are the *d*-prefixed pseudo-causatives denoting (mainly non-volitional) mental or bodily states or conditions, where PIII indexes the absolutive experiencer or 'affected subject'. These verbs are derived directly from intransitives and anticausatives; a few may be denominatives. E.g. *d+.:ghas-* 'to smile, be in a laughing condition, laugh (positively)' (cf. *+.:ghas-* 'to make laugh (at) (P = CAUS)') < *ghas-* 'to laugh [deridingly] (at = adessive)'; *d+.:ghan-* 'to (be)grudge, stint'<sup>23</sup> < *du-ghán-* / *d+ghan-* 'to be worn out, exhausted, wear out, become old, be used up'; *d+.:pirkan-* 'to stumble (of people and animals)' < *phirkán-* 'to rock, totter (as of a stone which one is trying to lever out of its position)'; *d+.:man-* 'to fall asleep, grow numb (of body parts; P = APPL/S)' < *du-mán-* 'to come into being, take shape, become solid, coagulate, curdle (y subj.)' < *(+)man-* 'to become, be'; *d+.:ghay-* 'to itch'; *d+.:matal-* 'to yawn'. These formations can be compared with pseudo-causatives with a noun indicating a particular physical sensation or condition (see fn. 12).

The residual verbs include many intransitives (and secondary or reinterpreted transitives) denoting or implying movement, usually in some specific direction (e.g. forth, out, up, down, away), and/or the attainment of a specific goal or final resultant state. The problem is that the isolation or ambiguity of the root/base renders

<sup>23</sup> E.g. *Búshe mamú shéyasa atáaghaya baa. Yuúmus làásh étasa aqhóljlilá* 'I do not begrudge (a-t-áa+gha-y-a bá-a ) the cat's drinking the milk. What hurts me is its licking [its lips with] its tongue [afterwards].' (Tiffou 1993: 25, # 1020.)

the analysis hazardous. E.g. *d+ .shqalt-* (intr.) 'to arrive (at), reach, move ahead; come to someone's share (P = pat. S)'; *di-phircs-* (intr.) 'to come out, come loose, sprain; escape' (Ys. *de-phércs-* 'to be eradicated'); *du-shún-* (intr.) 'to come undone, be(come) loose or unbound'; *du-shúshun-* (intr.) 'flow forth (of milk from the breast)'; (*d*)+. *ghuñin-* (trans.) 'to empty (a large vessel; P = U)', *d-óo-ghuñ(in)-* (intr.) 'to ooze out (of water), dry out'; *di-míy-* (intr.) 'to be spilt, fall'; *du-úy-* (intr.) 'to melt'; *di-ghín-* (intr.) 'to run down a steep place, rush down'; (*du-*)*sók-* (intr.) 'to descend'; *d+.s-qaṭ-* (trans.) 'to choose, sort out, clear up, examine, decide (a case; P = U)' < *du-gháaṭ-* (intr.) 'to be separated, sorted out, selected, cleared, settled'; *di-é-* (Ys. also *di-yé-*) (intr.) 'to stand (up), rise'; *du-ún-* (Ys. *do-hón-*) (semitrans.) 'to grasp at, seize, lay hold of, catch (U = adess.); begin'; *d+mar-* (trans.) 'to take s.t. from (the hands of) s.o. (= P), unload a person (P = U)' < *dú-mar-* (semitrans.) 'to demand, ask, request, want (from = abl.); respond to, answer'; *d+.gus-* (caus/appl.) 'to cause to extract/take off, pull out, draw out, reveal (P = CAUS/APPL)' < *d+us-* (trans.) 'to pull/take/draw out, extract, produce (P = U)' < *du-ús-* (intr.) 'to come out, emerge, go out; rise, climb (up)', cf. *u-ús-* / *+us-* (trans.) 'to carve, hollow out, scrape out (P = U)'; *d+.yan-* (trans.) 'to cut away (meat), cut a tree, prune, cut down (a share), pare, whittle (P = U)'; *du-mács-* / *d+mács-* (trans.) 'to wrap up, fold (up); to remove and stack cut crops (P = hx U)'; *d+.mi-* (trans.) 'to gather, accumulate, acquire; collect and store (crops, fruit; P = U)', cf. Ys. *de-hémia-* (intr.) 'to gather, be accumulated'; Ys. *di-ár-* (trans.) 'to sell' < \**di-gár-*, cf. *garçh* (noun) 'price, payment' < \**gar-ş*.

The meaning range of *d-* is vague enough to allow non-prefixed verbs to have similar meanings as etymologically unrelated *d*-prefixed verbs. E.g. *bal-* / *+wál-* 'to fall down, make its appearance, find oneself in, land in, settle down (P = pat. hx S)', cf. *do-ór-* (Ys. *do-hór-*) 'to fall down (of cliff, stones, house), crumble', *di-yágan-* 'to collapse, fall down (of wall); dash down a lane (of water, earth, people)'.<sup>1</sup>

For some reason or other, Morgenstierne's suggestion has not been taken seriously or at least utilized in synchronic descriptions. In his monograph on the Yasin dialect, Berger (1974: 29, 32) states that the majority of the *d*-prefixed verbs are intransitives, or transitives with PII, and that except when deriving intransitives from transitives by the means of PI (e.g. *de-xés-* 'to be torn' < *+xés-* 'to tear'), the *d*-prefix lacks any particular function in contemporary Burushaski.

Challenging Berger's conclusion, and being unable to make anything out of Morgenstierne's "tantalizing comment", Elena Bashir (1985: 19-25) approached the problem within the typological framework of Klimov's active-type languages. Proposing that the *d*-prefix functions in the transitivity system, she classifies the *d*-derivatives under four major categories, viz.

- (a) inchoative (transition to a state, e.g. *di-khír-* (intr.) 'to decrease'),
- (b) stative (e.g. *d+may-* (intr.) 'to be on good terms with, fit'),
- (c) descriptive (involving non-controlled motion, e.g. *du-phált-* (intr.) 'to burst (of gun, dam, boil, blister)'), and
- (d) active (involving controlled physical action, e.g. *d+qar-* (trans.) 'to split, divide'),

where the last-mentioned class consists mainly of derived transitives based on inchoative or stative prefixed intransitives.

Having analyzed a large number of verbs and their uses (drawing also on some of Berger's vaster, at the time mostly unpublished material), she came to the conclusion that the *d*-prefix "at the most general level functions to distinguish process/state/result-oriented verbal conceptions from actor-oriented ones" (Bashir 1985: 19). According to Bashir, the *d*-mechanism is the chief source of inchoative and stative verbs ("from which intransitivity follows as a natural consequence"), and, aside from conjunct verb formations, the only source of denominal verbs from adjectives.

Focus on the (end) result of the action rather than on the actor(s) is illustrated by verb pairs such as *du-wál-* (intr.) 'to fly, fly away (of bird, or fairy)' > *d+.wál-* (trans.) 'to make (bird, etc.) fly away (P = U)', cf. *+.wál-* (trans.) 'to winnow (make fly); distribute (P = U)'<sup>24</sup>; *du-úshkin-* (intr.) 'to flow away, disperse, be lost (of water), dry (of towel)' < *hushkín-* (intr.) 'to drip out (of small amounts of water)'. Focus on destination/recipient vs. origin is exemplified by deictic motion verbs of the type already mentioned in connection with Morgenstierne's hypothesis, but also by other verbs, such as *d+.mas-* (trans.) 'to give away (to), deliver, yield'<sup>25</sup> < *+.mas-* (trans.) 'to reach out (with the arms); stretch forward or down to s.o.' (< *mas-* [intr./trans.] 'to stretch out the hand to s.o., long for').

In many verb pairs it is shown that the difference of result/destination- vs. origin-orientation has resulted in a semantic shift, for instance *d+was-* 'to remain, survive' < *bas-* 'to sit down, settle, come to rest' [the etymological connection is uncertain]; *du-ltálan-* 'to become fruitful, bear fruit' < *talén- / +ltálan-* 'to go round, cross over (a pass), return, circle round (of bird, aeroplane); change into, become (P = pat. S)', cf. Yasin *du-ltálen-* 'rise (of fat when preparing sherbet), be transformed (sherbet)'. However, *d+ghunja-* (intr.) 'to be calm, patient (P = pat. S)'

<sup>24</sup> Lorimer (1938, III: 151) suggested that these verbs could be denominatives from *bal* 'suspended, hanging, dangling', in which case they would not qualify as examples in this context. It is even probable that *du-wál-* originally meant only 'to fly', since we can still say *du-wál-j-um-e jú-as* 'to come flying' just as well as *du-wál-j-um-e ní-as* 'to go flying = fly away'. Cf. also *balás* '(big) bird'.

<sup>25</sup> Berger (1998, III: 282) translates *d+.mas-* as 'hergeben', and *d+..mas-* as '(ew. mit der Hand) erreichen', but *d+.mas-* seems also to mean 'receive', i.e., more generally, 'stretch out the hand to s.o. in order to give or receive', cf. the proverb *Émas ke démas!* 'Give and you will receive!' (Tiffou 1993: 85).



is from *+ghúnja-* (trans.) 'to bring into difficulties, render quiet/speechless (P = pat. U)' rather than from *+ghúnja-* (intr.) 'to become eclipsed (of the sun, moon; P = pat. S)'. In *d-úlja-* / *du-súlja-* (intr.) 'to be full (of food), sated, have enough' < *huljá-* (intr.) 'to be(come) complete, finished, (time) to come to end, grow into full size (of fruit); mount (horse), ride' the essential difference appears to be in the selectional restriction on subject (human vs. non-human).

Also in many other examples it could be objected that the base itself is an accomplishment verb (telic) and then *d-* merely entails some idiosyncratic collocational restriction (although there may also be some extra focus on the end result), e.g. *d+.csi-* (trans.) 'to pull in, pull up (belt, etc.), rein in, squeeze, pinch (of tight coat, boots, etc.), finish (work), close (door; P = U)' < *+csi-* (trans.) 'to trample, press down, suppress (P = U)' [< *cshí-* (intr.) 'to go down, subside; catch fire']; *d+.ul-* (trans.) 'to thread (a needle; P = U)' ≈ *+l-* (trans.) 'to thread (a needle); insert (axe, handle into blade; P = U)' [> ? *d+.l-* / *+dél-* (trans.) 'to beat, strike, hit, shoot, slay, bite; put on, apply, fix, sprinkle (P = U)']; *d+.s-qul-* (trans.) 'to fry (vegetables), brown (onions) in oil (P = U)' < *+s-qul-* (trans.) 'to burn up, roast, scorch (P = U)' < *ghulú-* / *+ghúl-* (intr.) 'to burn, be burnt (P = U)'. In some cases the base is an activity verb (atelic), and again *d-* only limits the activity to a specific type of subject or object (which may entail a semantic shift) rather than bringing about a change of aspect or transitivity, e.g. *d+.qulan-* (trans.) 'to knead (dough; P = U)', cf. *+qhól(an)-* (trans.) 'to cause pain, ache, hurt (P = U)' [for the semantics, cf. Finnish *vaivata* (trans.) 'to irritate, cause pain; knead (dough)'].

A more serious problem with Bashir's generalization is those (basic) *d-*verbs that differ from their *d-*less correlates solely in terms of deixis, e.g. *(du-)sú-* / *d+cs-* 'to bring' vs. *(+)cshu-* 'to take away'. If in these cases *d-* merely stresses the end result or reaching the destination, *(du-)sú-* / *d+cs-* should mean 'to take away (there/to a final destination far away from the speaker)'. Alternatively, with the inchoative (passive intransitive) reading, it should mean 'to be taken away', cf. *du-tásk-* 'to be(come) stretched, be elastic' < *(+)task-* 'to draw, pull (P = hx U)'.

This is not to deny that many of the *d-*prefixed verbs can be characterized in the terms proposed by Bashir, and, in fact, the semantic evolution envisaged on the basis of Morgenstierne's hypothesis often leads to the same result. But although it is true that the Burushaski verb (and to some extent noun) is sensitive to the parameters of active/inactive or volitional/non-volitional processes and affected/non-affected participants, as demonstrated by Bashir, *d-* does not necessarily interact with these parameters, which are the primary domains of P and *-s-*, cf. *di-yáay* 'stand firm, be firm (actively)' vs. *d+yay-* 'd.o. (non-actively)'. It is also not the case that the buffer vowel between *d-* and the base always derives from a (fossilized) pronominal prefix.

It would therefore seem likely that *d-* had originally a rather specific and concrete meaning, as proposed by Morgenstierne, from which its other meanings

and functions (e.g. focus on goal, target, result, state, process, detransitivization, denominative) are derived by generalization, abstraction and grammaticalization as outlined above. If the meaning was based on a rather simple dichotomic principle from the start along the lines of Bashir's theory, it would probably have motivated a neater distribution of *d-*.

Bashir's conclusion is, nevertheless, partly supported for Yasin by Morin & Tiffou (1988: 521, n. 20), who observe that the corroborative pronominal *+ya* '(by) oneself' cannot be applied with the prefixed member of some unprefixed/prefixed verb pairs, e.g. *tsel íya pháani* (†*du-pháani*) 'the water overflowed by itself'. A statistically based morphosyntactic and semantic study of the *d-* prefix in the Yasin dialect by the same authors (Tiffou & Morin 1993) suggests (on the basis of vowel harmony) that the oldest and most fundamental function of *d-* was not to detransitivize but to express spontaneous or agentless events, i.e. processes brought about by themselves or by natural forces. Thus, for instance, in the following (Yasin) sentence pair, the verb *xaráṭ-* 'to stick, be(come) attached to' without *d-* implies that the process has been carried out by a person, whereas with the *d-* prefix it implies that this process has occurred of its own by the effect of a non-human agency, e.g., humidity.<sup>26</sup>

- (14) *tikét*    *lephaphácese*    *xaráṭi*    /    *tikét*    *duxáraṭi*  
 timbre    enveloppe.sur    il est collé    timbre    il est collé  
 (Tiffou & Morin 1993: 387.)

Although this function could explain the anticausatives and part of the intransitives, it cannot account for the basic active/agentive verbs indicating, e.g., subject/actor-engendered movement. In many cases intransitives derived from intransitives by the means of *d-* have specifically human agents, but stress the attainment of a specific target or resultant state. On the other hand, the non-agentive value of *d-* can be explained as a consequence of its secondary sense of transition to a state (which does not specify agency).

While recognizing the significance of Bashir's arguments, Berger (1998, I: 110), who documented many more *d-* verbs, emphasizes the semantic unpredictability of *d-*. His scepticism against any synchronically valid generalization about its function is understandable in view of the fact that so often we do not even know (the meanings of) the underlying roots or stems, which would help us analyze the semantic contribution of the prefix. E.g. *do-óq-* (Ys. *do-hóq-*, *duq +man-*) 'to swell (up)'; *d+ṣhki-* (Ys. *dī-ṣhqín-*) 'to grow, come up, sprout (of plants, trees, horns)' < ? *ṣhiqá* (Ys. *iṣhqá*) 'grass, herb'. In some instances *d-* seems to be added to an

<sup>26</sup> Similarly, *d+.wal-* 'to make fly, toss about' differs from *+wal-* only in having an inanimate Actor (Tiffou & Morin 1993: 388). In Hunza the semantic difference in this verb pair does not lie in the animacy of the Actor but in the Undergoer ('let a bird fly' / 'let (grain, etc.) fly, winnow').

achievement or accomplishment verb simply to specify the type of subject or object on an idiosyncratic basis, e.g. *du-shól-* 'to drop, fall down (of overripe grapes, withered leaves); to be obtained, received' ≈ *shal-* 'to drop, fall down (of leaves, fruit)', cf. *shel* (noun) 'soft snow, avalanche snow', Ys. *shol* 'avalanche'. Moreover, we do not know how much the meanings of the particular *d-*derivatives have changed over time or the formative periods in question. If, for instance, *du-phóghur-* 'to boast, pride oneself' is from Arabic via Persian or Urdu *pháqhar* 'pride' (as envisaged as possible by Berger 1998, III: 332f.), denominatives in *d-* from nouns (and not only adjectives and adverbs) were productive until fairly recent times. The denominative function, which accounts for the greatest semantic variety among *d-*verbs, is by any theory the most recent function.

### 2.3. Etymologies of the prefixes *d-* and *n-*

At this juncture it might be worthwhile trying to explore the etymologies of the prefixes under discussion. A possible first clue could then be furnished by the verb pair *d+(.)ya-* 'to come (perfective or aorist stem)' vs. *ní-*<sup>27</sup> 'to go (away), depart, pass, be spent, disappear, cost, take (time)'. The point is that these verbs contrast specifically in terms of deixis (inherent in *ní-*), and their initial segments are mutually exclusive as prefixes.

*D-* and especially *n-* are conspicuously rare as initial segments in native lexemes. The same can be said about *a-*. This points to a very early origin of the prefixes *d-*, *n-* and *a(y)-*. There is a small group of proximal pronominals which have an optional prothetic *d-*, e.g. *(d)akhíl* '(just) like this (one right here or just mentioned)', *(d)akhúrum* '(just) this much, as much as this (amount right here)', *(d)akhólum* '(right) from here'. E.g. *Chágha dakhúrum bilá* 'The story is this much [as I have just related]' (Lorimer 1935, I: 175). These pronominals can be contrasted with items like *taíl* 'like that (one there), such', *toórum/téerum* 'that much, as much as that', *toólum* 'from there', derived from the distal deictic stem *t[ale/o]-*. The first-mentioned lexemes can be etymologically resegmented as *d-a-kh-íl*, *d-a-kh-úr-um*, and *d-a-kh-ól-um*, respectively, where *kh-* is a proximal deictic prefix, cf. *kh-i-n* 'this person, (s)he' (≠ *i-n* 'that person, (s)he'). The expression *dakhólum akhólar* 'from here to there' (Berger 1998, III: 110) would suggest that the prothetic *d-* intensifies the proximal reference, since *(a)khólar* alone means 'hither'. The vowel *a-* is a separate element that is often prefixed to *kh-*, e.g. *(a)kh-ól-e* 'here'. Judging by its accentlessness, this *a-* is probably not the same as the specifying or determinative element *á-* of the indefinite-interrogative pronouns, e.g. *á-min* 'someone, which one (person)' < *men* 'some persons, who (pl.)'. (There is also a separate emphatic 'á, e.g. 'a *teéle* 'far away over there'.)

<sup>27</sup> Ys. *né-*, suppletive with the narrative past base *gal-* and present-future base *csré-*.

Some native speakers seem to identify the prothetic *d-* with the adverb/conjunction *dáa* ‘more(over), -else, again, and (also), (and) then’ (Lorimer 1938, III: 104, 108), which appears to be a Tibetan loan (cf. Tib. *da* ‘now, at present, just, forthwith, then, at that time, indeed, this (in time expressions)’ (Jäschke 1987: 246). Even so, the prothetic *d-* could be etymologically connected with the verbal *d-* prefix, inasmuch as both are (emphatic) proximal deictics (cf. Čašule 1998: 40). Tibetan has also a directive/objective dependent prefix *-d-* (complementary with *-g-*; Wolfenden 1929: 40), but this is hardly to be directly connected with Burushaski *d-*.

A possibly related segment *d-* occurs also in the defective copula *d-ilá* ‘it is, exists (3sg.y)’, past tense *d-il-úm*, of the Nager dialect (Ys. *duá, dulúm*), corresponding to the innovative forms *b-ilá, b-il-úm* of the Hunza dialect. If the copula is simply the conjugated deictic element *d-* (cf. Borgstrøm 1942: 140), it would explain why it is suppletive with the full verb (+)*man-* ‘to be(come)’. The semantic evolution would be \*‘to be right here, to be present’ > ‘to exist’ > ‘to be’.

The primary converb indicates an action that has taken place before the commencement of another action and (usually) performed by the same Actor (Tikkanen 1995). The prefix *n-* could therefore be a temporal adverbial element or aspectual marker stressing anteriority or (prior) completion of event. Unfortunately, there are no adverbial stems with *n* in Burushaski that fit the description. The formation of the primary converb is, in fact, typologically somewhat aberrant in a language like Burushaski, where all secondary converbs are formed by adding case markers and postpositions (instrumental, ablative, dative and locative) to participles and infinitives (e.g. *sén-as-ar* ‘on (dat.) saying (with change of subject)’, cf. *nu-sén* ‘having said (without change of subject)’).

Within the verbal system, *n* is a fairly common, partly unexplained, postradical segment, but there are only two verbal bases with an initial *n-*, viz. *ní-* ‘to go (away), pass, etc.’ and *d+ncsir-* ‘to spread out, strew’ / *di-ncsír-* ‘to be spread out, overflow’. In the latter verb pair the position of this segment right before a consonant suggests that it is of different origin from the prefixal *n-*.

Leitner (1889: xiv, 221) derived *n-* from the root *ní-*, comparing it with the ‘vulgar’ English usage of the participle *gone* in expressions like “he has been and gone and done it” and with the German past participial prefix *ge-*, as if from *gehen* ‘to go’ (actually *ge-* is a collective/perfective prefix comparable with Latin *co(n)-*). Thus Leitner would translate, e.g., *n-éti* < \**ni-éti* etymologically as “gone and done”. But this does not mean ‘having done’. The prototypical meaning of the converb is ‘having V-ed’ or ‘V1 and then V2’, where the aspect, tense and mood are carried over from the main clause, unless the converbal clause is semantically restrictive and/or pragmatically presupposed, e.g:

- |   |                                |                 |             |
|---|--------------------------------|-----------------|-------------|
| (15) <i>Juú</i>   | <i>n-í+šhi-n</i>               | <i>há-al-ar</i> | <i>ni!</i>  |
| apricot   | CONV-3sg.mxyU+eat(hxsg.U)-CONV | house-by-DAT    | go(2sg.IMP) |
| ‘Eat the apricot and go home!’ or ‘After eating the apricot go home!’ |                                |                 |             |

An etymological translation of (15) according to Leitner's derivation would be something like: 'gone/away/finished [with] eating, [then] go!'.<sup>28</sup> This explanation may seem rather farfetched and even unlikely (Berger, personal communication), but it might account for why *ní-* is not repeated after *n-* (e.g. *n-áa+Ø-n* 'I having gone', *n-íi+Ø-n* 'he having gone').<sup>29</sup> If this is the right etymology, it would be a rare case of verbal compounding in Burushaski, although we would then have expected a remnant of the root vowel in the form of *-i-* rather than the default buffer *-u-*. But it is also possible that *n-* is a fossilized directive prefix 'away (from the deictic centre)' in the root *ní-* (< ? \**n-í-* 'to move away'; cf. *n-íi* 'he having gone' < ? \**n-í+i*). It would then have contrasted deictically with *d-*, before being reinterpreted as a converbal prefix. But then we would expect the root \**i-* to figure elsewhere in the lexicon<sup>30</sup>, and the pronominal prefix to occur also outside the converb of this root (contrast *d+(.):ya-*).

A conspicuous morphotactic feature shared by *d-* and *n-* is that they occur before (rather than after) the pronominal prefix. In the case of *d-*, this arrangement goes counter to the observation that derivational affixes customarily occur closer to the base than inflectional affixes do (Bybee 1985: 96); contrast the *-s-* prefix derived from the *x*-class pronominal stem according to Berger (1994: 3). The assumption that *d-* started out as a free adverbial morpheme would explain this typological anomaly. The development of *d-* towards a regular derivational prefix is shown in the Yasin dialect, where, unlike *n-*, it sporadically follows the pronominal prefix, e.g. *mó+du-ghares-i*, *mó+do-mo+ghares-i*, *dó mó+ghares-i* (= Hz. *du-mó+gharus-i*) 'he asked her' (Tiffou & Pesot 1989: 39). The next step would be having forms like *nu-mó+du-ghares-e* 'having asked her'. Since *d-* does not normally suffer *n-* to precede it, *n-* is also likely to be an adverbial or aspectual proclitic. This is all the more plausible, as we contemplate that *n-* and *d-* are, in fact, complementary in the converbal forms of *ní-* and *d+(.):ya-*, which require strong and/or lengthened pronominal prefixes, after which the root disappears or coalesces with the pronominal prefix: *n-áa+Ø-n* 'I having gone', *nu-kóo+Ø-n* 'you (sg.) having gone', *n-íi+Ø-n* 'he having gone', etc.; *d-áa+Ø-n* 'I having come', *du-kóo+Ø-n* 'you (sg.) having come', *d-íi+Ø-n* 'he having come', etc. What is striking here is that P normally stands for a patientive subject with intransitive verbs.

<sup>28</sup> Bleichsteiner (1930: 315) compared *n-* with the Georgian prefix *na-* of the perfect participle (pass.), which appears also in a circumfixal converb (Vogt 1971: 61, 238-239; Hewitt 1995: 433-434), and Mingrel (plu)perfect tense prefix *no-* (Deeters 1930: 227-228), but these elements seem to have nothing to do with any verb meaning 'to go'.

<sup>29</sup> The suffixation of an extra morpheme in the converb (rendering the converbal prefix a circumfix) is usually optional in Hunza (*-[i]n*) and Yasin (*-e, -[ela]ne*), but confined to only one root (*é-t[i]- / +.t[i]-* 'to do, make; speak') in Nager (Berger 1998, I: 133).

<sup>30</sup> The nearest thing would be *d+.i- / d+.ya-* 'to perceive (a smell; P = A)'.

### 3. CONCLUSION

As long as we cannot utilize evidence external to the Burushaski dialects, this would seem to be about as far as we can get. The tentative conclusion, then, is that the verbal derivational prefix *d-* is etymologically speaking a here-deictic directive proclitic (originally an adverb meaning 'right here/hither; (at/to) just this (place)'), while the converbal prefix *n-* is a temporal adverbial or aspectual proclitic indicating anteriority or (prior) completion of event. 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. If *n-* is derived from (or connected with) the root *ní-* 'to go (away), pass', the underlying deictic meaning ('away from the deictic centre') has been reinterpreted and grammaticalized in terms of taxis (succession of events). The contrastive deictic directive meanings of *d-* and *n-* could then account for their mutual exclusiveness.

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### ABBREVIATIONS

A = Actor	gen. = genitive	pl. = plural
abl. = ablative	h = human gender	ppl. = participle
abs. = absolutive	Hz. = Hunza	pres. = present
acc. = accusative	imp. = imperative	pret. = preterite
act. = active	intr. = intransitive	REC = Recipient
adj. = adjective	inf. = infinitive	sg. = singular
agt. = agentive	log. = logical	S(UBJ) = subject
appl./APPL = applicative	m(asc.) = (human) masculine	trans. = transitive/transitivizer
caus. = causative/causee	neg. = negative	U = Undergoer
compl. = complement	Ng. = Nager	V = verb/vowel
cond. = conditional	nom. = nominative	x = x-class
conv. = primary (anterior same-subject) converb	NP = noun phrase	y = y-class
dat. = dative	obj. = object	Ys. = Yasin.
erg. = ergative	obl. = oblique	
f(em.) = feminine	P = pronominal prefix	
fut. = future	pat. = patientive	
	perf. = perfect	

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