

KENHAT, THE DIALECTS OF UPPER LADAKH AND ZANSKAR¹

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According to phonetic features alone, the various dialects spoken in Ladakh are presently classified in roughly two main groups:

- Western Archaic Tibetan: the non-tonal ‘conservative’ dialects of the north-eastern and central areas: Baltistan, Purik, Lower Ladakh, Nubra, and Leh, showing initial and final consonant clusters²
- Western Innovative Tibetan: the ‘innovative’ dialects of the south-eastern areas: Upper Indus,³ Changthang, and Zanskar, where the clusters have been reduced and tonal features can be found⁴

¹ I should like to thank Roland Bielmeier, who first alerted me to some phonetic and morphophonemic similarities between what I observed in Cemre and Gya and the Zanskar, Spiti, and Mustang varieties. His student Thomas Preiswerk similarly obliged me by sharing his recent observations on the Zanskar dialects with me. I am even more indebted to Rebecca Norman for all the discussions we have had on the Ladakhi varieties and for her valuable comments on this paper. I should also like to express my gratitude towards all consultants, since without their help and patience, this paper could not have been written. Special thanks go to Mengyur Tshomo who, by her own initiative, demonstrated an extraordinary diachronic awareness, which allowed us to catch an important linguistic change red-handed. I am also very grateful to my colleague Sam Featherston in the former SFB 441 and to Mark Turin for many improvements in style. Finally, I should like to thank the anonymous taxpayer, who supported the fieldwork on which this article is based: 1996 via grants from the state Berlin (NaFöG) and the DAAD, 2004-2008 via the DFG, for a research project within the SFB 441 ‘Linguistic Data Structures’: On the Relation between Data and Theory in Linguistics at the University of Tübingen (<http://www.sfb441.uni-tuebingen.de/b11/>), and again in 2010 by a grant from the DFG.

² Spoken clusters or their traces in the clusterless dialects will have to be discussed in relation to their Old and Classical Tibetan *written* counterparts. Following conventions of traditional Tibetan grammar, the segments of a written syllable are defined as *radical* (or root consonant: all 30 letters of the alphabet allowed), *pre-radical* (5 pre-scribed and 3 super-scribed letters), *post-radical* (4 sub-scribed letters, still preceding the vowel slot), *final* (10 letters allowed at the position after the vowel slot), and *post-final* (2 letters allowed, in combination only with some of the final letters).

³ This designation is used here solely in relation to Ladakh, not in relation to the total course of the river. More commonly, the designation ‘Upper Indus Valley’ is applied in relation to Pakistan, referring thus to Gilgit and Chilas.

⁴ Cf. Bielmeier (2004, Appendix). Western Innovative Tibetan also comprises the Tibetan varieties of Himachal Pradesh and Uttarakhand. Bielmeier’s classification is based on earlier work by the Hungarian scholars Ligeti, Uray, and Róna-Tas (cf. e.g.

Representing the allegedly ‘most archaic’ dialects (cf. Bielmeier 1985: 15), the ‘conservative’ dialects are taken to be more relevant for the reconstruction of Old Tibetan or even *proto-Tibetan. The classification is highly misleading, and the so-called ‘innovative’ dialects are for various reasons as relevant or perhaps even more relevant for the reconstruction of the proto-language, not least because of their syntactic properties (see especially sections 4-6 and 8 below). On the basis of my fieldwork in Ladakh and some historical considerations (Zeisler forthcoming, Zeisler in preparation), I propose a somewhat more refined version of the above classification, distinguishing between

- The group of *historically younger*, but lexico-phonetically conservative Shamskat dialects (*Šamskad* ‘language of Lower’ Ladakh) in the west and north of Ladakh: Purik, Sham, and Nubra
- The *historically older*, lexico-phonetically partly conservative, partly innovative Kenhat dialects (*Gyenskad* ‘language of Upper’ Ladakh) in the centre, south, and south-east of Ladakh⁵

The Kenhat dialects are closely linked to Tibetan varieties spoken in Himachal Pradesh, with which they probably share a common history. My observations indicate that the Changthang dialects share many grammatical features with the Kenhat dialects, but may show particular lexical traits. The verbal auxiliary morphology shows Central Tibetan influence, and I do not want to preclude that some of the Changthang dialects may be closer to Central Tibetan varieties.⁶ However, no historical or linguistic data is presently available to state anything with certainty. The Balti dialects spoken in Pakistan and in the region

Róna-Tas 1966: 21f). For critics of this classification see below. In any case, I should prefer the attribute ‘lexico-phonetically conservative’, since the Ladakhi dialects are highly innovative at the morphological and syntactical level.

⁵ The Cemre consultant called her own speech ‘Gyenskat’ (with Leh pronunciation), and the name was also accepted by the Gya consultant. The term is not very common among outsiders, but the alternative term Stot(pa), as given by Koshal (1979: 1, 1990: 14) and Bielmeier (CTD: ii “Stot or Ken” for the dialect of “Igu”) is likewise not generally known, nor is it accepted by the speakers themselves. People from Lower Ladakh would call the people of the Upper Indus invariably *Tjanthanpa* and their language accordingly *Tjanthanpe skat*. In contrast to the local designations of Sham and Gyen/Ken, I will use the terms Shamskat and Kenhat as cover terms for a wider range of dialects. For the purpose of the present paper, I will confine them to the region of Ladakh, or more precisely to the two Hill Council districts Leh and Kar-gil (the latter comprising the regions of Purik and Zanskar).

⁶ Cf. also LSI (p. 52), stating that the Zanskar dialects agree with Rong, but that in the nomadic area of “Rubshu [...] a form of Central Tibetan is spoken”.

around Kargil in Ladakh (to a certain extent also in Balti settlements in the Leh district) should perhaps be classified as a special subgroup of the Shamskat dialects, as they show significant differences in the use of verbal auxiliaries.

Table 1 Sound changes in Kenhat⁷

	laryngalisation		de-palatalisation	palatalisation	fricativisation of cluster ⁸			(sub-) phonemic tone
	w > fi	j > fi	j > ø	ʃ > ç	initial		medial	
					vcl	vcd		
Sham	–	–	ø-i,e	– ⁹	cluster	cluster ¹⁰	cluster	–
LEH	–	–	ø-i,e	–	cluster	γ : xd,xb	cluster	–
PIP	?	–	–	–	χ,φ : θ~xt	γ,ð,β : ld	(all) ¹¹	–
HML	–	–	?	–	χ,φ : xt	γ,ð,β	(all) ¹¹	–
MND	?	–	–	–	χ,φ : θ~xt	γ,ð~xd,β	(all) ¹¹	–
CEM	?	+	–	+	χ,φ	γ,β	vcl	–
SHA	+	fi-a,o,u	–	+	χ	–	vcl	+
GYS	+	fi-a,o,u	fi	–	–	my	vcl,my	+
NYO	+	–	–	ʃ > ^h ç ʒ > ^h j	–	–	– ¹²	+
section	2.1				2.2		3	

⁷ ‘Change’ is understood here in relation to the oldest documented language stage, i.e. Old Tibetan (OT), ca. 650-1050 CE. Particularly in the case of ‘laryngalisation’ and ‘palatalisation’ it may well be the case that these features reflect an even older, archaic stage of the language.

⁸ ‘vcl’ = voiceless, ‘vcd’ = voiced, ‘x’ = preserved pre-radicals. All other abbreviations are explained at the end of this paper.

⁹ One should, however, note the sporadic Purik form /jak-/ for *žag-* ‘day’, which may also appear infrequently in other dialects of western Sham.

¹⁰ Note, however, *lŋa* → /ɣa/ ‘five’.

¹¹ Fricativisation appears to be somewhat unpredictable or irregular in Manda at the medial position (the position that enhances the preservation of original clusters). I do not have data for the other two dialects, but the pattern may be quite similar.

¹² The consultant uttered fricatives every now and then at the morpheme boundary, but did not accept this consciously as a feature of his dialect.

Table 2 Kenhat morphophonemics

	loss of final -s after					defi- nite- ness	genitive agent		evidential marker	
	consonant			vowel			-se gen.	future	past	
	p,m, k,ŋ	cluster>ø		umlaut	assimil. of stem					
	-ŋs	-ks								
Sham	-	-	-	-	-	{po}	-	-	suk, khantsuk	
LEH	-	-	-	-	-	{po}	+	-	ok, anok	tok, k(j)ak, kanok
PIP	+	+	?	diph- thong	-	{po}	+	?-	nok, {kak} kan	?, {kak}
HML	+	+	+	diphth.	-	?	+	?-	?	?, hak
MND	± ¹³	-	-	diphth.	-	<i>no data available</i>				
CEM	+	+	-	+	+	{de}	+	+	{kak} kan	{tok}, kak, {kanak}
SHA	+	+	-	+ / t / ø	+	{de}	+	+	<i>no data available</i>	
GYS	+	+	-	+ / t / ø	+	{de}	+	+	ak, {kak} kan	{tok}, {kak}, {kanak}
NYO	+	- ¹⁴	-	(+)	(-)	{de}	+	+	ak, {kak} {kan}	cuj, soŋ tok, kak, ?
section	2.3					7	8		10	

In this article, I present the main features characteristic of the Kenhat dialects, which distinguish them from the Shamskat dialects in so many ways that they may be thought of as two different languages. After describing the geographical setting (1), I will present the most obvious phonological features of the Kenhat dialects (2; see also Table 1) and will discuss the problem of tonogenesis (3). Section 4 deals with the preservation, generalisation, and eventual loss of Old Tibetan verbal suffixes in the two dialect groups. The following sections 5 (Frozen clusters in Gya compounds) and 6 (Substitution of final -s by /-t/ or ø) demonstrate the importance of the so-called ‘innovative’ varieties for the reconstruction of Old Tibetan. The lexical differences will be exemplified with the definiteness marker, remote deixis, and first person inclusive plural pronoun (section 7). The more deeply rooted morphological and

¹³ Although final clusters can be found as alternative forms, the general tendency is for the loss of post-final -s in Hoshi & Tondup Tsering (1978).

¹⁴ In a few cases, the coda was reduced to a mere nasalisation of the vowel, cf. /hō/ *hoŋs* ‘threshed grain’ or even /sōa/ *somaŋs* ‘comb’, in contrast to /kaŋ/ *gajs* ‘ice’ or /rolaŋ/ *rolaŋs* ‘zombie’, but the vocabulary would have to be checked more systematically to find out whether the latter pronunciation is not due to Leh influence or whether the nasalisation could not also result from simple coda consonants.

syntactical differences are discussed in sections 8 (Bimorphemic case marking and case neutralisation), and 9 (Marking of tense and evidentiality). The two tables above may serve as a guide through the paper.

1. THE GEOGRAPHICAL SETTING

The exact geographical extent and distribution of the Kenhat dialects is as yet unknown. For the Ladakhis, the main centre lies in the vicinity of Hemis Gompa (ca. 45 km south-east of Leh): Kharu, Cemre, Sakti on the right side of the Indus; Hemis, Upshi, and Martselang on the left side. The dialects extend to the south-east along the right river-bank over Igo and Shara, possibly including the Ronghat area (*Ron-skad* ‘language of the gorges’),¹⁵ with the villages Hemya (located on both sides of the river), Liktsé, and Kyunggyam on the right, Tarshit, Tiri, and Kere on the left side of the Indus. The neighbouring dialect of the Nyoma nomads differs mainly in phonology and does not show any fricativisation. The use of the past tense egophoric marker /tʃuŋ/ and its counterpart /soŋ/ indicates a certain proximity to Central Tibetan, but the Nyoma dialect also shares the grammatical feature of genitive agent marking and the use of particular evidential auxiliaries with the Kenhat dialects.

To the northwest, the most prominent phonetic feature, fricativisation of initial clusters (see section 2 below and appendix), extends only as far as Thiktse and upper She on the right bank (about 25km and 15km south-east of Leh respectively), and perhaps up to Matho on the left bank (about 25km south of Leh). But the central dialects around Leh show at least regular fricativisation of clusters with a voiced velar radical. The LSI (p. 52, 54) also mentions fricativisation of clusters

¹⁵ For my Gya consultant, the geographic term /Ron/ describes a very narrow valley along the Indus. Francke (1901: 6) mentions the “Rongpa dialect” as situated at the “upper-most Indus valley right bank”. The LSI refers to the “dialect to the east of the Leh dialect” (p. 52) or to the “dialect of the upper-most Indus valley” (p. 53). But the name *Rong* might be used also for other narrow side valleys and can be found for a place between Gya and Miru (Nest & Wings trekking map, Army Map Series, Washington, U502 India & Pakistan, second edition, NI 43-12 U8589) or for the village Miru itself (sheet NI 43 of the International Series, 8th edition, Government of Pakistan, Nelles Maps Himalaya, Nelles München, and other maps). Zeisler (2004), thus erroneously uses the name *Rong* for the valley of Gya-Miru in contrast to *Stod* for the Upper Indus valley.

with a voiced labial radical, which I have never observed. While this statement in the LSI possibly reflects the situation of the day, it may rather refer less specifically to the villages in some distance to Leh.¹⁶ In general, the dialects around Leh show a pronunciation closer to Shamskat dialects, but all of them share the grammatical feature of genitive agent marking and the use of particular evidential auxiliaries with Kenhat dialects. While Leh has been an important exchange station on the trade routes from and to Central Asia, Tibet, and Kashmir, from history it is known that the Ladakhi kings repeatedly settled a considerable number of people from Baltistan and Purik in villages around Leh, such as She and Chushot. Both of these factors may have led to the observable mixture of what are basically two quite different languages.

To the south, the Kenhat dialects comprise the dialect of the eastern side valley of Gya-Miru, Gyahat (*Gyaskad*) and the central and eastern dialects of the Zanskar valley, Zâhare lðau (*Zanskari zlabo*).

Along the Indus, there is a clear geographical boundary between the two main dialect regions. Snyemo (or Nyimo), the first village of the Shamskat area,¹⁷ lies in a sharply cut basin, the south-eastern boundary of which is formed by some lines of higher slopes and the very narrow gorge of the Indus river. On the left bank of the Indus rises a forbidding chain of steep mountains. The Zanskar river coming from the south-west and flowing into the Indus at Snyemo could not have served as an access route in the past above Chiling and the Markha valley, except for courageous traders trekking up the ice in midwinter when it was completely frozen. According to an individual from Kaya,

¹⁶ In the Kesar narration from Stok, one finds Kenhat features (including the occasional fricativisation of voiced labials) side by side with Shamskat features, but I remain unsure whether this is an idiosyncrasy of the narrator or rather typical of the village dialect. Stok is situated almost opposite Leh on the left riverbank.

¹⁷ Zeisler (2004: 607) erroneously placed the dialect boundary to the west “between Basgo (*Babsgo*) and Saspol”, following Francke’s map (1904, plate vii), which shows the dialect boundary as a “line midway between Saspola and Basgo” (LSI p. 52). This could have made sense, since there is another geographical boundary or small pass to be crossed in order to leave the Snyemo-Bazgo basin. I have not yet worked on the dialects of Snyemo and Bazgo, but a young woman from Snyemo told me in 2005 that she always uses the instrumental marker for the agent, thus /khos/, never the genitive /khôi/, and she further described her speech as being quite similar to that of Saspol, except that the people of Saspol would always use the directional marker /-la/ instead of the contracted /-a/ (a feature that the Saspol consultant ascribes to the speakers of Alchi on the other side of the Indus).

the dialect of the Markha valley would correspond to the Shamskat dialect spoken in Bazgo and Snyemo and the area would have the same climate and economy as does Sham.

Although the south-eastern slopes and the sand plains behind Snyemo were only a minor obstacle on the route to Leh, they nevertheless mark a boundary between different climate zones, and thus also between different economic zones: south-east of this boundary, there is no professional horticulture, fields yield only one harvest, and the further one proceeds eastward, the more semi-nomadism or full nomadism become dominant; north-west of the boundary, full nomadism never prevailed, and the economy, especially in the lower areas along the main rivers, is dominated by orchards (apples, apricots and walnuts, and in the lowest areas also peaches and grapes) and fields yielding two harvests.¹⁸

The Zanskar valley itself is connected by old trade routes over Garzha (Lahul) in the south to Spiti and Kulu and by various other passes to the valley of Gya-Miru and then further on to the Changthang. A few trails over the north-eastern mountains connected Zanskar with Central Ladakh and were used for exporting butter, while a very difficult trail led to Kishtwar, used for the import of wood (Thomas Preiswerk, p.c.). To the north-west, the Zanskar valley is connected with the Balti-speaking areas of Purik via the Doda river (the north-western tributary branch of the Zanskar river) and the Suru valley.

The main dialect boundary between the Purik and Zanskar dialects lies after Parkachik (Thomas Preiswerk, p.c.), the last village of the Purik dialect area. Although quite easy to master, the long ascent

¹⁸ I should like to emphasise that there are also notable differences in mentality and culture. Kenpas of the Upper Indus area do not appreciate sarcastic speech and condemn the Shammas for their 'crooked' or 'twisted' speech. Compared to westerners, Shammas still have a rather underdeveloped sense for linguistic jokes, but at least they do enjoy linguistic accidents (e.g. my /kha tshante/ *kha tshante* 'hot mouth' instead of /tʃa khante/ *ja khante* 'salted tea'), and like to play with opposites (saying 'the door is too high for you' or 'you are too short' when one has bumped one's head). This is exactly the kind of speech that Kenpas detest.

While lucky hunters in Domkhar are (or were) expected to share their prey with the villagers—and would thus try everything to prevent their success becoming known—no such expectation of 'exaggerated' solidarity threatens the candid attitude of hunters in Gya. This contrasting attitude towards hunting and sharing definitely deserves a detailed anthropological study. It is possible that the obligation to share is related to rites concerning goat-worship and hunting, as reported for the Dards of Pakistan or more generally for the mountain tribes of Iran (Jettmar 1961: 87-92).

along the Suru contributory from Parkachik up to Rangdum Yülđo marks again an economic boundary: the formidable pasture land, bare of any trees, stands in sharp contrast to the rich agricultural land of Parkachik, with its extended fields and copious trees. The handful of meagre fields of Yülđo barely deserves this designation. Only some way after the Pendzila along the Doda river, down to the central plain of Fađum (*Spaldum*, ‘Padum’ on the maps) and in the adjoining valleys, is more substantial agriculture once again found, and even then in no way comparable to that of the Suru valley.

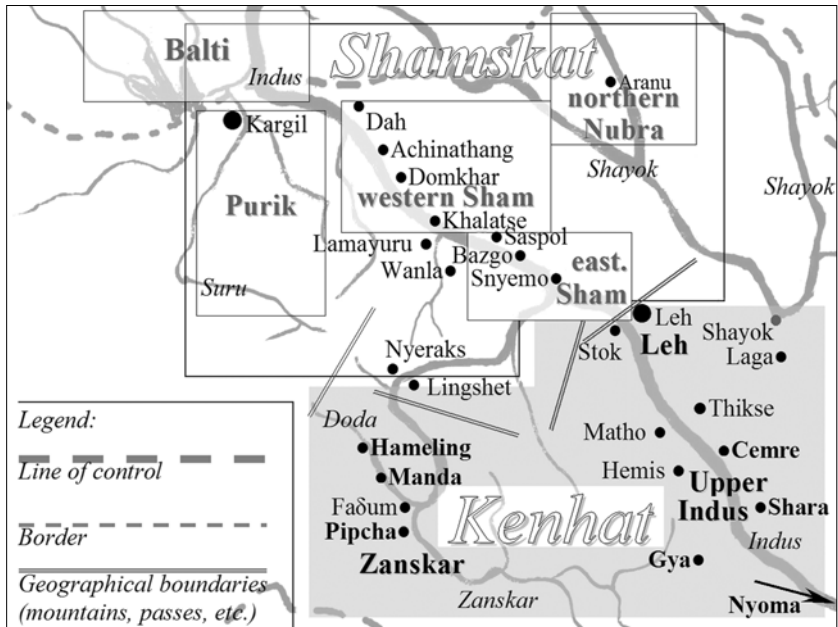


Figure 1. Dialect regions of Ladakh (detail, map not to scale)

The lower part of the Zanskar river is connected by trails via Wanla and Lamayuru to Lower Ladakh and the dialects spoken there are likely to be either part of the Shamskat group, or to be strongly influenced by that group.¹⁹ The dialect of Yulchung-Nyeraks, for example, is clearly Shamskat. These two villages are situated on opposite sides of the lower part of the river, shortly after the eastward bend near Lingshet.

¹⁹ Cf. the LSI (p. 52), according to which “the north-western districts” of Zanskar “show traces of the Sham dialect”.

According to the Nyeraks consultant (Tashi Angchuk, 1996), one used to reach there from Wanla in a two or three day walk crossing three passes. There seem to be suitable geographical boundaries within the area, such as several passes on the trail between Faðum to Yulchung-Nyeraks isolate the populations on each side, but since I have never been in that region this needs further confirmation.

According to Thomas Preiswerk, who started his linguistic fieldwork in 2007, the Zanskar dialects are relatively homogeneous, but are classified into four groups by the speakers themselves: *θot* (*Stod*) or Upper Zanskari along the Doda river, *Zhung* (*Gžun*) or Central Zanskari, around the valley of Faðum, *Sham* (*Gšam*) or Lower Zanskari along the lower course of the Zanskar river, and *Lungnak* (*Lunṅnag* ‘Black Valley’) along the upper course of the Zanskar river. As we both have noticed, however, there is considerable individual variation among speakers from the same village or even within the same family.

I first obtained data from Kenhat in 1996, when I recorded a short version of the Kesar epic in Gya. During my field stay in Ladakh in 2004, I transcribed the narration with the help of a Cemre speaker, and discussed with her in some detail the grammar of Gyahat and her own dialect. During my field stays from 2005 to 2010, I worked mainly with a consultant from Gya-Sasoma (in 2009 also with her cousin), but also had the chance to conduct shorter interviews with one speaker each from Shara (Upper Indus), Hameling (Zanskar),²⁰ Shayok, Laga (Shayok valley), and Nyoma (Changthang). Each of these dialects still requires systematic research. In 2008, I finally had the opportunity to make a short trip to Zanskar, visiting the villages of Faðum, Zangla, and Pipcha together with Thomas Preiswerk. During this visit, I collected some data from a Pipcha speaker.

Besides the Comparative Dictionary of Tibetan Dialects (CDTD), comparative Ladakhi data is available only for the Manda dialect of Zanskar (Hoshi and Tondup Tshering 1978).²¹ The varieties of Hima-

²⁰ Located on the Doda river, somewhat north-west of Phe, north of ‘Padum’, AMS NI 43-12 (ca. T7376); also to be found on the Government of Pakistan International Series sheet NI-43.

²¹ Tondup Tsering hails from Manda village (Hoshi and Tondup Tshering 1978: i), but the authors remain silent about its location. According to the features described below, one might surmise that it is located north-west of Faðum, somewhat further up than Hameling. But the only village by the name of Manda that I could locate lies between Hameling and Phe (AMS NI 43-12, ca. T7974). The village is not found on other maps.

chal Pradesh, namely Spiti (Sham area and Pin valley), Nyamkat, and Tot (“Tod”) have been cursorily surveyed by Sharma (1989 and 1992).²² Veronika Hein is presently working on the Tabo Spiti dialect and I am much obliged for the information and data which she has generously shared.

2. PHONETIC AND MORPHOLOGICAL FEATURES

2.1. *Some minor features*

The Upper Indus dialects of Cemre and Shara show palatalisation of the simple initial post alveolar fricative *š*- [ʃ] → [ç], which may be blocked, however, for certain morphemes, e.g. the limiting quantifier [-fik] ‘some’ (Table 1, column 5). Similar palatalisation is found in Nyoma, with *š*- [ʃ] → [ʰç] and *ž* [ʒ] → [ʰj]. Old Tibetan radical *h* and radical *y* before back vowels are typically realised as voiced fricative laryngal [ɦ], e.g. /fioma/ vs. Sham and Leh /oma/ *homa* ‘milk’; /fura/ vs. Sham and Leh /jura/ *yurba* ‘canal’; /fiŋ/ vs. Sham and Leh /joŋ/ *yoŋ* (CT *hoŋ* ~ *yoŋ*) ‘come’ (Table 1, column 3). In Nyoma, the voiced laryngal is typically related to an original *h*, but may be found in a few words that have an initial palatal in Classical Tibetan, such as /fura/ *yurba* ‘irrigation channel’, /hot/ *yod* ‘exist’, /hop/ *yob* ‘stirrup’ and /huldak/ *?yulthag* ‘place to store the grain before threshing’. By contrast, some Kenhat dialects show an initial palatal before front vowels, thus Nyoma, Shara, and Manda /jin/ *yin* ‘be’ and /jige/ (MND “*yiŋe*”) *yige* ‘letter’, Gya /hin/, /hige/ vs. Leh and Sham /in/ and /ige/ (Table 1, column 4).

Nyoma, Shara and Gya (possibly also Cemre) show the realisation of OT *w* (originally written *h* above *v/b*, probably for *[ɣv] or *[ɦv], cf. Roerich 1933: 96, Uray 1955: 109-112) as [ɣ-] or [ɦ-], thus [ɣatse] or [ɦatse] for *watse* in contrast to Leh and Sham /watse/ ‘fox’ (Table 1, column 2). The voiced laryngal (or its unvoiced but low tone counterpart) is also found in the neighbouring varieties, cf., e.g., Spiti and Nyamkat /fioma/ ‘milk’; Spiti /ɦatse/ ‘fox’ (Sharma 1992: 21, 22,

²² It is necessary to point out that a large number of printing and data errors mar Sharma’s work, making his books rather unreliable as sources. All further references are thus given with the *proviso* that additional research into these dialects is needed.

112),²³ Tabo Spiti /foma/ and /hatse/ (Veronika Hein, p.c.); but Lahul /oma/ and /uatse/ Roerich 1933: 96, 98). For a more extended connection, see also Drokpa /aɔŋ/ ~ /haɔŋ/, Mustang /amo/ *wamo* ‘vixen’; Drokpa /a/ ~ /ha/ and Mustang /asi/ *wa, watse* ‘fox’; Drokpa /oāŋ/ ~ /hoāŋ/ and Mustang /oma/ *homa* ‘milk’; Drokpa /hō:/ *yod* ‘exist’ and /huŋ/ *yoy/hoy* ‘come’ (Kretschmar 1986: 354, 368, 369 for Drokpa, 1995: 469, 489 for Mustang).²⁴ Uvular or laryngeal realisation of OT *h* and *w* is otherwise known only from Eastern Tibet, cf. Kham: Kardze /γoā:/, Batang /γomā/ ‘milk’, Amdo: Rngaba /ʁomæ/, Mdzorganrabar /ʁoma/ ‘milk’; and Amdo: /ka/ ~ /kæ/ ~ /ɣa/ *wa* ‘fox’ (CDTD).

2.2. Fricativisation of cluster onsets

The most obvious feature for which the Kenhat dialects around Hemis are known among Ladakhis is the fricativisation of former word-initial clusters of voiceless radical plus non-nasal pre-radical (prescript *g-*, *d-*, *b-* or superscript *r-*, *l-*, *s-*): [hat] or [χat] for Leh and Sham /skat/ (*skad*) ‘language’, [ɸera] for Leh and Sham /spera/ *dpesgra* ‘speech’ (see also appendix).²⁵ Varieties more to the east, such as Nyoma, have lost all pre-radicals and their intermediate traces.

Interestingly, the Kenhat dialects vary considerably in which cluster is reduced by fricativisation and which pre-radical is completely lost. Gya shows only word-medial fricativisation, but nearly complete loss of the pre-radical at the word onset, the exceptions being [γo] *mgo* ‘head’²⁶ and the clusters *g-*, (*b-*) *r-*, *s-* + *ts* → *s*,²⁷ Shara shows fricativisation of only the clusters with a voiceless velar radical and loss of

²³ Sharma actually writes “homa” and “hace”. But he also uses the letter ‘h’ in his discussion of aspiration of voiced initials with the example “/oma/ → /homa/”. It appears that he is biased towards the Indian phonetic inventory and does not differentiate between the voiced and the unvoiced laryngeal. The transcriptions “c” for [tʃ] and “č” for [ts] (!) are systematically confused in all of his work.

²⁴ One may also compare Central Tibetan Kyirong /hɔ:/ *hog* ‘below’, but /okā:/ *hogkhan* ‘ground floor’, and /hu/ *hu*, but /orā:/ *horan* ‘we (incl.)’ (Huber 2005: 32).

²⁵ First mentioned by Francke (1901: 6) and LSI (p. 52).

²⁶ The realisation /γo/ for *mgo* ‘head’ is also attested in the Kesar narration of Stok, cf. /ste gozam, stayozam/ *rtahi mgozam rtamgozam* ‘as big as the head of a horse, as big as a horse-head’, /yokak/ *mgokag* ‘head-responsibility (i.e. to warrant with one’s one life)’. In Hameling, the voiced initial might interchange with a voiced aspirated initial.

²⁷ GYS /ʃaŋgu/ *spyankhu* ‘wolf’ should also be mentioned, but the fricativisation of the cluster *s* + *tʃ* (here from *py*) > *f* is common to all Ladakhi dialects and may even be found in Balti, cf. /ʃaŋko/ beside /spjaŋku/ (SPR).

the pre-radicals for all voiced radicals as well as for the voiceless labial and dental radicals, Cemre exhibits fricativisation of the clusters with an voiceless velar and labial as well as a voiced labial radical, and thus loss of pre-radicals for the voiced and unvoiced dental and the voiced velar; whereas Hameling exhibits not only the fricativisation of clusters with voiceless velar and labial radicals and a full set of fricativisation of clusters with voiced velar, dental, and labial radicals, but also the retention of the clusters with a voiceless dental radical. Manda (Hoshi and Tondup Tshering 1978) shows not only fricativisation of clusters with dental radicals (in addition to velars and labials), but also the alternative retention of clusters with voiced and voiceless dentals (see Table 1, columns 6-8 and the appendix).

Similarly, the dialects differ in the realisation of ancient clusters with a palatalised velar: Manda retains it: /χkjot/ *skyod* ‘go, come (hon)’, Hameling and the other Central Zanskari dialects palatalise it completely: /çot/; while the other dialects have lost the pre-radical: /kjot/.

As in many other Tibetan varieties, the process of onset cluster reduction started at the beginning of the word, whereas the process was delayed in medial position, cf. GYS /kāt/ *skad* ‘speech, language’ vs. /Gjahat/ *Gyaskad* ‘dialect of Gya’, /K̄enhat/ *Gyenskad* ‘dialect of Upper’ Ladakh. Not only the original syllable onset clusters became fricativised at the morpheme boundary, but simple stops also when the preceding syllable ended in a fricative sonorant (-r, -l, -s). In many such compounds, the original coda of the first syllable, or the coda resulting from a former pre-radical (see section 5 below), was preserved before a voiceless radical of the second syllable, while the following stop became fricativised, cf. GYS and HML [γol-fak] *mgo-lpags* ‘scalp’, GYS [kāl-fa] *bskal-pa* ‘aeon’ and HML [kar-fho] *dkar-po* ‘white’. In such cases, a former pre-radical *s-* changed into final *-r* before velars, cf. GYS [zur-hut] *gzu-skud* ‘bowstring’ and [ʃar-ham] *ša-skam* ‘dried meat’.

The regional distribution of this feature suggests that fricativisation was an intermediate state in the process of onset cluster reduction.²⁸

²⁸ It is not the only possible one. Sun (2003: 785) describes preaspiration, resulting from *r-* and *s-* pre-radicals. Balti shows the aspiration of the nominaliser *pa* by a preceding final *-s*, cf. the examples p. 21 given for the hidden past-tense suffix. Preaspiration as a result of devoicing is found in Leh for nasals with an original pre-radical and similarly in Leh and some Shamskat dialects for the sub-scribed lateral. The Kenhat fricativisation might thus result from an earlier aspiration. In fact, the nominaliser

However, in view of the original laryngeal fricative [h], which remained unaffected, I am somewhat sceptical about the phonetic automatism leading from [χat] ~ [hat] to [kat] ~ [qat] simply via de-fricativisation (as a further reduction of phonetic complexity). I would have expected a few mismatches at least, for example a word such as Ladakhi /hampa/ *hampa* ‘courage’ becoming */kampa/, and a word like /hat/ < *skad* remaining /hat/. Yet, to my knowledge, no such mismatches have ever been reported for any of the Tibetan dialects that underwent onset simplification. Since Ladakhi shows some allophonic variation between aspirated stops and fricatives, especially labial [ph] ~ [f], but also velars preceding back vowels: [kha] ~ [qha] ~ [χa], one might further have expected that fricatives would end up as aspirated stops.

The ‘correct’ reanalysis might thus be due in part to sociolinguistic factors, namely the constant contact with speakers of the less reduced Leh dialect and the prestigious nature and normative pressures of the Leh dialect. A second, equally important factor is the delayed development at the medial position.

2.3. *Changes in the coda position*

With the exception of Leh and to a certain extent Manda, all Kenhat dialects have lost post-final -s (Table 2, column 2). With respect to the complete loss of the whole velar cluster (OT -gs, -ŋs, Table 1, columns 3 and 4) one can again observe great variation among the dialects: Manda shows no loss at all, or at least no loss of the final velar; Nyoma (as well as other Changthang dialects) has lost the final -s; Hameling (and possibly other Zanskari dialects) has lost both clusters,²⁹ while the other dialects have lost only the cluster with the nasal.³⁰ Loss of final cluster -gs can also be observed in Tabo Spiti (Veronika

of the past participle may be realised either as [-p^ha] or as [-φa]. Fricativisation of clusters with labial radical is also attested in Amdo Tibetan, cf. Sun (1986: 119, 129, 143-144) and Haller (2004: 25, 230, only /phi/ < *spos* ‘incense’).

²⁹ The data for the Pipcha dialect, however, are not very conclusive: the consultant constantly shifted between the complete drop of both simple final velar stops and the cluster and the retention of a glottal stop or even the velar stop (the latter two realisations more often, but not exclusively, for the simple velar stop). This may perhaps reflect the growing influence of the Leh dialect, especially on the younger generation.

³⁰ Ronghat and Zanskari are characterised in the LSI as having dropped final -ŋ (p. 53). But as far as the simple final -ŋ is concerned, this statement is not true for most of the dialects. It is typically only the whole cluster -ŋs that is dropped.

Hein, p.c.), less commonly in Mustang (Kitamura et. al. 1977); while loss of final *-ŋs* is attested in Mustang (Kitamura et. al. 1977, Kretschmar 1995 III: 127), but less regularly in Tabo Spiti (Veronika Hein, p.c.).

A further important difference is found in the treatment of ancient final *-s* after vowel (Table 1, column 5), which is preserved, unaltered, in Shamskat and generally also in Leh. A few words, such as Leh /thore/ vs. Sham /thoras/ *thoras* ‘tomorrow’ and the ablative morpheme /ne/ *nas*, nevertheless demonstrate the Kenhat substrate. The Kenhat dialects typically show vocalisation of ancient final *-s* as **i*. The Zanskar dialects show a tendency for diphthongisation or fronting after back vowels: *o, u + *i* → [oe] or [ō], [ui] or [ü] and merging of *a, e + *i* → [e], *i + *i* → [i]. The other dialects show a complete merger with the vowels [e] (< *-as, -es, -os*) and [i] (< *-is, -us*). The latter sound change does not seem to be of a very old age, as it is not yet fully completed in Gya where in a few exceptional cases the diphthong is preserved (e.g. /so/ ‘tooth’, /soe/ ‘of the tooth’). Thomas Preiswerk (p.c.) also observed a shift towards merger in Zanskar, particularly among children and among the Muslim community of Faḍum.

Final *-s* appears to be preserved in Manda (with or even without change of the vowel), but is lost in the other Kenhat dialects (cf. Table 2, column 5). While Thomas Preiswerk (p.c.) suggests that the Manda data is unreliable due to interference with the Leh dialect or a local *koiné*, I would think, in the light of the above observations, that it might represent an earlier stage in a possibly quite accelerated process of sound change. Diphthongisation or vowel merging does not seem to have been pre-eminent in the Kenhat dialects only a hundred years ago, as it went unnoticed by Francke (1901) and the LSI, although diphthongisation with complete loss of final *-s* has been noted by Jäschke (1881: xvii) for an unspecified Ladakhi dialect (perhaps the most eastern one?). But even in this case, vowel merging was not yet observed.

Nyoma shows regular fronting of vowel *a* → [e], frequent, but unpredictable fronting and partial diphthongisation of vowel *o* → [öe], and very infrequent fronting (and diphthongisation) of *u* → [üi].³¹ Occa-

³¹ This feature has been tested mainly for the past tense suffix *-s* and has yet to be tested more systematically for nouns. It is possible that the non-fronting is due to stem assimilation. On the other hand, the consultant stated that while he could perceive the difference in the vowels, speakers of his dialect would not usually pay attention to it. This would indicate that the vowels or diphthongs [öe] and [üi] are not yet part of the phonemic system.

sionally, a syllable final vowel could be affected by a ‘migrating’ *s*-pre-radical in the following syllable (see also section 5 below): GYS [ye-fu] < *[yes-fu] < *[yes-pu] < *[yos-pu] < *mgo-spu* ‘hair (on the head)’.

This sound change goes hand in hand with a dramatic reorganisation of verb stem formation in Gya and the Upper Indus dialects. In the development of the Ladakhi dialects, and similarly also in the Central Tibetan dialects, a certain pressure to eliminate the opaque *ablaut* system of Old Tibetan can already be observed. With only few exceptions, vowel (and radical) of stem I, the so-called present stem, were assimilated to that of stem II, the so-called past stem (Zeisler 2004, 874-876). The main difference between the two stems was then the presence or absence of the past-tense marker *-s* (see also section 4 below). While speakers can apparently still ignore the mere fronting or the diphthongisation of the vowel by an immediately following past-tense marker *-s*, they obviously cannot ignore the new *ablaut*, resulting from the merger with vowel [e] or [i], particularly since the morphological motivation (past-tense marker *-s*) is no longer transparent.

The pressure to eliminate *ablaute* must have been very productive, leading thus to a second cycle of verb stem assimilation in the Upper Indus dialects. As in the first cycle, assimilation is generally oriented towards stem I (exceptions are typically motivated by semantic disambiguation) and affects also stem IV, the so-called imperative stem. The development can be illustrated with the verb *bco* ‘do’:³² LEH /ʃo : ʃos/ > MND /ʃo : ʃoes/ > HML /ʃo : ʃoe/ > GYS (grandfather) /ʃo : ʃe/ > GYS, SHA, CEM /ʃe/. Stem IV is even affected in those cases where the original verb root had vowel *a* and the vowel alternation for stem IV: *a* → *o* had been preserved in the first assimilation cycle, e.g. GYS, SHA, CEM /te/, GYS (grandfather) /ta : te : to/, Sham /lta : ltas : ltos/ < OT *lta : bltas : blta : ltos* ‘look at’ (cf. Table 2, column 6).

As the example of Gya shows, the process of verb stem assimilation is of quite recent date, and might still be continuing in other dialects. The grandfather of the Gya consultant died in 2003 at the age of 81. He, as well as his father, hailed from a family that had been living in Gya-Sasoma for centuries. His grandfather was a *mākpa* ‘son-in-

³² From CT *hchos : bcos : bco : chos* ‘construct, fabricate’. The verb has replaced CT *byed : byas : bya : byos* ‘do’, probably because the sound changes, affecting the stems differently, led to an opaque and intolerable clash between stem I **be* and stem II **fhas*.

law' from Miru, a nearby village on the road to Kharu. His mother came from Gya, his grandmother from Upshi, and his wife from Tiri (Ronghat area). According to the consultant, Ronghat shows particular features, which are quite different from the speech of her grandfather, so that an influence from these dialects can be ruled out.³³ Furthermore, the consultant claimed to have observed the 'archaisms' of her grandfather's speech in the speech of other villagers of the same age group also, whereas the generation of her parents (born 1937 and 1938) would use the new forms almost exclusively.

Exceptionally, the verb /so : se/ 'look after (children)' (CT *htsho/gso*) has retained the two stems in the speech of the younger generation, in contrast to the corresponding verb /se/ 'restart (a fire)' (CT *htsho/gso*).

The completion of the morphological change in the Gya dialect can thus be dated to the first quarter or first half of the 20th century. I would assume that the corresponding changes in the Upper Indus dialects are not very much older. But for the moment, no comparable data are available, and the prospects of getting such data are none too good. The generation of these (great-) grandparents is slowly passing, and only very few consultants have an awareness of the differences in the speech across generations.³⁴ The Gya consultant (born 1979) is quite exceptional in her diachronic awareness as well as in her passive vocabulary. As a small child, she went with her grandfather to the high pastures, and while attending primary school, she still accompanied him to the winter pastures, thus becoming acquainted with his style of speech.

³³ Even more so, as marriages used to be arranged around the age of 13 or 14, cf. the age difference between the consultant's grandfather and father. One would expect that the young girls (or boys) quickly took up the dialect of their in-laws.

³⁴ The consultant's generation were among the first children in remote villages to have access to modern education. Typically, modern education is accompanied by some sort of cultural alienation. In Ladakh, it also goes along with a certain degree of standardisation of the dialects towards the speech of Leh and the emergence of an inferiority complex, which does not enhance the memory for non-standard particularities of elders' speech. Aside from their obvious benefits, school education and modern mass media further distract children from the oral traditions transmitted by their grandparents.

3. TONOGENESIS

The Kenhat dialects are particularly informative for the study of tonogenesis in Tibetan. Some of the problems described below for Gya are also known from Tabo Spiti (Veronika Hein, p.c.). Both dialects warrant an in-depth phonological study. The following observations are based primarily on the (self-) perceptions of the consultants.

It is not entirely clear which of the Kenhat dialects can be described as having phonemic tone. Three of the consultants denied that there were phonetic tonal distinctions in their dialects.

The Leh consultant with whom I worked in 2006 was not at all aware of a tonal difference in Ladakhi dialects, and, confronted with my description and exaggerated pronunciation, explicitly denied that she would produce anything like that. My impression, however, was that her devoiced consonants were, at least occasionally, accompanied by a lower pitch and a falling-rising contour. At one occasion, the difference was so striking that I decided to record some of the crucial word pairs, but since the consultant immediately became more self-aware of her pronunciation, the tonal distinction broke down.

The Cemre consultant was not able to hear the differences in the intonation of the Gya narrator, which were absolutely obvious to the Gya consultant. The Cemre consultant grew up with her mother's sister in She, and it is possible that this has influenced her auditory perception. Unfortunately, I could not check her articulation.

The Hameling consultant denied that there could be any difference between /put/ < *bud* 'get free, run away' and /put/ < *phud* 'let free, take off' and her intonation was, in fact, identical (no falling-rising tone contour in the first case). Tone is likewise not reported in neighbouring Manda. Similarly, Thomas Preiswerk (p.c.) could not observe any Zanskari dialect with tonal distinctions. The Hameling consultant used to work for farmers in the Sham areas since her late childhood and picked up the dialect of Khalatse very well. This again might have interfered with her speech production, but less probably with her auditory perception. It turned out that the possible tonal minimal pairs are not very frequent in her dialect and relate mainly to intransitive-non-agentive and transitive-causative verb pairs. In these cases, the ambiguity is easily resolved from context, at least in an ordinary conversation. The same is true for Manda and all other dialects of Zanskar, as well as for Leh.

The situation is certainly different in the Gya dialect, where initial fricatives are completely missing and a tonal distinction is apparently more important for understanding. Both the Gya and Shara consultants were able to produce clear minimal pairs, showing both a difference in register or pitch and in intonation, i.e. a falling-rising tone contour on the vowel for the low tone and a level tone contour for high and neutral tones. However, whenever the consultants produced longer example sentences, the difference tended to disappear, and the same could be observed in the Gya narration. In 2006, becoming more aware of her own speech, the Gya consultant stated that the unvoiced low tone stop consonants are actually semi-aspirated, and this could be verified by a primitive test (holding the back of my hand a short distance from her lips), but, again, the feature tended to disappear in free speech.

In free speech (including recorded narrations), the falling-rising tone contour appears to be the main distinctive feature, to my ears at least. The Gya consultant was also able to hear a tonal difference in the narration of Stok, and again, after some time, I was able to identify a falling-rising tone contour in those words which she described as being of low tone, e.g. /palaŋ/ [pǎlaŋ] < *balan* 'cow'.

Interestingly, she did not hear or did not expect to hear any tonal difference in Shamskat speech. This was somewhat surprising, since in all dialects I have difficulties hearing those voiceless consonants as voiceless that originate from voiced consonants in Old Tibetan. This difficulty cannot be solely due to my knowledge of the written form, but appears to be caused in part by a 'wrong' segmentation of the continuum between voiced and unvoiced due to my own dialectal (Bavarian) background and in part triggered by an unconsciously perceived accompanying phonetic feature, perhaps the same that results in the Gya consultant hearing low tone.

What made me sceptical about the tonal properties, is the fact that the Gya consultant, who is a trained singer, was not able to perceive the tone contour as a distinctive feature, although she always made the contour the more pronounced the more she wanted to demonstrate the tonal difference.

This became clear when we got temporarily lost in phonetic details. Perhaps due to her training as a singer, the Gya consultant has an increased awareness of subtle pitch differences between the various consonants and vowels according to their articulatory position. She, therefore, described dental consonants as being lower or similar to labials,

these as lower than velars, and these again lower than palatals ($t \geq p > k > tʃ$), but the exact ranking could vary somewhat with the type of articulation. Voiced consonants were perceived as being lower than unvoiced consonants originating from a voiced one, these again lower than aspirated consonants, and those lower than an (originally) unvoiced, non-aspirated consonant ($g > k (< \emptyset g) > kh > k$).

But in this case, the ranking could be completely overthrown by the ranking of vowels, which is more or less binary: *a* and *o* being perceived as low, *i* and *u* as high.³⁵ The vowel *e*, if realised as [e], would be likewise classified as high, but the consultant has a strong tendency to pronounce it as [ɛ] or even [æ] in elicited words and sentences, and this pronunciation is in line with its classification as ‘low’. Aspirated consonants as well as unvoiced sibilants were initially classified as ‘low’, later as ‘neutral’. Quite surprisingly, and in contrast to the Shara consultant, the Gya consultant did not describe plain nasals as lower than voiced stops, and this relative height (but still in opposition to high tone nasals resulting from clusters) might be the reason why nasals in the coda position or at a following syllable onset interfered with the consultant’s perception of tone: syllable final nasals, in particular *ŋ* and *m* regularly led to a classification as ‘high(er)’. The same effect occurred when an open syllable was followed by a syllable with nasal or high tone onset.

To give only one example of the complexity and subtleness of the consultant’s perception, the low-tone nasals with ‘low’ vowel *a* were ranked in between the ‘neutral-tone’ aspirated velars with ‘high’ vowel *i* or *u* and the low-tone unvoiced velar with ‘high’ vowel:

ga > gu > kha > ka > ku > gi > khi / khu >
ma / na / ja / ŋa >
ki / tri > k̄ā > k̄ū > k̄ī

With all these subtle phonetic distinctions, the binary phonemic tone distinction seemed to be lost completely, and it was only consistent when the consultant repeatedly classified words such as /kōre/ *kore* ‘cup’ and /tā/ *rta* ‘horse’ as ‘low’. Finally, on understanding the various interacting factors and the relativity of each statement, I used ex-

³⁵ This, at least, is not only due to the consultant’s particular musical awareness. A second consultant, with whom I had the opportunity to work in 2009, got several times confused, misclassifying at first low tone words with the ‘high’ vowels *i* or *u* as having high tone and arriving at the correct description only after a lot of thinking.

actly these two words as fixed points of comparison to establish a ‘high tone’ for a level intonation despite a ‘low’ vowel, particularly when there was no low tone counterpart to be found with the exact match of vowel and final.³⁶

While the tonal distinction established by this method roughly corresponds to what a Tibeto-linguist would expect, I observed some anomalies, which could indicate that ‘tone’, whether defined as pitch or register or defined as tone contour or as a combination of both, is not yet a true phonemic feature in the dialect of Gya, despite the fact that a few minimal pairs can be found.³⁷ As we would expect, plain

³⁶ We used the terminology /rombo/ *rompo* ‘fat, stout’ for low tone and /trhamo/ *phramo* ‘thin’ for high tone, alternatively to *phoskad* ‘male voice’ for low and *moskad* ‘female voice’ for high tones. The expressions *rompo* and *phramo* are common among musicians, but obviously also understood by non-professionals (Rebecca Norman, p.c.). This terminology was not without disturbing side effects. When we discussed family terms based on the old family ‘prefix’ *a-*, the consultant divided these somewhat arbitrarily in /rombo/ and /trhamo/, changing the classification for some of them from week to week or day to day. When I realised that the majority of the terms for females were classified as ‘thin’ and the majority of the terms for males as ‘fat’, and joked that especially the /ane/ ‘aunts’ were loosing and gaining weight, the consultant started reclassifying all terms along gender lines. Nevertheless, after the long break between my 2005 and 2006 fieldwork, she eventually declared that the differences were artificial and all terms were ‘high’ tone, in line with linguistic expectations.

³⁷ Quite to the surprise of most Sinologists, Beckwith (2005: 10) challenges the concept of phonemic tone in Chinese, since, according to him, a wrong intonation in “actual connected speech” might not necessarily lead to a different meaning for the listener, whereas any change in consonants and vowels does. He describes tone as “at best, an extra, a redundancy feature” that together with other features could enhance clarity. Beckwith, however, does not seem to be aware that different kinds of minimal pairs have different tolerance features, thus the wrong choice of articulation place is typically less tolerable than the wrong choice of articulation manner (particularly when the articulation places are quite distant) and the latter might be less tolerable than mistakes in accentuation or tone (I myself owe this insight to discussions with Thomas Preiswerk). Depending on the language, tonal contrasts may be quite articulate or very subtle. In the latter case, speakers certainly make use of all other available cues, especially contextual ones. This makes it very difficult to define the stage where a merely phonetic and gradual differentiation of tones turns into a truly phonemic, that is, discrete opposition.

Given the fact that a phonemic opposition cannot be gradual, by definition, one could perhaps even argue that what is perceived as low and extra low tone in Gya are both concomittant features of two types of voicing, which might perhaps be called ‘semi-voiced’ and ‘enhanced voicing’. The former type may be characterised by its additional aspiration feature. The latter type is found with the additional feature of prenasalisation in various Tibetan varieties, e.g. in Zanskari, Tabo Spiti (Veronika Hein, p.c.), and Kyirong (Huber 2005: 15; cf. also note 41 below for her description), sometimes also with fricativisation and/or aspiration as mentioned in note 26 above.

nasals and laterals were typically classified as being low tone while those with a pre-radical were classified as high. The same effect should have been found with the palatal approximant *y* as a radical, but quite a few words that have an Old Tibetan pre-radical and that have high tone in the Shara dialect were qualified as low. As these words are found only with the ‘low’ vowels *a* and *o*, high tone is apparently only perceived when the need for differentiation is high, e.g. /j̄ar/ **g.yar* ‘die, croak, perish’,³⁸ in contrast to /j̄ā/ *gyaḥ* ‘feel ticklish’ and /j̄ār/ *gyarcas* ‘borrow’. The most striking case is perhaps the contrast between high tone /j̄ök/ **g.yog* ‘twist (threads)’, although not corroborated by any classical written form, and the two compounds based on this verb: /j̄ökto/ **yogto* ‘coarse thread’ and /j̄ökʃiŋ/ **yogšiiŋ* ‘stick for twisting’ with low tone. In several other cases, the consultant was quite confused about the proper classification.³⁹ Family terms, starting with a glottalised *a* in Old Tibetan, were arbitrarily classified as either low or high (see also note 29), while all were unmistakably classified as high by the Shara consultant.

Some anomalies in the nasal class were corroborated by the Shara consultant and are thus of historical interest: /mākpa/ ‘husband, son-in-law’ was unanimously classified as being high tone, thus the alternative spelling *dmagpa* and the relation to *dmag* ‘army’ mentioned by JÄK are obviously correct for Ladakhi.⁴⁰ Another, quite unexpected case of high tone is GYS /mōl/ for CT *mol* ‘speak (hon)’, where other tonal varieties of Ladakh and Western Tibet show low tone realisation, e.g. Trangtse and Man-Merak, both in Upper Ladakh, and Tabo Spiti (CDTD). However, the Balti form /hmo/ likewise indicates that

³⁸ The Domkhar pronunciation /hjar/ points to a pre-radical.

³⁹ E.g. /j̄āk/ *g.yag* ‘(male) yak’ and /j̄ökpo/ *g.yogpo*, because of their ‘low’ vowel, were repeatedly classified as having low tone, although they were consistently uttered with a level tone contour. Highly surprised, I challenged this from time to time, and after a while, the consultant first conceded that it might perhaps be ‘neutral’ tone, while in 2008 she finally corrected herself, assigning the same tone to /j̄āk/ as to /j̄ār/ ‘borrow’.

⁴⁰ Note, however that other Western Tibetan dialects have a low tone realisation, e.g. Drokpa (Bawa, Bongba Tshogu), Dingri, Mustang /mākpa/ ‘bride groom, son-in-law (living in the wife’s family)’ (Kretschmar 1986: 420, Herrmann 1989: 360; Kretschmar 1995 IV: 143). Low tone realisation is also reported from Ngari and Kyirong, but otherwise it seems that a greater part of the Central Tibetan dialects, as well as Kham and Dzongka, show high tone realisation (CDTD). By contrast CT *mig* ‘eye’ < OT *dmyig* is found with high tone or even pre-radical in most modern dialects (cf. CDTD). The Gya pronunciation /mīk/ is no exception.

the word must have had (a variant with) a pre-radical: **dmol*, as suggested in the CDTD, or **smol*, as found in the writings of an Upper Ladakhi scholar (RN).

Interestingly, also the spelling contrast between CT *gñis* ‘two’ and *ñišu* ‘twenty’ is reflected in a tonal opposition /*ɲī*/ and /*ɲi̯*fu/, similarly that between *gnam* /*nām*/ ‘sky’ as used in isolation and *nam* /*ṇām*/ id. as used in compounds and collocations. By contrast, /*mab̥*ʒa/ ‘peacock’ was unanimously classified as low tone, making the relation to the classical spelling *rmabya* somewhat dubious. But low rather than high tone was also observed for *gnastshul* ‘news’: GYS /*ṇatsul*/ ~ /*ṇadzul*/, but SHA /*nātsul*/ and *gnaslugs* ‘condition’: GYS, SHA /*ṇadluk*/, while the dialects of Shayok and Laga showed the ‘regular’ high tone: SYK /*nāzruk*/, LAG /*nālruk*/. The word *rmilam* ‘dream’ was classified as high: /*mīlam*/ by the Gya consultant, in accordance with linguistic expectation, but as low: /*mīlam*/ by the Shara consultant. Unexpected low tone was also observed for GYS, SYK, and LAG /*lan̥*gja/ *lhanrgyas* ‘together’ and other words with initial *lh* in CT.

In general, the Shara consultant, although a singer herself, never made as subtle distinctions as her colleague from Gya. Independent of the vowel and the final, the Shara consultant distinguished three main tones: high, neutral, and low, with further graduations of low tone:

- ‘thramo’: the originally voiceless, non-aspirated consonants as well as the nasal, palatal approximant and lateral when combined with a pre-radical
- ‘normal’ (i.e. neutral): aspirated consonants, voiceless sibilants, and the voiceless laryngal
- ‘rompo’: devoiced consonants
- ‘tesaṅ roma’ (lower than that): voiced consonants
- ‘tesaṅ roma’: plain nasals.

Both the Gya and Shara consultants agreed upon the medium or neutral tonal character of aspirated consonants. This is particularly interesting as it matches almost perfectly the traditional grammatical classification of the four consonant rows or articulation types as *pho* ‘male’, that is, ‘forced’ or ‘hard’ (k), *manij* ‘neutral’ (kh), *mo* ‘female’, that is, ‘soft’ (g), and *šintu mo* ‘extremely female/soft’ (ŋ).

The Changthang dialects of the Durbuk and Nyoma blocks are likewise tonal dialects. However in the case of Nyoma, a clear tonal opposition exists only for words having an voiceless non-aspirated radical

in Classical Tibetan (high tone) and those having a voiced radical, not preceded by any pre-radical. Outside this opposition tonal descriptions turned out to be more or less arbitrary, independent of vowel properties or syllable codas, and the consultant did not perceive tone as a three or four-way distinction and thus lacked the notion of ‘neutral tone’. In fact, voiced consonants were often described as higher than their devoiced counterparts.

A similar feature has been described for Derge (Häsler 1999: 257-275, for high pitched voiced initials see pp. 267, 269 with further references). Although there is a certain tendency for low pitch realisation of voiced consonants, the pitch may vary considerably from word to word (partially in accordance with the degree to which the consonant has been devoiced), but also in different contexts. Häsler thus argues that pitch only becomes a distinctive (phonemic) feature when the consonant has become completely devoiced. But this neither explains the unexpected high pitch realisation of voiced consonants nor the variations in its realisation.

The contrast between the Nyoma and Derge data, on the one hand, and the Gya and Shara data, on the other, clearly demonstrates that the stage where pitch contrasts become phonemic can be reached by two completely different developmental paths. On the first path, exemplified by Tibetan grammatical understanding as well as by the dialects of Gya and Shara, the actual realisation of voiced consonants follows the tendency of low realisation, so that the phonemic property merely results from a shift of acoustic awareness, triggered by the devoicing process. As a natural result, the devoiced initials also lose part of their low pitch properties.⁴¹

On the second path, as exemplified by the unrelated dialects of Nyoma and Derge, the actual realisation contradicts the natural tendencies and calls for an explanation. This phenomenon could perhaps be understood as a contrastive reaction *vis-à-vis* devoiced initials or the neu-

⁴¹ This is corroborated quite nicely by the Kyirong data. According to Huber (2005: 19f.), the unvoiced consonants, derived from originally voiced initials show middle tone, those derived from clusters of oral stops and voiced radicals show low tone plus breathy voice, those derived from original clusters of nasal and voiced consonants remained voiced, but display a tonal pattern between middle and low tone. What looks rather like a contradiction, finds its explanation in the fact that voiced consonants are realised with a strong prenasalisation, “exclusively used to reinforce the voiced character”. However, the “voiced consonant *can be almost devoiced* after the prenasalization” (p. 15, emphasis added).

tralisation process in general: only those initials that are in the process of losing their voiced quality develop an enhanced and marked low pitch realisation. By contrast, all other initials are interpreted as high and, as in the case of Derge, consequently even produced with a higher pitch. It would be interesting to test whether Nyoma speakers in general, or at least the consultant in question, actually produce voiced initials with a high pitch.

4. PRESERVATION, GENERALISATION, AND EVENTUAL LOSS OF THE OLD TIBETAN SUFFIXES *-S/-D* (STEM II, IV) AND *-D/-S* (STEM I)

When one looks only at the verbal stems and not at the complex verb forms that are based on these stems, one may easily get the impression that the Kenhat dialects have lost all Old Tibetan suffixes, while the Shamskat dialects have well preserved the Old Tibetan suffix *-s* (~ *-d*) of stem II and to a certain extent also of stem IV. The picture is, however, much more complex, and one finds traces of the former suffixes for all three stems in the Kenhat dialects. Even more, these traces are, in certain surroundings (such as the directive and question marker), even more frequent than the corresponding overt Shamskat morpheme. I will begin with stem IV, where the data is obvious and uncomplicated, and will discuss the quite problematic findings concerning stem I last.

4.1. *Stem IV with directive marker /-aŋ/*

In Shamskat and Leh, the imperative suffix *-s* is found only in verbs with an open syllable root. In the Kenhat dialects it is preserved and even generalised before the directive marker */-aŋ/* → */-saŋ/* (CT *dan*) in the positive command form. This feature has been systematically checked only for Gya. Here the *s*-form is always optional, but nevertheless frequently used. According to the consultant, the *s*-less form indicates that the action is quite urgent and should be performed immediately, whereas the *s*-form signals that it can also be performed somewhat later. The *s*-form thus co-occurs with all agentive verbs, independent of their shape. The form */-saŋ/* appears after open syllable roots as well as after closed syllable roots, including those that do not allow a suffix *-s* in Old and Classical Tibetan and those where the Old

or Classical Tibetan stem IV lacks a suffix, e.g. /kok-saŋ!/ *kog-s-ḥaŋ/saŋ* besides /koaŋ!/ *kog-ḥaŋ* ‘peel [it] off!’ (CT *ḥgog* : *bkog* : *dgog* : *khog*), /kok-saŋ!/ *kog-s-ḥaŋ/saŋ* or /koaŋ!/ *kog-ḥaŋ* ‘stop [it!]’ (CT *ḥgegs* : *bkag* : *dgag* : *khog*), /kor-saŋ!/ *skor-s-ḥaŋ/saŋ* besides /koraŋ!/ *skor-ḥaŋ* ‘turn[it]!’ (CT *skor* : *bskor*d* : *bskor* : *skor*d*). In the prohibitive, which is based on stem I, the *s*-form does not occur.

For Nyoma it can be said that the directive marker /-saŋ/ is obligatory at least for open syllable roots, in which case it may or may not be accompanied with a fronting of back vowels. A likewise cursory survey of the Pipcha verbs showed that the additional *-s* is obligatory after vowels, optional after final *-r* and *-l*, and not permissible after all other final consonants. Quite interestingly, in Pipcha a final *-s* morpheme is commonly realised as a dental fricative /ð/, but at least the speaker whom I interviewed also accepted the sibilant realisation for the directive marker as an infrequent option. A similar sound change can also be observed for the past tense suffix *-s* (see below).

4.2. Stem II and past-tense forms

Generally, the Shamskat dialects (except the Nubra dialects) have preserved the past-tense suffix *-s* only for agentive verbs and neutralised it for most non-agentive verbs.⁴² But the Shamskat dialects have also generalised the suffix *-s* in places where Old and Classical Tibetan do not have any suffix (e.g. /taŋs/ ‘gave’, OT *gtoŋ* : *btan* : *gtan* : *thon*), do not allow a suffix for phonetic reasons (e.g. /sats/ ‘killed’, OT *gsod* : *bsad* : *gsad* : *sod*), or would allow only the suffix *-d* (/ɲäns/ ‘listened’, OT *(m)ñan* : *(m)ñan*d* : *mñan* : *ñon*). On the other hand, the past-tense suffix of agentive verbs is often dropped without leaving any trace in Balti and similarly in the western Sham narrations.⁴³

In northern Nubra, post-final *-s* is generally dropped, but the past-tense suffix may be preserved in questions (see below) and in nominalised verb forms, e.g. ARA /rgjaŋpin/ ~ /rgjaŋspin/ *brgyaŋ-(s)-pin*

⁴² The former suffix might have been either dropped or lexicalised. A few non-agentive verbs, however, still have two stems, but the distinction of the two forms might depend on the dialect or even the individual speaker. On the other hand, stem neutralisation can also be found with agentive verbs (Zeisler 2004: 620-622).

⁴³ In such cases, my consultants would say that the suffix is there in principle, but cannot be heard due to the speed of speech. A similar careless pronunciation or drop can also be observed in the Shamskat dialects with respect to the *-s* of the ergative marker.

(-*payin*) ‘(I) stuffed’. Very infrequently, the past-tense suffix shows up in nominalised forms of non-agentive verbs in Shamskat, e.g. DOM /kar/ ‘become white’ (CT *dkar* ‘(be) white’): /rguntʃik karspa zb^əartʃik sɲön/ *dguncig dkar-s-pa dbyarcig sɲon* ‘When the winter had been white, the summer will be green’. Other traces of a lost suffix are not found in the Sham dialects, whereas in Balti, the aspiration of a following nominaliser /-pa/ → /-pha/ gives evidence of a former suffix, similar to the fricativisation in the Kenhat dialects. In a few cases, this trace can also be found with non-agentive verbs, cf. Kharmang /tʃhaq/ *chag* ‘break [-ctr]’, /tʃhaq-pha/ < *chag-s-pa* ‘broken’ and /thop/ *thob* ‘find’, /thop-pha/ < *thob-s-pa* ‘found’ besides /ʃi/ *ši* ‘die’ and /ʃispa/ *ši-s-pa* ‘dead’ (Ghulam Hassan Lobsang 1995: 5-6).

By contrast, most of the Kenhat dialects have dropped the past-tense suffix -s, leaving an obvious trace only in the verb stem with the above-mentioned Kenhat vowel change of open syllables and the deletion of final clusters with velar final and suffix (-gs, -ɲs).

Nevertheless, traces at morpheme boundaries show that the suffix must have been generalised even for non-agentive verbs at an earlier stage. Altogether there are four indicators:

- (a) Vowel change or diphthongisation
- (b) Loss of final clusters -ɲs and -gs
- (c) Aspiration or fricativisation of a following nominaliser *pa* → [pha] ~ [ɸa]
- (d) Retention in (past-tense) questions, cf. LEH /skjotsa?/, GYS /kjōtsa?/, ARA /skjora?/ ~ /skjodza?/ *skyod-da* ~ *skyod-s-sa/ha* ‘did [you/s/he] (already) come?’, NYO /ame nūm trɯlsa?/ *amaḥi snum *grul-s-sa/ha* ‘Did mother apply oil [on the child’s face]?’

As far as the Ladakhi dialects are concerned, the combination of features (a), (b), and (c) is restricted to the Upper Indus, Gya-Miru, and Zanskar dialects, whereas (d) has been observed also in northern Nubra, Leh, and the Changthang dialects. As already mentioned, feature (b) can be found in other Western Tibetan varieties, (c) is also observed in Balti, whereas (a) is typical for most of the modern Tibetan varieties and might be found in the Changthang dialects as well. Features (b) and (c) and their combination can be exemplified with the verb GYS, CEM /taŋ : ta ~ tã : toŋ/ *btan* : *btan̩s* : *toŋ* ‘give’: /khe ta/ *khoḥi btan̩s* ‘s/he gave’, /ɲe tafiŋ/ *ɲaḥi btan̩spin* ‘I gave’.

Depending on the dialect, fricativisation can be found with all agentive verbs plus open syllable non-agentive verbs (Cemre), or with all

agentive and almost all non-agentive verbs, independent of the syllable structure (Gya). In a few cases of non-agentive verbs, the fricativisation is blocked in Gya, but it is unclear when and why. Perhaps such verbs are mere relicts, as yet unaffected by the generalisation rule.

The question marker has been systematically checked only for the Gya dialect. In most cases, the question marker can take only the form /-sa/ (or at least this would be the clearly preferred form), in few cases both forms. When both forms coexist, the *s*-form might have an admiring function, expressing surprise, a greater emotional involvement, or indignation, e.g. /matosa?/ *masto-s-sa* ‘did [it] really not matter [to him/her]?’ but /matoa?/ *mastoḥa* ‘didn’t [something] happen [to him/her]?’ Less frequently, the *s*-less form might have this function. Otherwise, the *s*-form might refer to a somewhat more distant past and the *s*-less form to a more recent or more immediate past. Which form of the question marker is chosen appears to be somewhat unpredictable and conditioned more by the context of the utterance than by the semantics of the verb.⁴⁴

In Pipcha, the past tense suffix left its trace in the optional fricativisation of the (voiced) nominaliser as well as in the loss of final clusters with the velar nasal (less clearly with velar stop). Additionally, the past tense suffix is preserved in the question marker, following stem II. As in the case of stem IV, the morpheme is realised as a dental fricative /ð/, alternatively also as /θ/. Due to its unstressed position, vowel *a* of the question marker (and other morphemes) is commonly realised as /e/, but the consultant I interviewed also accepted forms with /a/.⁴⁵ On the basis of a cursory survey, it turned out that the past tense suffix /ð/ is obligatory for agentive verbs (except after final *-t*, where it tends to be omitted) and optional for non-agentive verbs. In the latter case, it may convey a notion of surprise.

⁴⁴ Due to growing language awareness, the consultant accepted fewer *s*-less forms in 2006 than in 2005 and claimed more vehemently that such forms were only used by Leh speakers. Nevertheless, she still accepted *s*-less forms for non-agentive and agentive verbs alike. In 2007, I had to remove about 90% of all remaining *s*-less forms from the documentation; they were, if at all, only accepted for non-agentive verbs. In 2008, the speaker, with only one or two exceptions, did no longer accept *s*-less forms, even for non-agentive verbs. While I am unable to repeat such checks regularly, it is evident that some linguistic features allow a certain variability, but due to various influences the consultants keep changing their minds about the actual extent of the variability.

⁴⁵ According to another consultant with whom Thomas Preiswerk worked, this might be due to intentional switching to the Lungnak dialect.

4.3. Stem I with the future participle or the causative auxiliary

A trace of an over-generalised suffix *-s* seems to appear also in stem I, or more precisely in a following future participle morpheme *cas* ~ *ces*: Purik /-tʃa/ ~ Sham /-tʃas/ ~ Leh /-tʃes/ ~ Upper Ladakhi /-tʃe/, and in a following causative auxiliary /tʃuk/ *bcug*, according to the all-Ladakhi rule: /s/ + /tʃ/ → /ʃ/. Again, this feature has only been systematically checked for the Gya dialect.

Here, the future participle appears as /-tʃe/ after final *-k*, *-t*, *-n*, *-p*, and, *-m*. Some verbs are also more or less acceptable with the form /-tʃe/.⁴⁶ After vowels, the regular allomorph is /-ʒe/, due to intervocalic voicing /-tʃe/ → (/dʒ/ →) /-ʒe/ (something that does not happen to the causative morpheme /tʃuk/, which is thus not fully integrated into the word unit). The allomorph /-tʃe/ is found under the following conditions: regularly after final *-r*, mostly after *-l*, and infrequently after *-ŋ*. In the latter case, the nasal might be dropped. While the change after the dental fricatives *-r* and *-l* could perhaps also be interpreted as an extension of the above mentioned sound change rule, thus /r/, /l/, /s/ + /tʃ/ → /ʃ/ as suggested by Thomas Preiswerk (p.c.), the loss of the nasal and the optional occurrence after stops, by contrast, demonstrate the former presence of a sibilant. The allomorph thus results from a regular sound change after an original final sibilant or, at least, after an original final dental fricative, including the sibilant *-s*.

Theoretically, it is possible that the allomorph /-ʒe/ results from intervocalic voicing of */-se/, and would thus likewise indicate a regular over-generalisation of suffix *-s* after vowels. The interchange of /dʒ/ and /ʒ/, however is not uncommon in the Ladakhi dialects, cf. LEH /khardʒi/ ~ GYS /kharʒi/ *kharji* 'food', Balti /ʒu/, Ladakhi /dʒu/ *hju* an honorific interjection, LEH /dʒudʒu/, but KHAL, DOM /dʒuʒu/ *hjuhju* 'please', and thus /ʒe/ could equally well result from /dʒe/ (</tʃe/ due to intervocalic voicing).

Occasionally, the future participle as citation form and the complex future tense forms based on the participle show a different behaviour. In a few cases, the *s*-trace is only positively attested for the future tense forms and, in one case, only for the negated form. A process of dropping the *s*-trace in the future participle may have started, as the consultant occasionally indicated that the *s*-trace could be found in the

⁴⁶ In some cases, this was classified as old people's speech or even more specifically as 'mother's speech', in which case it might be an Upshi feature.

speech of the older generation. In several cases, she also changed her mind about which form to use, which might be indicative of an ongoing process of change, but could well be due to the constant influences of the Leh dialect on her mother tongue, on the one hand, and an increased awareness due to the investigation context, on the other.

The causative morpheme shows a somewhat different development. The form /-fuk/ is in most cases only optional (the preferences vary from verb to verb), but in contrast to the verbal noun it can be found quite frequently after final *-k*, *-t*, *-n*, *-p*, and, *-m*, cf. /kjoktʃe/ *kyogces* ‘to change one’s direction, turn oneself’, caus. /kjoktʃuk/ ~ /kjokʃuk/ *kyog-(s)-cug*; *cug*; /thritʃe/ ~ (less commonly) /trhitʃe/ *ḥkhrīd₂-(s)-ces* ‘to be heavy with young’, caus. /thritʃuk/ ~ /trhitʃuk/ *ḥkhrīd-(s)-cug*; /trapʃe/ *bkrabces* ‘to clean (the crop) from husk or dirt’, caus. /trapʃuk/ ~ /trapʃuk/ *bkrab-(s)-cug*. On the other hand, the *s*-form is only rarely found after vowels.

This hidden suffix *-s* might perhaps go back to the Old Tibetan present tense agentive suffix *-d/-s*. It could perhaps also be due to a general process of stem assimilation. The feature does not seem to be prominent in the Cemre dialect.⁴⁷ Nevertheless, one can find alternative forms such as /zerʃe/ *zerces* ~ /zeʃe/ *zer-s-ces* ‘to say’.⁴⁸ In the Pipcha dialect, the fricative forms only appear after vowels and nasals in OT/CT roots with final *-s*,⁴⁹ and after final *-r*, cf. /ðen ʃheʃe/, /^o ʃheʃuk/ CT *bden ches* ‘believe’, /drā:ʃe/, /drā:ʃuk/, cf. DOM /draŋs/, GYS /dra/ < **ḥgrāŋs* (CT *ḥgrāŋ*) ‘be satiated’, /gorʃe/, /gorʃuk/ *ḥgor* ‘be late’.

It appears thus that the generalisation of the various *-s* suffixes started in the eastern dialects, where it affected more verbs than in the western dialects. But it also seems that with the regular use of evidential auxiliaries for present tense expressions, the grammatical function of the past-tense suffix *-s* became bleached. Possible phonological pressures to avoid final clusters may then have led to its eventual loss in the eastern dialects and to the observable instability in the western dialects. It is quite likely that the loss of the imperative suffix followed similar lines. Both developments—that of generalisation and that of deletion—may have spread at different speeds.

⁴⁷ But this may be due to the consultant’s socialisation or to normative pressures.

⁴⁸ Probably via */ze:s/ + /ʃe/; the final cluster *-rs* is similarly reduced in the Shamskat dialects.

⁴⁹ In these cases, the final sibilant may have been part of the original OT root or might have been lexicalised at a later time.

5. FROZEN CLUSTERS IN GYA COMPOUNDS

Many Tibetan dialects preserve the former pre-radicals in medial position, i.e. in the second elements of compounds when the first syllable ends in a vowel. In that case, the former onset of the second syllable moves to the coda position of the first syllable, leading to a shift of the syllable boundary.⁵⁰ The Ladakhi dialects are no exception (see Shawe 1894 for an early discussion). As could be expected, frozen clusters are generally more common in the Shamskat dialects than in the Kenhat dialects, but also more common in peripheral dialects. They are much less frequent in the dialects around Leh. Due to the prestigious nature of the Leh dialect and due to an increasing normative influence of the reading style taught in schools, one can observe a tendency to suppress such frozen clusters, especially among the younger generation.

Gyahat plays the role of a very peripheral dialect. Of all the dialects surveyed so far, it shows the greatest number of frozen clusters, outnumbering even the western-most western Sham dialect of Achinathang, which comes second before Domkhar. Some of the rare compounds are only attested in Gya, Domkhar, and/or Achinathang, and in the Purik varieties spoken by the bilingual Dards of Dah and Garkhon (to the northwest of Achinathang) and Dras (in the Kargil district). In the following, I will give only a few examples with the former grammatical *b-* prefix:

- GYS /ʃrap-tri/ *skra-bkrus* ‘hair washing’, GYS /ʃrap-fat/ *skra-bšad* ‘combing’, GYS, GARK /ʃrap-ʃal/ *skra-bšal* ‘rinsing of the hair’
- GYS /khap-tri/, DOM /khatrus/ ~ /khap-trhus/ *kha-bkhrus* ~ *kha-bkrus* ‘washing of mouth (or face)’ (GYS: only for animals), GYS /burfe ~ burbe gop-tri/ *sburpaḥi mgo-bkrus* ‘beetles’ head-washing’ (jokingly for a rainy day, when the beetles come out of the earth)
- GYS /tāp-ʃrat/, DOM /rhtaʃrat/ ~ /rhtap-ʃrat/ *rta-bskrad* ‘chasing away a horse (from the field)’, GYS /tap-ʃat/, DOM /rhtap-ʃat/ *rta-bšad* ‘stroking or brushing of the horse’ GYS /dzop-ʃrat/ *mdzo-bskrad* ‘chasing away a *dzo* (from the fields)’

⁵⁰ Cf. here and in the following Suzuki (this volume) for Sogpho. The phenomenon of word-medial consonant migration was already observed in the earliest descriptions of Classical Tibetan, beginning with Csoma de Kőrös (1834: 7-8 and 10). Unfortunately, these works are completely ignored in the current discussion of the feature, cf. Shirai (1999).

- GYS /mip-sat (khip-sat)/ *mi-bsad* (*khyi-bsad*) ‘one who has killed or murdered several times,⁵¹ professional killer’ in contrast to /mɨsat (khisat)/ *mi-bsad* (*khi-bsad*) ‘one who has killed a single time’,⁵² ACH /mip-sat/ ‘one who has killed, murderer’, GARK /mip-sat(pa)/ ~ /mip-sot(pa)/ *mi-bsad*(pa) ~ *mi-bsod*(pa), DRS /mip-sat/ ‘murderer, killer’
- GYS /mep-sat/, DRS /mep-sat/, DOM /mesat/ (younger generation) ~ /mep-sat/ (older generation), GARK /mesat/ ~ /mep-sat/ *me-bsad* ‘fire-extinguishing’

These examples are not attested with the labial stop or are not attested as compounds at all in the other dialects surveyed (for many more examples also with nasal prefix and lexicalised pre-radicals, see Zeisler 2009 and Zeisler in preparation).

In some compounds, the same process applies to the (according to a traditional analysis) radical *b* followed by the post-radical *-y-* or *-r-*. The most prominent might be the all-Ladakhi forms /lab-raŋ/ *bla-braŋ* ‘residence for monks’ or /rib-ɕʒa/ ~ /rib-ʒa/ *ri-bya* ‘mountain fowl’. It cannot be precluded that the status of the initial consonant as a pre-radical or a radical was irrelevant for its shift. But it is also possible that the traditional spellings represent, or lead to, the wrong analysis.⁵³ In this context, a very particular set of compounds in Gya, some not attested in any other dialect, might be of special interest. The second syllable, if isolated, always starts with a simple *r*, while the first syllable

⁵¹ E.g. a mentally disturbed person, who has killed several people in fighting. Now the term might also be applied to terrorists.

⁵² /khi/ *khyi* ‘dog’ is often used as an echo word to /mi/ *mi* ‘man’, but of course, /khi(p)sat/ *kyhibsad* may also mean ‘killing or killer of dogs’

⁵³ Apparently, there was no need to differentiate between the sequences pre-radical + radical and radical + post-radical, as in the case of voiced velar plus palatal approximant (where the former sequence is represented by a horizontal and the latter by a vertical combination). The reason might be that exemplars of one of the two sequences were missing or extremely rare. As the early scribes were not trained linguists, it is not necessarily the case that their spellings were always coherent or always represented the correct analysis in terms of pre-radicals, radicals, and post-radicals. This is quite apparent in the case of the sub-scribed radical *-l-*, which is reflected in all varieties as (high tone) *l*, the only exception being the cluster *zl*, (Huber 2005: 31f.). But the regular *b*-prefix for stem II/III in *len* : *blaŋs* : *blaŋ* : *lon/loŋ(s)* ‘take’ has never been recognised as such by Tibetan grammarians.

It is thus possible that sequences of super-scribed *b-* and sub-scribed *y* or *r* represent original sequences of pre-radical plus radical. The same seems to be true for at least some of the combinations of *g-* plus *-r-* discussed below (cf. also Beyer 1992: 72, note 5, 74-79. Beyer should better not be quoted, since throughout his ‘compilation’, he ‘cites’ other sources without giving appropriate references. Unfortunately, in this case, I have not yet come across the original).

ble, if isolated, would end in a vowel, but is, at least optionally, closed by a labial stop in the compound. In one case, the second element is attested as an independent word with a labial cluster onset in the western Sham dialects, e.g. GYS /-b-rak/ or /-rak/ ‘-lining’ corresponding to DOM /brak : braks : brok/ or, with metathesis, /rbak : rbaks : rbok/, also /rak : raks : rok/ ‘join together, attach, add’; cf. GYS /ʃɪk-rak/ *gcig-(X)rag*, /ɲɪb-rak/ *gñis-Xrag*, /sum-rak/ *gsum-(X)rag*, /ʒib-rak/ *bži-Xrag* ‘having one, two, three, or four panels or grids (said of a window)’,⁵⁴ cf. DOM /ɲir-bak/, /sum-brak/, /ʒir-bak/, /ɣar-bak/ ~ /ʃɲar-bak/ (younger generation) *lɲa-Xrag*, /truk-brak/ *drug-Xrag*, /rdun-brak/ *rdun-Xrag*, /gʒat-brak/ *brgyad-Xrag*, /rgur-bak/ *dgu-Xrag*, /ʃur-bak/ *bcu-Xrag*. The Domkhar metathesis points to an original form *sbrag*,⁵⁵ and thus we might substitute *sb* and not only *b* for *X*. The triple cluster would regularly yield /rak/ in most Ladakhi dialects (including present-day western Sham).⁵⁶ We can find a similar compound in all-Ladakhi /khib-raŋ/, KHAL, DOM /khizbaŋ/ ‘dog-fly’, ultimately derived from *khyi-sbraŋ* (cf. JÄK).

There are also other compounds where the second element does not appear as an independent word in the western Sham dialects, such as GYS /doruk/ ~ /dob-ruk/ ~ /dom-ruk/, DOM /rdoaruk/ ~ /rdoab-ruk/ *rdo-Xrug* ‘small stones’; GYS, DOM /ʃab-ruk/, ARA /ʃaruk/ ~ /ʃab-ruk/ (neither form is very common in ARA) *ša-Xrug* ‘little pieces of meat’, or where the second element is not attested with labial cluster

⁵⁴ The consultant could also think of using /ɲāb-rak/ *lɲaXrag*, /gub-rak/ *dguXrag*, and /ʃüb-rak/ *bcuXrag* ‘having five, nine, ten grids’ for the multigrid windows of modern houses in Leh, but so far the new fashion has not yet found its expression in the Gya dialect.

⁵⁵ The consultant, from whom the present data is obtained, would accept the metathesis only in case of triple clusters. But some Domkhar and Takmacic speakers of the younger generation apply the metathesis also to the double cluster *br*. For the moment, I am unable to say whether this is an innovative overgeneralisation or rather typical for the two villages. Apart from Balti, the feature seems to be somewhat exceptional with respect to all other western dialects, where the only form attested so far is Purik /rbi, rbis/ for *hbri* ‘write’.

⁵⁶ Cf. CT *sbrag* : *sbrags* ‘lay, put one thing above another’ WT /rak/ (JÄK; cf. also his WT compounds with numerals!), Balti (Skardo) /rbaq/ ‘pile up, join (in activity), follow, come along’, Purik (Kargil, Ciktan) /zbraq/, eastern Sham (Nurla) /rak/ ‘join together’ (CDTD), western Sham (DOM) /rbak/ ~ /brak/ ~ /rak/ ‘join together, attach, add, give dowry’ (according to a second consultant /rak/ is used only in connection with the goats to differentiate the verb from /brak/ ‘sheer’, but for the main consultant there would be usually no need for such dissimilation). For the regular Balti metathesis in triple clusters, cf. also Biemeier (1985: 212).

onset, such as GYS /doril/ ~ /dob-ril/, DOM /rdoaril/ ~ /rdoab-ril/, ARA /rdoril/ ~ (less frequently) /rdob-ril/ *rdo-Xril* ‘round stone’.

The pronunciation /ril/ might go back to a verb *sgril* : *bsgril* with the meaning ‘make round’. Similarly, we find the compounds GYS /ɲirik/ ~ /ɲib-rik/ *gñis-Xrig* ‘two rows (of turquoise on the *perak*, the women’s traditional headgear)’ and /ɲārik/ ~ (as heard) /ɲāb-rik/ *ɲa-Xrig* ‘five rows, not attested in the other dialects. Here again, the form /rik/ may relate to the verb *sgrig* : *bsgrigs* : *bsgrig* : *sgrigs* ‘put in order, arrange, etc.’. The conclusion would thus be that /ruk/ ‘small piece’ ultimately relates to either *(b)*sgrug* or **sbrug*. In fact, we do find a Classical Tibetan verb *sgrug* : *bsgrugs* : *bsgrug* : *sgrugs* ‘collect, gather, pluck, pick up’, an activity one may perform with ‘small pieces’ in particular.⁵⁷ The Gya dialect provides us with another, even longer, series of compounds with the second syllable /-raŋ/ or /-b-raŋ/, indicating that the entity described by the first syllable is ‘alone, single, nothing but itself, not going together with the prototypical counterpart or accessory’. These compounds are only rarely attested in other dialects. Most people would use expressions with /ʧikʧik/ *gcig-cig*, /ʧikpo/ *gcigpo* ‘single’ or /khoran/ *khoran* ‘itself’ instead. I can offer only a few examples (the full set will be given in Zeisler in preparation):⁵⁸

- /tri_ɹraŋ/ ~ /tri_b-raŋ/ *gri-(X)raŋ* ‘knife without meat’⁵⁹
- /ʧhub-raŋ/ *chu-Xraŋ* ‘nothing but water’
- /ɲab-raŋ/ *ña-Xraŋ* ‘a single fish’
- /tāraŋ/ ~ /tāb-raŋ/ *rta-Xraŋ* ‘horse without companion, foal, saddle’
- /daraŋ/ ~ (rarely) /dab-raŋ/ *mdaḥ-raŋ* ‘arrow without bow’
- /ma_b-raŋ/ *ma-Xraŋ* ‘mother whose child(ren) went to another place’

⁵⁷ Cf. Balti (Skardo) /rgik/ ‘put in order’, Purik (Kargil, Ciktan, and Tshangra) /zgrik/ ‘fit in (trans.)’ and ‘arrange, line up, row, repair’ as well as Tshangra /zgruk/ ‘arrange, make arrangements’ (CTD). DOM /rik; riks/, GYS /rik; /rik(s)/, HML /rik; ri/ ‘arrange, compose, devise (plan), invent (stories, excuses)’ and DOM /ruk; ruks/, ARA /ruk/ ‘collect (wood, nuts)’.

⁵⁸ Note that the consultant provided more compounds as being only of the ‘archaic’ type in 2005 than in 2006, which might be due to her increased exposure to the Leh dialect. But for a few items that were given with both forms in 2006, she had only given the ‘innovative’ form in 2005.

⁵⁹ The knife is usually kept with the meat in the store room.

- /me-raŋ/ ~ (rarely) /meb-raŋ/ *me-(X)raŋ* ‘fire burning for nothing (i.e. without a pot on it)’
- /zuraŋ/ ~ (rarely) /zub-raŋ/ *žu-raŋ* ‘bow without arrows’

Following the above analysis, one could expect an original form **b-sgraŋ* or **sbraŋ* for the second syllable. The closest or most evident Classical Tibetan equivalent, however, would be *hraŋ* ‘alone’ or simply *raŋ* ‘self’, also *reŋbu* or *reŋspo* ‘alone, separate, not belonging to anything else’ (cf. CT *pho reŋpo* ‘a man without family’, Herrmann 1983: 44, folio 266v, line 3). The verb *sgraŋ* (BRGY: *sgroŋ*) : *bsgraŋs* : *bsgraŋ* : *sgroŋ* (BRGY: *sgroŋs*) with the meanings ‘enumerate’ and ‘upbraid, reproach’ (JÄK) does not at first sight seem to be related. JÄK, however, paraphrases the first meaning as ‘reckon up separately’, and it might be this ‘singling out while counting/in order to count’ that underlies the etymon of *raŋ* ‘self’, *hraŋ*, *reŋ(s)-* ‘alone’, *graŋs* ‘number’, the one-stem verb *hgraŋ*, the two-stem verb *bgraŋ* : *bgraŋs*, and the four-stem verb *sgroŋ* ~ *sgraŋ* : *bsgraŋs* : *bsgraŋ* : *sgroŋ(s)* ‘count’. One may note that there is a similar etymological relation between *ril-* ‘round’, *hril-* ‘round, globular, whole’, *gril* ‘roll’, and the verbs *hgril* : *gril* ‘be twisted, wrapped round’ and *sgril* : *bsgril* ‘wind, wrap round, roll, wrap up’.

While it could be the case that the Old or Classical Tibetan forms with plain *r* initial derive from an earlier reduction of the triple clusters *sgr* and *sbr*, even this hypothetical development could be indicative that the element *r* was the semantically most important element and that the other elements were mere derivational elements. Given this possibility, I think it even more likely that the element *r* set discussed above containing the cluster *sgr*, at least, is the root consonant. If we assume that two derivational elements cannot be added at the same time, the element *g-* might have been added at a very early stage of the language, perhaps in regular alternation with *b-*, and the element *s-* followed when the derivational character of the element *g-* was bleached. The forms underlying the compounds may well represent an original alternation *g-r* : *b-r* for stems I/IV and II/III. In any case, the compounds are evidently based on stem II and preserve an original grammatical *b-* prefix.

6. SUBSTITUTION OF FINAL *-S* BY */-T/* OR \emptyset

Looking for an example of word-medial fricativisation of labials in Shara, I suggested, after some futile attempts, the place name Saspol, expecting something like /Sefol/ (if a well known place name could undergo such a dramatic change, at all) or perhaps /Safol/. Quite surprisingly, the village name turned out to be pronounced /Satpol/ and the consultant went on to state that she would say /drat/ for Leh /dras/ *hbras* ‘rice’, while the expected form would have been /dre/. A short survey through a Ladakhi dictionary showed that the final *-s* is typically not replaced in verbs (independent of whether the final originally belonged to the root or was a past-tense marker).⁶⁰ In the case of nominals, however, about 20 to 30% of the lexemes ending in final *-s* show a replacement by *-d*.

This feature is also attested in Gya, but the consultant herself prefers the form with ‘regular’ vowel change or the Leh pronunciation, while describing the forms with a substituted final as belonging to the speech of the parents’ or grandparents’ generation (quite often she gave that form only after several requests).⁶¹

Rebecca Norman drew my attention to the fact that the feature is likewise found in the Changthang dialects, but so far I could verify this only for two dialects of the upper Shayok valley: Shayok and Laga. Again it seems that in the two Changthang dialects, the substitution is more frequent in the speech of the older generation, while the younger generation either uses the Leh form, a form with the ‘regular’ vowel change, or a form where the final *-s* has been dropped without leading to a vowel change. This kind of drop is also found, but considerably less frequently, in Gya and Shara. In the case of original vowels *e* and *i*, vocalisation of final *-s* and drop without vocalisation

⁶⁰ I have so far found only three exceptions: a) the collocation GYS, SHA /tshē dat/ *tshe h̄das* ‘hon. die’, quite probably derived from the adjective GYS /tshedat/ *tsheh̄das* ‘hon. late’; b) GYS /gja/ ~ /gjat/ *rgyas* ‘increase, spread, grow, develop [-ctr]’; cf. also GYS (elder people) /jārgjat/, SHA /jārgjat/, LAG /jārgjat/ *yarrgyas* ‘development, progress’—interestingly, the verb takes the expected form /gje/ in the collocation GYS /saŋ gje/ *sajs rgyas* ‘obtain enlightenment’—; c) the not very common verb GYS /ho:/ ~ /hot/ ~ /hos/ ~ (perhaps only infrequently) /he/ ‘deserve’, which is quite exceptional in that the final *-s* may be preserved. This may point to a (re)-introduction from the classical language at a rather late stage.

⁶¹ As always, there is quite some variation in the perception and acceptance of such forms among individual speakers, e.g. the second consultant from GYS was quite astonished that some of the forms given below should exist.

cannot be discriminated.⁶² In a few cases, one can observe the replacement or alternation with a dental nasal.

In the following list I use the index “S” for the vocalised final *-s*, “V” for vocalisation without drop of final *-s*, “T” for the substitution with the dental stop (“N” for a final nasal), and “Ø” for drop without vocalisation. “L” will be used for the standard Leh forms, which seem to be borrowed. The relevant form is given first, but if a dialect allows alternate forms, the ‘regular’ form with vocalisation and drop will be given first:

replacement by *-d*:

- GYS (mostly) /gjalʃre/s ~ /gjalʃrat/T, SHA /gjalʃrat/T, SYK /gjalʃras/L, LAG /gjalʃre/s ‘prince (hon)’ < *gyalsras*; GYS /Gjalʃrat rimbotʃhe/T *Gyalsras rinpoche*, /ʃrat renbotʃhe/T *Sras rinpoche*
- SHA /gjatpa/T, GYS /gjefa/s, SYK /gjespa/v ‘extensive, wide, real’ < *rgyaspa*
- Gyaik (Rong; RN) /gjutpa/T, Laga (RN), Panggong (RN) /gyunpa/N, but GYS /gjuʃa/ ‘sinew, tendon’ < *rgyuspa*
- SYK (only grandparents), GYS, SHA /ʃötma/T, LAG /ʃöma/Ø ‘artificial’ < *bcosma*
- GYS, SHA /ʃät/T ‘dresses’, SHA /ʃhat/T ‘accessories for dressing’, SYK, LAG /ʃät/T ‘dresses and accessories’ < *cas, chas*
- SHA /ɲiɲrut/T, GYS /ɲiɲri/s ~ /ɲiɲru/Ø ‘effort, perseverance, endurance, persistence’ < *sñiɲrus*
- SHA /thot/T, SYK, LAG /thewa/s ‘extra’ < *thos*
- SHA, GYS /thutmi/T, SYK /thusmi/L, LAG /thumi/Ø ‘representative’ < *hthusmi*
- SHA /datgut/T, SYK /dasgu/ [!!] ‘respect’ < *dadgus*; cf. GYS /datgutʃan/T *dadguscan* ‘very respectful’
- SHA /tuʃt/T, GYS /tus/L (grandparent’s generation!) ~ (younger generation) /tiʃ/s ~ /tuʃt/T⁶³, SYK /tus/L; LAG /tuʃ/Ø ‘time’ < *dus*
- SHA, SYK (only grandparents) /dutpa/ʔT ‘imitation’ < *hduspa* (?)

⁶² I did not yet have the opportunity to check this feature in the Nyoma dialect, but I would guess from the verb stems that the final *-s* would have been frequently dropped without vowel change (perhaps via a final *-d*).

⁶³ In 2005, the consultant generally used /tiʃ/ in free speech, but in 2006 she started using /tuʃt/, probably because we had discussed this feature at length.

- GYS /natsul/_(T) ~ /nadzul/_ʔ⁶⁴ ‘news, condition’ < *gnastshul*
- GYS, SHA /nadluk/_T, SYK /nāzlu/_L, LAG /nāluk/_ʔ ‘situation, condition’ < *gnaslugs*
- GYS (grandparent’s generation, earlier also consultant) /pod/_T ~ (consultant) /pos/_L ‘incense’ < *spos*
- GYS /draŋje/_S ~ /draŋjat/_T, SYK, LAG, SHA /draŋje/_S ‘kind of offering’ < *?hbraŋrgyas*
- SHA /drat/_T, GYS (generally) /dre/_S ~ (few people of parents’ generation) /drat/_T ‘rice’ < *hbras*; cf. also GYS /drethuk/_S ~ /dratuk/_(T), SHA /dratuk/_(T) *hbrasthug* ‘rice soup’, GYS /dradbu/_T ~ (younger generation) /drasbu/_L *hbrasbu* ‘fruit’; but SHA /dribu/_S; SHA /dratsil/_T, GYS /dratsil/_T (middle generation) ~ /drasil/_ʔ *hbrassil* ‘rice with butter, sugar, and apricots’; SHA /saŋdrat/_T, GYS /saŋdre/_S ~ (mostly elderly people) /saŋdrat/_T *bsaŋhbras* ‘rice (hon)’⁶⁵
- SHA /metpo/_T, GYS /mefo/_S ~ /metpo/_T, SYK /mespo/_L, LAG /metpo/_T (old people) ~ /mepo/_ʔ < *mespo* ‘grandfather, forefather, ancestor’; cf. GYS /metpo Gandhi/_T ‘ancestor Gandhi’, /phamefonepharla/_S ~ /phametonopharla/_T < *phamesponaspharla* ‘since ancient times’, SHA /phametpo/_T *phamespo* ‘ancestors’
- GYS /modlam/_T < /mozlam/ (LEH) ‘prayer’ < *smonlam*
- GYS (only grandfather’s generation) /tshatpot/_{TT} ~ (grandfather) /tshfet/_{ST} ~ (consultant) /tshfe/_{SS} ‘seedling’ < *tshasspos*
- GYS /tshedat/_T, SYK /tshede/_S ‘late (i.e. dead)’ < *tshēhdas*; also as verb: GYS, SHA /tshē dat/_T ‘die’ < *tshē hdas*
- SHA, GYS /hotpa/_T ‘worth’, SYK, LAG /ospa/_L ‘deserving’ < *hospa*; also as verb: GYS /fio:/ ~ /fiot/ ~ /fios/ ~ (perhaps only infrequently) /fie/ ‘deserve’
- SYK, LAG /japhet/_{ʔT} ‘discrimination’ < *?yaphes*
- SHA /jargjat/_T, GYS (elder people) /jargjat/_T ~ (younger generation) /jargjas/_L, SYK /jargjas/_L; LAG /jargjat/_T ~ (less frequently) /jargja/_ʔ ‘development, progress’ < *yarggyas*; also as verb: GYS /gja/ ~ /gjat/ *rgyas* ‘increase, spread, grow, develop [–ctr]’
- GYS, SYK (only grandparents) /rudbal/_T ‘tortoise, turtle’ < *russbal*

⁶⁴ The first form apparently implies a final dental stop. The second form could be due to regular intervocalic voicing of simple consonants, or due to a secondary development of the first form.

⁶⁵ The word *hbras* is replaced by /bato/ (from Shina or Kashmiri) in SHY and other Changthang dialects. In the compounds /drastuk/, /drasil/, and /saŋdras/, the word is clearly a loan from Leh.

- SHA /ret/_T, GYS (elder people) /ret/_T ~ (younger generation) /res/_L, SYK, LAG /re/_Ø ‘turn, alternation’ < *res*; cf. also SYK, LAG, SHA /redla/_T *resla* ‘on the occasion (of)’; GYS /rearik/_Ø ~ /redga/_T, LAG /regar/_Ø, SHA /reɣa/_Ø *reshgah(re)* ‘sometimes’
- GYS (grandparents) /lu(d)drel/_T ~ /lidrel/_V now becoming replaced by /luzdrel/_L < *lushbrel* ‘sexual relationship’ but /ledrel/_S < *lashbrel* ‘work-related relationship’
- SHA /logjut/_T, GYS (father) /logjut/_T ~ (consultant) /logju/_Ø ‘history, story’ < *lorgyus*
- GYS /Sangje/_S ~ (some people) /Sangjat/_T, SYK, LAG, SHA /Sangje/_S ‘Buddha’ < *Sangrgyas*
- GYS /sodbu/_T, SHA /sibu/_S ‘adopted child’ < *gsosbu*
- SHA /hat/_T, GYS, SYK, LAG /he/_S ‘exaggeration’ < *has*
- SYK, LAG, GYS /langjat/_T ‘all (hon.)’, SHA /lānkje/_S ‘together’ < *lhanrgyas*

replacement by *Ø*:

- SYK, LAG, GYS, SHA /khalen/_Ø ‘agreement’ < *khaslen*
- SYK, LAG /kɔrul/_Ø, GYS /kɛrul/_S ~ /kɔrul/_Ø, SHA /kɛrul/_S ‘rags’ < *gosrul*
- GYS /gjuɣa/_Ø, SHA /gjitpa/_T [!], SYK, LAG /gjunpa/_N ‘sinew’ < *rgyuspa*
- LAG /ŋɔa/_Ø, GYS /ŋɛsu/_S ~ /ŋɔsu/_Ø, SHA /ŋɛsu/_S < *ŋosla, ŋossu* ‘openly, public’
- LAG, GYS /Dötrup/_Ø ~ /Dürup/_Ø, SYK /Dötrup/_Ø ~ /Dörup/_Ø, SHA /Dütrup/_Ø < *Djosgrub*, a name (common as *Durup* in Leh)
- GYS /pɪŋru/_Ø besides /pɪŋri/_S *sñiŋrus*, see above
- SYK, LAG /tʃho/_Ø, GYS, SHA /tʃhe/_S [!] ‘religion, religious books’ < *chos*; similarly GYS, SYK, LAG /tʃhökjɔŋ/_(S) *choskɣoŋ* ‘guardian deity’, SYK, LAG, GYS, SHA /tʃhokhaŋ/_Ø *choskhaŋ* ‘chapel’
- GYS /nɔtsul/_Ø *gnastshul*, see above
- LAG /nāluk/_Ø *gnaslugs*, see above
- GYS, SHA /lötɾe/_S ~ /lötɾo/_Ø ‘intellect’, also as name < *blogros*
- GYS /drasil/_Ø ~ /dratsil/_T *hbrasil*, see above
- SYK, LAG, SHA /tsöndru/_Ø (also as name), GYS /tsöndri/_S ‘effort’ < *brtsonhgrus*, cf. GYS /Tsöndru/_Ø (name); SHA heard /tsöndrut/_T in Phuktse
- SHA /zahon/_Ø, GYS /zehon/_S ~ /zahon/_Ø ‘food scarcity’ < *zasdkon*

- SHA /zahom/_Ø, GYS /zehom/_s ~ /zahom/_Ø ‘food and drinking’ < *zasskom*
- LAG /jargja/_Ø ~ /jargjat/_T *yarrgyas*, see above
- SYK, LAG, SHA /rikna/_Ø, GYS /rikne/_s ~ /rikna/_Ø ‘knowledge, science’ < *rignnas*; SHA heard the Phuktse pronunciation /riknat/
- SYK, LAG /rupa/_Ø, GYS /rifa/_s ~ /rufa/_Ø, SHA /rifa/_s ‘bone’ < *ruspa*, cf. also GYS /traŋri/_s ~ /traŋru/_Ø, SHA /traŋri/_s *braŋrus* ‘chest bone’
- SYK, LAG, GYS (younger generation) /logju/_Ø *lorgyus*, see above
- GYS /ʃa/_Ø, LAG /ʃe/_s, SHA /çe/_s ‘land rent’ < *šas*

The word *dus* ‘time’ behaves quite unpredictably in compounds:

- GYS /tɨgjun/_s, SHA /tutgjun/_T, SYK, LAG /tɨgjun/_Ø *dusrgyun* ‘always’
- GYS, SHA /tu(t)ʃhen/_{ʔT}, SYK, LAG /tuʃen/_L (not very common in either dialect) *duschen* ‘festival’
- GYS /tutŋan/_T, SHA /tiŋan/_s ~ /tutŋan/_T, SYK, LAG /tuŋan/_Ø *dusŋan* ‘bad, inauspicious times’
- SYK, LAG /tuzaŋ/_Ø, GYS /tiʒaŋ/_s ~ /tudzaŋ/_T, SHA /tiʒaŋ/_s *dusbaŋ* ‘good, auspicious times, festival, holiday’
- GYS /tiʃhot/_s ~ /tu(t)ʃhot/_{ʔT}, SHA /tiʃhot/_s, SYK, LAG /tutsot/_{ʔØ} *dustshod* ‘hour, time of the day’
- GYS /tiʒi/_s ~ /tudʒi/_T, SHA /tiʒi/_s *dusbži* ‘four seasons’
- SYK, LAG, GYS /tɨrap/_Ø, SHA /tiʀab/_s < *dusrabs* ‘era’
- GYS /tu(s)sum/_{ʔØ}, SHA /tiʒum/_s < *dussum* ‘the three ‘times’: past, present, and future’

The various sound changes concerning final *-s* seem to have overlapped and it is difficult to establish a relative chronology. Substitution of final *-s* by a dental stop would typically have happened before the final led to vocalisation and fricativisation, cf. SHA /gjatpa/ < */gjaspa/, SHA /metpo/ < /mespo/, GYS, SHA /hotpa/ < /fospa/. Dropping of final *-s* without vocalisation must have happened after final *-s* led to the fricativisation of an unvoiced initial of a following syllable (so far only observed with the nominaliser *pa*), cf. GYS /gjufa/ < */gjuʃfa/ and GYS /rufa/ < */ruʃfa/ besides /rifa/ < */riʃfa/ < */ruʃfa/ < *ruspa*. This would indicate that fricativisation preceded vocalisation. But on the other hand, SHA /gjitpa/ < */gjɨʃpa/ < */gjuʃpa/ demonstrates that the substitution of the sibilant by the dental stop could take place, at

least in single cases, after its vocalisation and before fricativisation, and that vocalisation could thus precede fricativisation.

It would be surprising if final *-s* were dropped without leaving a trace in the preceding back vowels against the general development in the Kenhat and Central Tibetan varieties. Furthermore, dropping of the (intermediate) dental stop seems to be quite a recent development, cf. the following pairs: GYS (middle generation, i.e. parents) /dratsil/_T ~ (consultant) /drasil/_Ø, LAG (old people) /meṭpo/_T ~ (consultant) /meṭpo/_{ʔØ}, LAG /jargjat/_T ~ (less frequently) /jargja/_Ø, GYS (father, as recorded) /logjut/_T ~ (consultant) /logju/_Ø,⁶⁶ and more generally the preference for such forms by the Laga and Shayok consultants who are 10 years younger than the Gya consultant.

The substitution by a dental stop seem thus to have been an option to avoid the already emerging sound changes triggered by the final *-s*. Second, dropping without vocalisation seems to be a further development of the substitution with dental stop, thus /-s/ > /-t/ > /-Ø/, cf. GYS /sildro/ < *bsildrod* ‘temperate weather’ for the occasional deletion of an apparently original final *-d* (but see also further below). The resulting inconsistency (fricativisation of a following nominaliser) seems to be less serious and could possibly be explained as an analogous formation, particularly if the ‘regular’ forms remained available in the speech community, as in the case GYS /rifa/ ~ /rufa/ < *ruspa*.

Although the substitution of final *-s* by a dental stop seems to be older than the ‘regular’ Upper Ladakhi sound changes and should have stopped being productive some time ago, it has been applied also to modern loans, such as GYS (middle generation) /ʃapot/, SHA /çapot/, SYK, LAG /ʃapo/, all-Ladakhi /ʃapos/ ‘thick blanket’ (source unknown); GYS /get/ for /ges/ ‘gas’; SHA /ɕʒat/, SYK, LAG /ɕʒas/ (<Urdu *jahaaz*) ‘(air)plane’; GYS, SHA, SYK (grandparents), LAG (older people) /bat/ for /bas/ ‘bus’ (from English), cf. GYS, SHA /ŋ̄a baren̄a ŋ̄a fið̄fin/ *ŋ̄a bus-sinaŋ̄la hoŋ̄spin* ‘I came by/in the bus’ (/bare/ < /bat/ + genitive) or also GYS /pat cha/ < *pass* and GYS (middle generation) /phat kalat/ for otherwise /phas kalat/ < *first class*.

Given the fact that only a smaller proportion of the vocabulary underwent this substitution and that most of the items concerned are of a more formal, particularly religious character, it is possible that the

⁶⁶ /drasil/ may perhaps be analysed as /dras-sil/ and thus as a loan from Leh. As the upper Shayok dialects do not exhibit fricativisation, /meṭpo/ could correspond to a ‘regular’ sound change. No such objection is possible in the other cases.

sound change originally applied only to high register items to avoid the ‘regular’, but somewhat ‘vulgar’ change.⁶⁷ The same strategy probably lay behind the adaptation of the place name Saspol. The substitution might thus have been, from the very beginning, an option to avoid vocalisation effects, and hence it could remain productive with respect to loan words, particularly because the analogue formation helps to adjust a final that does not fit into the phonetic system without changing the sound of the word too dramatically. But this fact also might indicate that the ‘regular’ sound change, which would lead to the pronunciation */be/ for ‘bus’, is still productive, and thus not of great antiquity.

However, the fact that the substitution with a dental stop happened mostly with nominals but typically not with verbs (even though this necessitated a substantial reorganisation process), could perhaps point towards an ancient nominal derivation morpheme *-d/-n*, preserved, but no longer productive in Old and Classical Tibetan, cf. √rga: *rga* : *rgas* ‘be, become old’, *rga-d-po* ‘old man’, *rga-d-mo* ‘old woman’, *rga-n-(pa)* ‘old’; √che: *che* : *ches* ‘be, become big, great’, *che-n-po* (OT also *che-d-po*) ‘big’; √lta: *lta* : *bltas* : *blta* : *ltos* ‘look at’, *lta-d-mo* ‘sight, spectacle, etc.’; √dro: *dro* : *dros* ‘be, get warm’, *dro-d* ‘warmth, heat’ (cf. the above-mentioned *bsildrod*), *dro-n-mo* ‘warm’ (see also Simon 1977).⁶⁸ In some of these cases, we also find nouns derived with *-s*, such as *rga-s-ka* ‘old age’, *lta-s* ‘omen’, *dro-s-(chen)* ‘noon, midday’, and *dro-s-chuñ* ‘forenoon (?)’. The nominal suffixes *-d/-n* and *-s* typically formed abstract collective nouns (see Denwood 1986 and Uebach & Zeisler 2008 for the suffix *-s*, Zeisler forthcoming, chapter 4 § 2.4.3, notes on *smin-(drug)*, *spun*, *(ma)smad*, *(pha)spad*, and *spud* for the suffix *-d/-n*). Individual nouns and adjectives are derived by adding a definiteness marker *-po* or *-mo*. While the alternation between *-d* and *-n* reflects a shift from nasal to oral stops (and back) that affected various Tibeto-Burman and even Indo-European languages, it remains unclear whether the two suffixes *-d/-n* and *-s* are similarly related or evolved independently. An occasional interchange

⁶⁷ While I would not like to go so far as to claim that all these items were merely borrowed from the religious language, their prestigious nature might have prevented an ‘ordinary’ pronunciation.

⁶⁸ In Kenhat, the dental nasal and the lateral are infrequently also involved in the substitution process, cf. GYS /k_unbo/ₙ, SHA /k_unpo/ < *guspo* ‘expensive’ (see JĀK *gunpo* Lahul ‘expensive, dear’), the above mentioned /g_uñpa/ from Changthang, as well as SHA /ʃralma/ for all-Ladakhi /ʃranma/ ‘pea’ < *sradma* ~ *sranma* ‘pea, bean, lentil’, possibly related to *sra* : **sras* ‘be, become hard, solid, compact’.

between the two suffixes can be observed quite early: the Old Tibetan word *mye-s-po* ‘one of the group of the forefathers’ (Classical Tibetan *mespo*, cf. also Ladakhi /meme/ ‘grandfather, venerable person’) appears in one of the 10th century fragments of the Rāmāyaṇa in the form *myedpo* (A3), while the parallel version has *myespo* (E53, de Jong 1989: 94f.). Another instance, concerning the same word, is found in a late 11th or early 12th century colophon by *lotsāba* Bloldan Šesrab (1059-1109), in which he mentions the temple of Tholing as the ‘commitment of the ancestors, uncle and nephew’ *yabmed khudbongyi thugsdam* (*Bstanḥgyur*, vol. 123, no. 5719, p. 259; cf. Samten G. Kar-may 1998: 23), the expected form being *yabmes*.

There might also have been other factors involved, as perhaps in the case of the substitution of the past tense and imperative morpheme *-s* by a dental fricative (perhaps originally a stop) in the Zanskar dialects (cf. pp. 259 and 261 above). In any case, the substitution cannot be over-emphasised, since Jacques (2006: §2), observing the replacement of final *-s* by final *-t* in Rgyalrong nouns and in the aorist form, notes:

Il n'existe pas à notre connaissance de dialecte tibétain ayant confondu *-s* et *-t* en *-t*, et il doit donc s'agir d'une innovation au sein des parlers rgyalrongs.

7. PRONOUNS: DEFINITENESS MARKER {-DE}, REMOTE DEIXIS, AND FIRST PERSON INCLUSIVE PLURAL /ḤOFO/ ~ /ḤOFA/ ~ /AHO/

Not quite unexpectedly, the two dialect groups differ also in their lexicon. However, given the scarcity of lexical resources, it is difficult to ascertain how far the differences go. At least with respect to the verbs, where I have sampled detailed lists for two reference dialects, Domkhar (Shamskat) and Gya-Sasoma (Kenhat), the following picture emerges: disregarding minor and not-so-minor differences in meaning the two representative dialects share about 85% of the vocabulary, that is, about 15% of the verbs of one dialect are not found in a corresponding dialectal form in the other dialect. Taking into account the observed differences in meaning, the percentage of verbs and readings not found in the respective other dialect is about 25%.⁶⁹ This figure does

⁶⁹ Actually there is a higher percentage of particular meanings from Gya-Sasoma not found in the Domkhar dialect (29%), than the other way round (21%), which is

not include the considerable differences in the argument structure of corresponding verbs,⁷⁰ for which we do not have any statistics.

Differences in the nominal vocabulary can be best demonstrated with various pronouns, including definiteness markers.

Definiteness (or givenness) of a noun is indicated by the marker {-po} (allomorphs: /-po/, /-bo/, /-wo/, /-o/)⁷¹ in the Shamskat dialects and Leh, as well as in Central Zanskar, but by the marker {-de} (allomorphs: /-te/, /-de/, /-re/) in the other Kenhat dialects (see Table 2, column 7). The latter marker is certainly related to the Old and Classical Tibetan demonstrative pronoun *de* 'that'. In Old and Classical Tibetan, demonstrative pronouns, which simultaneously serve as definiteness markers, take the final slot of an (extended) noun phrase (if there is one). In all Ladakhi dialects, the two functions of the Old Tibetan demonstrative pronouns: anaphoric or referential, on the one hand, marking definiteness or givenness, on the other, are split and the referential demonstrative pronouns typically take the initial slot of a noun phrase,⁷² leaving the original slot to the definiteness markers, which are typically no longer referential.

In the LLV (a Lower Ladakhi version of the Kesar epic, written down at the beginning of the 20th century), the remote deixis *de* is also found in the final slot. In this case, it is not always referential and functions more like a definite article. I have also observed the definiteness marker /de/ very infrequently in the speech of an elderly person of Khalatse. In both cases, the use of /de/ instead of {po} might be due to interferences with the classical language, but it might possibly also indicate that an original marker /de/ has been replaced by the innovative marker {po}.

due to the fact that we have significantly more readings positively attested for Gya-Sasoma than for Domkhar, while we still lack the corresponding confirmation or rejection from the Domkhar dialect.

⁷⁰ To give only one example: in neutral situations verbs of consumption generally do not take an ergative marker for the agent in the Kenhat dialects, but they must take an ergative marker in the Shamskat dialects.

⁷¹ This marker might be related to the Old Tibetan pronoun *hu/ho* discussed below (p. 278) as well as to the Old Tibetan sentence-final definiteness marker *-Xo* (i.e. assimilating with a preceding consonant), which showed some nominal properties, such as plural marking, see also note 75 below.

⁷² Most probably, the pronouns were prefixed to their head with the help of a genitive, as is still visible in the Gya remote deixis /phai/. Stereotypical phrases with a prefixed genitive pronoun, such as *dehi tshé*, *dehi dus* 'that time', often also contracted to compounds *detshe*, *dedus*, are very frequent in Classical Tibetan.

A trait specific to the Kenhat dialects is that the definiteness marker {-de} shows assimilation features, indicating that the originally independent marker has become part of the intonational unit 'word'.

Both definiteness markers are often combined with a demonstrative pronoun or follow an otherwise sufficiently definite noun, e.g. family terms, cf. for the Kenhat marker: CEM /i kitapte/ *h̄di kitab-de* 'this book', /i lamde/ *h̄di lam-de* 'this way/ road', /i igere/ *h̄di yige-de* 'this letter', /ire/ *h̄di-de* 'this', /are/ *h̄a-de* 'that', /inare/ *h̄dina-de* 'this one/ only this/exactly this', /anare/ *h̄ana-de* 'that one/ only that/exactly that',⁷³ /abarese/ *aba-de-si* 'of/by father'; LLV: *de srinpo-de* 'that monster' (p. 6, l. 8), *de mgodgu-de* 'that nine-headed one' (the monster; p. 6, l. 9), and *khoḥi no-de* 'his younger brother' (p. 15, l. 17).⁷⁴

In place of the remote deixis /a/ 'that over there', common in Shamskat and Leh, speakers of the Gya dialect typically use the adjectival root /pha/ 'across, beyond', which is placed in front of the headword with the help of the genitive marker, cf. /phai trūgu/ 'that child over there'. A similar substitution for the remote deixis /te/ 'that' is found in Spiti and Nyamkat with /phi/ 'that' (Sharma 1992: 46f., 49, 141, 143), but not in Tot, where again /te/ is used (Sharma 1989: 296f.).

Perhaps the most prominent difference between the two dialect groups with respect to pronouns is the expression for the first person inclusive plural. While the Shamskat and Leh form /ḡataŋ/ and Balti /ḡaraŋ/ *ḡataŋ* are derived from the first person singular pronoun /ḡa/ *ḡa*, many Kenhat dialects make use of a quite different pronoun: GYS /ḡoḡo/ ~ /ḡoḡo/, SHA /ḡoḡa/, NYO /ḡo/, CEM and Zanskari /aho/. This word apparently derives from an old pronoun *ḡu* ~ *ḡo* (or directly from *ḡoskol* 'we', JĀK sub *ḡoskol*; this etymology is also current among learned Zanskaris, but not fully motivated by the sound laws, which would yield Zanskari */ohol/).

⁷³ Cf. Zeisler (2006: 79f., examples 13 to 17) for the emphatic or contrastive use of directional markers with pronouns.

⁷⁴ Quite similarly, /de/ is used as a definiteness marker in Kyirong (Huber 2005: 58, 71f.). In this context, I should like to mention Isao Honda's paper on 'Grammaticalization of demonstratives and double determination in Tibeto-Burman languages' given at the 36th International Conference on Sino-Tibetan Languages and Linguistics, Melbourne 28-30 November, 2003. He shows that the grammaticalisation of demonstratives as definite markers as well as the combination with new pronouns as polymorphemic pronouns is a common feature in Tibeto-Burman. Cf. also Honda (2007) more specifically referring to Tamangic languages, but with an example from Kyirong of using the definitive marker *de* with pronouns (no. 11, p. 106).

In Old Tibetan texts one can find the plural determiner *ho*chog, which can be used on verbs,⁷⁵ and the (exclusive?) plural forms *hucag* ~ *hocag*, with the diminutive (?)⁷⁶ also *hubu(cag)*, ‘we’. The BRGY further mentions a dialectal diminutive (?)⁷⁶ form *hugu* ‘I’. The sequential discourse markers *hu*nas ‘and then’ and *hu*ngi-rjesu ‘after that’ seem likewise related. Since the form *hu*nas alternates with the sequential discourse marker *denas* derived from the remote deixis *de* ‘that’ (the only form in later texts), an interpretation of this as both a dialectal or regional variant of the remote deixis and as a complementary proximate or medial deictic function seem motivated. However, according to BRGY, *hu* ~ *ho* is an Old Tibetan form corresponding to the proximate deixis *hdi* ‘this’. Similarly, in one of the transcriptions from the Gya dialect we find the spontaneous form /fiuri/ in place of /ire/ ‘this one’. The consultant herself, who in this case was also the narrator, was somewhat astonished about her own usage and went on to explain that in the speech of old people one could still hear /fiu toŋ/ ‘give this’ instead of /i toŋ/, but that nowadays it is mostly replaced by the latter form.

This rather inconsistent data allows two interpretations: either the two forms *ho* and *hu* originally represented two different pronouns, the first distal, the second proximate,⁷⁷ or that the original *ho/hu* was completely unspecific with respect to distance or nearness. In the latter case, its original function may have been a quite different one and/ or it may have been borrowed with functional shift from an unrelated language.

The Kyirong demonstrative pronoun /o:di/ ‘that’ (Huber 2005: 71, 73 with n. 79) corresponds very closely to the pronoun /ote/ *ode* which Koshal (1979: 122f.) describes for the Leh dialect as “non-proximate”,

⁷⁵ Cf. *Gzermyig* (fol. 78a.4, Francke 1928: 498) *dponlha*his *gsu*nsna *ci* *gsu*ñ *ma*ñan-no-cog ‘When the god-like teacher spoke, we (incl.) have not listened to whatever he said’. This usage shows clearly that the sentence final marker *ho* is itself actually a definiteness marker. The pronominal character of the element *ho* is evident from the use of the plural marker with noun phrases: the element *ho* takes the exact place of the pronoun or definiteness marker *de*, cf. the Old Tibetan Chronicle (l. 290, Imaeda & al. 2007: 212) *g*ñanmyi *ho*chog ‘all the other people’.

⁷⁶ The use of a diminutive for the first person is certainly well-motivated. The diminutive itself shows two variants *-hu* (assimilating with the preceding consonant) and *-bu* [vu], rarely also a non-assimilated *-gu* (cf. Uray 1952). This alternation could result from an original **hvu*.

⁷⁷ In this case, it might be possible that the classical pronoun *hdi* ‘this’ results from a contraction of *hude*; for a corresponding sound change affecting the final vowel, cf. the Kyirong form /o:di/ < *ho* + *de*.

referring to items “not close either to the speaker or addressee, but within sight”. According to Rebecca Norman (p.c.) this pronoun functions as a medial deixis, when pointing to an item near to the addressee and typically located between speaker and addressee. In Domkhar, /ote/ refers to things that are (a) visible (in contrast to /te/) and (b) near to the addressee but somewhat further away from the speaker (thus not in between). Quite in contrast, the element *o* merely has an emphatic function in Gya and can be added to any of the pronouns thus /i/, /oi/ ‘(exactly) this’, /te/, /ote/ ‘(exactly) that’, /phai/, /o phai/ ‘(exactly) over there’, /phai-phai/, and /o phai-phai/ ‘(exactly) far over there’.

As a first person plural inclusive pronoun, /ho/ is also found in neighbouring varieties, e.g. Spiti /hozakgja/ (“hozakgya”) ‘we’ (Sharma 1992: 47), possibly also /wogja/ ‘you (pl.)’ (Sharma 1992: 21)⁷⁸, Tabo Spiti /ho/ ~ /wo/ ‘you (to elders)’, /woāja/ ‘we (incl.)’, /wojak/ ~ /woākun/ ‘we (incl. fam.)’ (Veronika Hein, p.c.), and Nyamkat /hojak/ (“hošak”) ‘we (incl.)’, but also /ho/, /hojak/ ‘you sg./pl. (extra-honorific)’ (Sharma 1992: 138), cf. also Dingri /oraŋ/, Drokpa /oraŋ/ ~ /hōraŋ/ and /ho/, Mustang /araŋ/ ~ /oraŋ/ ‘we (incl.)’ (Herrmann 1989: 45 for Dingri, Kretschmar 1986: 42 for Drokpa, 1995: 523 for Mustang). Cf. also Kyirong /hu/ ~ /orā:/ (Huber 2005: 68).

The phenomenon seems to be even more widespread and might be also found in the East: Themchen (Amdo) shows a first person inclusive plural pronoun based on the element /ə/ *hu* plus plural marker /tʰu/ **chabo*: /ətʰu/ *huchabo* ‘we incl.’ vs. /ŋətʰu/ *ŋedchabo* ‘we excl.’ (Haller 2004: 50).

The use of /ho/ for both first and second person in Spiti and Nyamkat indicates that neither use is original, but rather derived from a third person or demonstrative pronoun. The use of a third person pronoun for the first person is not uncommon in Tibetan (cf. also CT *khobo* and *khomo* ‘I’ < *kho* ‘s/he’ plus gender-specific nominaliser). As the speaker distances him- or herself and becomes less prominent, one can interpret the use of a third person pronoun as an expression of humility. It is, however, not immediately clear why this kind of humility should be found in the inclusive and not in the exclusive plural and why not also in the first person singular pronoun.

⁷⁸ This latter form does not appear in the section on pronouns. The labial glide instead of the laryngal or a plain vowel is probably triggered by the rounded vowel. A similar feature can be observed in other Tibetan dialects where one finds /woma/ for *homa* ‘milk’.

The opposite use of a third person pronoun for an addressee of higher status as, e.g., in German, can be interpreted as a strategy of avoiding direct addressing, which would be considered impolite, and it also serves to create a distance in favour of the addressee, making him or her less involved in the situation and thus less responsible. This strategy might also underlie the use of the inclusive pronoun, which implies some sort of address and could therefore be interpreted as *you and me*. This analysis would at least account for the compound *horan*: *ho* ‘that’ (you) and *ran* ‘self’ (me).

8. BIMORPHEMIC CASE MARKING AND CASE NEUTRALISATION

The Kenhat dialects show two features that at the first sight appear to be contradictory. On the one hand, some of them show the substitution of a case morpheme or even the combination of two case morphemes in place of a simple case morpheme (genitive /-i/ ~ /-e/ vs. /-se/ (< **-isu*), locative-ablative /-ne/ ~ /-nesu/). On the other hand, all of them have apparently neutralised the two distinctions, that between ablative and locative case marking (both found as /-ne/ or /-nesu/ although the latter form appears to be preferentially used for the ablative function),⁷⁹ and that between agent and possessor marking (instrumental vs. genitive, both /-i/ ~ /-e/ and, in some Upper Indus dialects, alternatively /-se/;⁸⁰ cf. also Table 2, columns 8 and 9).

⁷⁹ A similar neutralisation can also be observed in the Shamskat dialects where the ablative or the ablative postpositions may be used with a non-dynamic locative meaning in specific contexts, cf. ARA /lame-ka ~ lam-e-kana khi duk/ *lam-mi-ka-(na) kyi hdug* ‘on the road (PPosLoc ~ PPosAbl) are dogs’. DOM /ama gare?—ama nan-na jot./ *ama gare | ama nan-na yod* ‘Where is mother?—Mother is in the house (Abl)’. In such cases, the ablative and ablative postposition narrow the focus onto a more specific location. More particularly, they are used to emphasize an obvious location, implying the rhetorical question ‘don’t you know?’ or ‘can’t/didn’t you see?’. The emphasis is strongest when the LCT argument is in the focus position. Cf. also the non-elicited KHAL /sjonme Pod-na tsamtsek fhos jot, .../ *sjonmahi Bod-na tsamtsažig chos yod* ‘As many religious works as there had been in Tibet of olden days (Abl), ...’. The Shamskat ablative marker /-na/ is, of course, formally identical with the OT/CT locative marker *na*. The unmarked rendering for ‘in the house’ is /nan-a/ *nan-la* or, with a locative postposition, /nan-i-aŋ/ *nan-ŋi-nan*.

⁸⁰ Cf. GYA /tä-se ŋāma/ *rta-si rjama* (Leh /rte rjama/ *rta-ŋi rnama*) ‘tail of the horse’. The substituted genitive marker /-se/ is also used with postpositions or may even be the only possible form for postpositions as in Shara, cf. GYA /ta-se-ka/ or SHA, GYS /ta-se-ha/ *rta-si-ka*, SHA */te-ha/ (Leh /ste-ka/ *rta-ŋi-ka*) ‘on the horse’.

The latter statement, however, should be understood in comparison with the situation found in Old and Classical Tibetan, which cannot be taken *a priori* as the original case system. On the contrary, the Old Tibetan instrumental and ablative markers are obvious bimorphemes, the second element generally surviving as *-s* in Old Tibetan, thus instrumental-agentive {*kyis*} = genitive {*kyi*} + *-s*; ablative *nas* = locative *na* + *-s*, ablative *las* = dative-allative *la* + *-s* (cf. LSI p. 27, Simon 1940: 385-386, DeLancey 1982: 27, 1984: 61f., Tournadre 1995: 267f. with note 14). It seems that the functional dissimilation occurred not too long before the stage of Old Tibetan. In Classical Tibetan one can still observe the frozen usage of the dative-allative marker *la* with ablative function (only for particular verbs, cf. JÄK sub *la* IV) and with partitive function (Zeisler, 2006: 70, 75, 77f., examples 7-12).

The possessor-agent distinction apparently did not affect all varieties—or started breaking down rather quickly.⁸¹ One can observe the seemingly irregular use of genitive case marking of agents in some Old Tibetan documents as much as in early classical texts (this is often corrected in later editions, occasionally also in cases where a genitive marker would have been correct).

While DeLancey (1984: 62, 69) suggests that the additional morpheme of the ablative marker is derived from an unbound motion verb **sa* ‘go, leave’, DeLancey (1982: 27) and Tournadre (1995: 267f.) suggest that the additional *-s* morpheme shared by the ablative and the instrumental represents, as DeLancey puts it, an “abstract superordinate Source category”. This argument is put forward by DeLancey and Tournadre in favour of a conceptual relation between ablative and ergative marking in Tibetan.

The lack of distinction between agent and possessor at the level of morphology seems to be conceptually deeply rooted. Working with my consultants, it is often extremely difficult to decide for or against an agentive interpretation of the first argument in sentences with unclear agentive or valency status, because a possessive interpretation (reducing two arguments to one) is always acceptable and apparently blocks any other interpretation.

⁸¹ Although this phenomenon has never been studied in detail, and thus no statistics exist, I got the impression that the two markers are more often confounded when they appear in their syllabic form {*kyi*}, {*kyis*} after a closed syllable than when they appear after open syllable as *-i* and *-s* respectively. The regular spelling *-s* instead of a linguistically expectable *-is*, may indicate some more prominent differences in pronunciation. These might have resisted the phonetical assimilation operating on the syllabic marker for some time. In that case, the observable confusion in classical texts would clearly be a secondary phenomenon.

Complex case morphemes combining the ablative marker *nas*, or more probably the locative marker *na* with a morpheme *su*, are found in Classical Tibetan *nassu* (e.g. in the *Btsunmo Bkañi-thanyig*, Laufer 1911)⁸² as well as in Kenhat (locative-ablative /-ne/ ~ /-nesu/) and some of the Western Tibetan varieties (Spiti: locative-ablative /-na/ ablative /-nasu/, Nyamkat ablative—in the Poo dialect, however, instrumental—/naso/, cf. Sharma 1992: 37-40, 131-133).

The complex form or at least its second syllabic element is also attested with the ergative marker in Balti /-(i)si/ and northern Nubra /-ze/ (cf. ARA /khöi/ *khoñi* ‘his/her’ vs. /khoze/ *khosi* ‘by him/her’), Tot /-i/ ~ /-ise/, Nyamkat /-so/ (Sharma 1989: 286, 288f., 1992:131) or /-su/ (LSI p. 27), Tabo Spiti /-su/ (see below), and, as already mentioned, in the genitive marker of the Upper Indus dialects (Cemre, Shara, Gya) /-i/ ~ /-se/. It was apparently also borrowed into several Shina dialects for the imperfective tenses (cf. Bailey 1924: 11 for Gilgit, Sharma 1998: 60 for Brokskat, Schmidt & Kohistani 2008: 51-53 for Indus Kohistani).⁸³ If the complex form is a secondary derivation of the genitive marker, as Bielmeier (1985: 90) suggests, it could well have developed out of a morpheme *-*su* (or *-*so*) in an unstressed position. One may add the observation that the Balti morpheme /-si/ may be dropped, leaving behind the mere genitive marker /-i/ for the agent (Bielmeier 1985: 90).

As Veronika Hein kindly pointed out to me, the Tabo Spiti form of the ergative marker might be either the element /-su/ (optionally plus an element /-lu/ or /-kun/) or the postposition (?) /-ilo/ (or a genitive form plus /-lo/).⁸⁴ The ablative marker, also used for instruments, takes the form of the locative marker /-na/ plus genitive /-i/ ~ /-ki/ plus the optional elements /-su/ (+ /-lu/ or /-kun/) or /-lo/, thus /-nai/ (or /-ne/) ~ /-naki/, besides /-naisu/ ~ /-nakisu/ (/naisulu/ ~ /nakisulu/ or /naisukun/ ~ /nakisukun/) and /-nailo/ ~ /-nakilo/. The short form

⁸² In this text, one can also find the combination of the nominaliser *pa* + instrumental marker *-s* + *su*. Although the massive use of the bimorphemic markers is triggered by the metric structure of the text, it must have been licensed by the grammar of the author’s (compiler’s) dialect.

⁸³ This form is not found in the most archaic forms of Shina, e.g. in the Palula dialect (Schmidt & Kohistani 2008: 51). The Palula dialect separated from the modern Shina varieties in the early or middle 17th century (Ruth Leila Schmidt, e-mail communications IV/08).

⁸⁴ According to Veronika Hein, the function of /-lo/ ~ /-lu/ and /-kun/ is quite opaque. These elements may merely add more emphasis to the preceding morpheme.

/-nai/ (or /-ne/) ~ /-naki/ as well as the other Western Tibetan /-na/ ~ /-nasu/ variants, help to explain the form of the Kenhat locative-ablative marker /-ne/ as being a contraction from the full form /-nesu/ < **naḥisu* (locative plus postposition) and as not being derived from the Old or Classical Tibetan marker *nas*.

The interesting pattern in Tabo shows that the derivational element for the Old Tibetan instrumental and ablative markers could have been a postposition, and thus originally a noun.⁸⁵ In the case of the ablative, the element /su/ and a preceding genitive marker /i/ or /ki/ would have been applied, just like a postposition, to a preceding noun, which, however, was modified by a locative marker. In the case of the instrumental and ergative, either the plain ‘noun’ (as in Tabo) or the postposition (genitive marker plus ‘noun’, as in Balti) would have been directly applied to the unmodified noun.

The morpheme *-su/*-so was also applied to location adverbs, such as *ma* ‘below’ and *ya* ‘above’, to derive directional adverbs: *ma-s* ‘from below’ (i.e., upwards) and *ya-s* ‘from above’ (downwards). A syllabic form *ya-(s)se*⁸⁶ is attested in two Old Tibetan documents: *rje Guge Rkaṅphrangyi gñebo myi brgya rkya brgyažig yasse byuṅna* (Pt 1136, l. 47) ‘when the go-between of the lord Guge Rkaṅphran [together with] hundred men (and) hundred wild asses⁸⁷ appeared from above’; *ḥ[o]-našig rešigna bya thaṅkar thaṅnaṅ [=thaṅnag?] gñišsig yase [byuṅ?]* (ITJ 0731, l. 69) ‘Then, once, two birds, a white eagle and a ?black eagle appeared from above’. In both cases, the context leaves no doubt that the go-between and the birds come down, namely from the uplands of Guge and from the sky. Without the evidence from the dialects, these forms could not be analysed. Thomas (1957: 31) leaves *yase* untranslated, while Uray (1972: 9) describes *yasse* as “an adverb of unknown meaning”.

It should be noted that the relational markers OT/CT *las* and *bas* used in expressions for non-equative comparisons are likewise bimor-

⁸⁵ For Roland Bielmeier (p.c.), however, this does not necessarily follow. He thinks that the morpheme *-su/*so could have been a case marker, joined to a case marker that had lost its original function. This would mean that the genitive marker originally had an ablative or at least locational function. Possessors (and agents) would thus have been treated as source of origin.

⁸⁶ The geminated spelling (*yas.se*) might reflect an unclear syllable boundary and might thus indicate that the vowel was already about to be lost.

⁸⁷ *rkya*. Perhaps merely an error for *rkyan*, the Tibetan wild ass (*equus kiang*), but the final *-ŋ* could be a derivational suffix. Possibly an old generic term for equids.

phemes with a second element *-s*. The Ladakhi dialects as well as several Western Tibetan dialects show the use of the morpheme *saŋ* (cf. Hu Tan 1989: 403f. for the dialects of “Ari”, i.e. *Myahris*), which could at least be formally analysed as the above element **su/*so* plus conjunction *aŋ*. What is interesting is that, even if this morpheme is ultimately unrelated, it behaves like a postposition in the Kenhat dialects (including Leh), thus /X-e-saŋ/ ‘in relation to X’, but combines with the morpheme *ba* in the Sham dialects: /X-ba-saŋ/.

It is not at all clear to me whether the derivation of the complex ablative and instrumental-agentive markers was completely parallel. If so, then the genitive must have been in use for marking the agent as an (animate) possessor of the action. The derivational element **-su* would then have been introduced to dissimilate the function of possessor and agent. It is interesting in this connection to note that the notions of (inanimate) instrument and (animate) agent are conceptually independent in all Ladakhi dialects: the instrument is in general not expressed by either the genitive marker /-i/ or the ergative marker /-(i)s/, /-(i)si/, /-ze/, but by the comitative marker /-daŋ/, /-naŋ/, /-na(ŋ), or /-nã/. This feature is also found in Tot: comitative /-daŋ/ (Sharma 1989: 289) and in Nyamkat: comitative /-raŋ/ or ablative /-naso/ (Sharma 1992: 133), while in Spiti only the ablative marker is used (Sharma 1992: 38 and Veronika Hein, p.c.).

However, if the possessor-agent distinction found in Old Tibetan and some of the north-western Ladakhi dialects is an innovation not shared by the Kenhat dialects, why do we find the suppletive form /-se/ for the genitive in these dialects at all? The contemporary lack of distinction in these dialects would thus appear to be a secondary neutralisation.

On the other hand, the suppletive form of the genitive is not permitted with personal pronouns in Cemre and Gya, whereas the complex ablative form is quite common with demonstrative pronouns (/tenesu/ ‘thereafter, and then’ for *denas*). This might point to the fact that the use of the suppletive genitive form was an innovation, on analogy perhaps to the use of the complex ablative.

Furthermore, the Old or Classical Tibetan instrumental marker {*kyis*} (homophonous with the ergative in Shamskat and with the genitive in Kenhat) can be found in Ladakhi with non-agentive verbs to express a (mostly physical) cause of an event.⁸⁸ In similar contexts, Tabo Spiti

⁸⁸ There is a strong tendency to replace it by other constructions, cf.:

shows the rare use of the ergative marker /-su/. Similarly, and corresponding to Classical Tibetan, the medium-argument of the agentive and non-agentive verbs of filling takes a genitive marker in Kenhat, but also in Shamskat (Zeisler 2007: 407). At first sight, the genitive or the instrumental marker for cause and medium arguments appears to be a remnant of Old Tibetan instrument and agent marking. The neutralisation of agent/ cause and possessor marking would then be an innovation. One could accordingly argue that the introduction of the comitative *day* as a marker for the (inanimate) instrument was caused by the neutralisation.

But in this case, one can but wonder why it should have been more important for the rather peripheral instrument argument than for the agent to find a new marker. Yet again, why should there be a separate marker for the instrument in those varieties where the possessor-agent neutralisation did not take place, as in Tot and Nyamkat or in the Shamskat dialects? Likewise, if the neutralisation of the possessor-agent distinction in the Kenhat dialects was due to a process of simplification, why should the same trend not have led to a complete loss of the suppletive form as in the Leh dialect, but, quite the opposite, to an over-generalisation?

For the time being, I cannot offer more than a general suggestion: the possessor-agent distinction might have been superimposed on an early form of Old Tibetan, and the new morpheme *-su might then have spread and taken over ever more functions of the comitative marker *day*, until the latter was more or less completely replaced in Old Tibetan. Before the process was complete, the new possessor-agent distinction was also superimposed on the non-Tibetan substrate

-
- | | | |
|--------|---|----------------------|
| (i) a | <i>jura khimsa-s</i> | <i>gaksok</i> |
| SAS | canal sweeping-Instr | got.blocked |
| | ‘The canal apparently got blocked because of the sweepings.’ | |
| b | <i>jura khimsa-s-base</i> | <i>gaksok</i> |
| | canal sweeping-PPosInstr (or: sweeping-Erg done) | got.blocked |
| | id., lit. ‘The canal, the sweepings having done, apparently got blocked.’ | |
| (ii) a | <i>trūa ane Aṅme ~ Aṅmose</i> | <i>hunmedla thok</i> |
| GYS | child-Dat aunt Aṅmo-Gen(=Instr) | suddenly got.hit |
| | ‘The child got suddenly hit because of aunt Aṅmo.’ | |
| b | <i>trūa ane Aṅme-ḥere ~ Aṅmose-ḥere</i> | <i>hunmedla thok</i> |
| | child-Dat aunt A.-PPosInstr (or: A.-Gen/Erg done) | suddenly got.hit |
| | id., lit. ‘The child, aunt Aṅmo having done, got suddenly hit.’ | |

in the western areas. The Kenhat case system might have been reorganised at a later stage according to the old system of the Kenhat substrate, but with a semantic shift concerning the morphemes. In this scenario, the additional morpheme **-su* might have lost its grammatical function, but could have been retained as a more prestigious phonetic form.⁸⁹ Alternatively, one could suggest that the suppletive form, introduced to mark an agent, was over-generalised to such an extent that the possessor-agent distinction collapsed. That the Shamskat case system was not reorganised could be due as much to a different substrate as to a later contact with the Old Tibetan *lingua franca*.

The Shamskat medium construction is obviously borrowed from Kenhat. It is thus not necessarily a remnant of an earlier Old Tibetan instrumental construction, and the Kenhat construction itself could have as easily been borrowed from neighbouring varieties or the Old Tibetan superstrate. The same could be said about the cause construction. More probably, both constructions constitute a natural development from the available agent marking. For the cause argument in particular, there seems to be a closer conceptual connection with the agent argument than with the instrument argument.

As far as the medium argument is concerned, the Gya dialect shows an interesting distribution of genitive and comitative marking. With transitive-causative verbs, the genitive can only be used when the 'subject' slot is filled by a natural-force argument and not by a human-agent argument. In this case, the medium argument is apparently conceptualised as a coincidental cause. With a human agent, however, the medium argument is conceptualised as a mere instrument of the agent and thus takes the comitative marker.

At this point the Shamskat dialects again differ quite significantly. Although the genitive medium construction is borrowed from Kenhat, the comitative marker can only be used for rather unexpected medium arguments (cf. Zeisler 2007: 412), and the question of whether the sub-

⁸⁹ This has been nicely confirmed by the GYS consultant, who in 2008 stated that the bimorphemic form is more /*dea/ rdeba* 'nice' and thus more honorific. In the example sentence given by her just before this statement, the reincarnated priest or /rimboche/ received the bimorphemic form as possessor, while the ordinary priests as agents received only the monomorphemic form, to emphasise the contrast in status: /*naniŋ memelegun-e rimboŋhe-se kālowa san./ naniŋ memelegun-ni rinpoche-si bkaŋ-slobla gsan* 'Last year the monks/priests-Erg listened to the preaching of the chief priest-Gen'.

ject slot is filled with a human agent or a natural force does not play a role.

The neutralisation of the location-source distinction might be explained along the same lines as the neutralisation of the possessor-agent distinction, although it seems that the complex ablative marker developed independently and perhaps earlier than the suppletive agent marker, as the neutralisation of the locative and ablative markers can also be observed in the Shamskat dialects.

It is also interesting to note the complementary distribution of the *l-* and the *n-* forms in Ladakhi. While the *l-* ablative is completely lost (or was never developed), the *l-* allative is the most common directional marker. The ablative function can thus only be expressed by an *n-* form. As a result, the locative function is often lost or rather infrequent: in the western Sham dialects, */-na/* is used mostly for the ablative⁹⁰ (in contrast to northern Nubra, no form */-nas/* is available), while Leh has only */-ne/* (no form */-na/* or */-nas/* available), which again is used mostly for the ablative. On the other hand, */-ne/ nas* is generally used in the Upper Indus dialects and Gya to indicate both the location and the source, and to a certain extent this dual function is also found with the complex morpheme */-nesu/*. Cemre shows the use of */-na/* for an allative ‘into’, but since this is somewhat against the non-dynamic character of the original locative marker *na*, this might be a contraction of either the postposition */-naŋ(a)/ naŋ(la)* or of a dynamic locative-ablative marker **/nasu/*.

Another case of bimorphemic case marking, again in combination with a neutralisation of the location-source distinction, could be observed in Gya. The locative-purposive marker {*tu*} is rarely used in the Ladakhi varieties, where it is typically restricted to pronouns and place names. In Gya, however, it may appear more frequently after open syllables, where it takes the form */-ru/* or */-ro/*. Most often it is combined with the dative-allative marker */-a/ la*.

Despite the original locative values of both markers, the combination may have an ablative function in Gya. In fact, if the context allows an ablative interpretation, as in the case of movement and transfer verbs, this will be the preferred reading, thus */aŋose dʒola khambaru-a kher./ ajos(se) jola khanparula khers* ‘Elder brother took/ brought

⁹⁰ But see note 79, p. 281 above.

the bag(s) thither out of the house (preferred reading)/ to the house (reading depending on contextual support)'.⁹¹

The conceptual non-distinction between, or overlap of, locations and sources seems thus to be deeply rooted, and the same can be said about the non-distinction of agents and possessors. The additional morphemes apparently never had a greater conceptual impact and the motivation for adding them fell quickly in oblivion. The Kenhat consultants, at least, interpret the simple forms just as an 'abbreviation' of the complex forms.

Nevertheless, as it turned out during new fieldwork in 2010, in case of ambiguity between an agent and a possessor (or rather between a main possessor and a secondary possessor), a speaker may prefer to use the bi-morphemic case marker for the agent (or main possessor) and the mono-morphemic case marker for the (secondary) possessor. This will be indicated by indexing the case marker and underlining its function in the following examples. As one can see in example (2a), however, the bi-morphemic form may also be used for a secondary possessor, particularly when the mono-morphemic form of the genitive-ergative would be more or less homophonous with the absolutive as in the case of /aʃi/ [aʃi] 'elder sister' and /aʃi/ [aʃi] ~ [aʃi:] 'of/by elder sister'. In such cases, it seems that the first genitive-ergative marking is by preference interpreted as referring to the agent (main possessor). For more pragmatic usages, see also note 89, p. 287 above.

(1) a *Aṅme* *kelak* *khimtsea* *ʃol*.
 GYS <Aṅmo-Gen/Erg-1 dress> neighbour-DatLoc entrusted
Aṅmo's dress(es)

?<Aṅmo-Gen/Erg-1> <dress>

'Aṅmo's dresses were entrusted to the neighbours [by her].'

That is, *Aṅmo entrusted [her] dresses to the neighbours*.⁹¹

⁹¹ Mentioning both possessor and agent, if they are identical, as in situations of reflexivity, is generally avoided. When the action is typically performed upon one's own things, impersonal possessive constructions are preferred to a transitive rendering. While the Kenhat informants, as could be expected, have great difficulty in telling the two constructions apart, the same impersonal possessor construction appears also in the Shamskat varieties, where agent and possessor marking are morphologically distinct and where no misconception is possible. Again, when the action is typically performed upon one's own things, the possessor construction is preferred.

- use of the non-contracted combination of nominaliser /-ba/ *ba* plus auxiliary /-fiot/ *yod* (Shamskat /-et/ or {-bat} and Leh /-at/), at least in combinations with evidential markers, cf. e.g. GYS /saon tāb(b)afiot(t)ro/ *sabon btabbayodhgro* (LEH /tabet(t)ro/) ‘might sow’ or /saon tāb(b)afioakanak/ *btabbayodmkhan*hog* ‘must be/have been sowing’ (LEH /tabetkjak/)
- future tense {-kan} (kan, yan, han) < *mkhan*⁹² for speaker-prominent events (Shamskat and Leh /-in/),⁹³ also used in Cemre and formerly in Gya for (speaker-prominent) present tense (Shamskat /-et/ and Leh /-at/)
- generic and inferential marker {-kak}, negation {-kamanak} ?< *mkhan* + **hog* or *rag* (Leh /-anok/, Shamskat /-intsuk/ ~ /intsok/)⁹⁴
- distance marker {-kanak} (Leh /-k(j)ak/) < *mkhan* + **hog* (Shamskat /-(k(h)antsuk/ ~ /-(k(h)antsok/)
- regular use of inferential past marker {-tok} (tok, dok, rok), not common in Shamskat

The evidential morphemes /-kan/ and /-ak/ ~ /-kak/ are again found in the neighbouring varieties, cf. the speaker-prominent future /-(k)an/ (Pin Spiti), /-kən/ ~ /-ken/ (Tot), /-kajin/ > /-ken/ (Tabo Spiti) vs. non-speaker-prominent future /-(k)ak/ (Pin and Tabo Spiti) (Sharma 1989: 315f, 1992: 80-83, Veronika Hein, p.c.). The first morpheme is also found in Kyrong, where it is used in the form {-kē} for habitual events in general and in the form {-kē(jī:)} for future acts of the speaker (Huber 2005: 110, 124).

An inferential future marker /-kak/ is also found in Mustang, as well as a future morpheme /-ka/ + /-rak/ or /-nak/ ?< *mkhan* + *rag*, expressing certain or generic knowledge (Kretschmar 1995: 145, 149f). The Mustang inferential past marker {tuk} (tuk, ruk; Kretschmar 1995: 156) might likewise be related to the above-mentioned {tok}. This, in turn, might be related to the auxiliary *hdug*, which in many Tibetan varieties has an experiential (eye-witness) function, but is not attested as such in Mustang.

Although this does not seem to be immediately intuitive, the experiential function of the auxiliary *hdug* can be conceptually connected

⁹² Signalling certain knowledge (cf. also Zeisler 2004: 652, note 243).

⁹³ In Nyoma only with the auxiliary /-(j)in/ added to the future verbal noun.

⁹⁴ A seemingly related inferential (future) marker is /-(fi)ak/ **hog*; Leh /ok/, western Sham and Ciktan Purik /-uk/ ~ /-ok/ or /-pok/, but northern Nubra {-suk} ~ {-sok}. Perhaps the marker spread from the Kenhat to the Shamskat dialects. In the Nyoma dialect, however, the form {-kak} conveys the notion of definiteness and implies intimate knowledge or responsibility for acts of third persons, replacing in this function the morpheme /-in/.

with an inferential marker. In contrast to generally shared knowledge, knowledge based on a singular (visual) experience is less certain. Its content merely 'seems' to be the way it was perceived. The experiential auxiliary *hdug* could thus be interpreted as a reservation on the part of the speaker concerning the truth-value of the statement: 'apparently' or 'as far as I could observe'. This strategy of reservation would explain the possible mirative use of the auxiliary as described by DeLancey (1997).

10. CONCLUSION

As the Kenhat dialects differ in many ways and quite substantially from the Shamskat dialects, it is not appropriate to treat these differences as merely dialectal variations. The differences manifest themselves most obviously at the phonetic level (fricativisation and emerging tone vs. clusters) and at the grammatical level (genitive vs. ergative agent marking, verbal auxiliaries), but also at the semantic level (many Shamskat words are not used or have a different connotation in Kenhat and *vice versa*). Other differences are less obvious, but are nevertheless important, such as the traces of the past-tense and imperative -s suffix, and the differences in the argument frames of verbs (as in the case of the medium argument).

From an exclusively merely phonetic perspective, the differences between the various Ladakhi dialects appear to be gradual, and it may be justified to group the Leh dialect with the phonetically conservative Shamskat dialects. However, this approach does not account for the essential difference at the level of grammar, due to which the Leh dialect can only possibly be grouped with the phonetically innovative Kenhat dialects. The somewhat unexpected mixed character of the Leh dialect itself can be explained by historical facts (Leh as an important point of commercial exchange, repeated settlement of Balti speakers around Leh). Interestingly, it is the historically 'younger' dialects that have exerted the greater phonetic influence on the historically 'older' one (although one can observe some grammatical influences also in the opposite direction).

The above findings not only show that a classification of dialects cannot be achieved solely on the basis of surface phonetics, which may be more readily influenced by external factors than the grammatical layer, but also show that the terms 'conservative' vs. 'innovative' are

quite misleading when based exclusively on phonetics. After all, the Kenhat dialects seem to have retained more lexical and grammatical archaisms than the Shamskat dialects.

The two dialect groups reflect separate historical developments, and, in fact, different linguistic sub- and adstrates: While the whole of Ladakh and adjacent regions were originally populated by speakers of Eastern Iranian (Scythian), Lower Ladakh (as well as Baltistan) was also subject to several immigration waves of Indoaryan (Dardic) speakers and other groups from Central Asia. Upper Ladakh and the neighbouring regions to the east, by contrast, seem to have been populated additionally by speakers of a non-Tibetan Tibeto-Burman language, namely West Himalayan (Old Zhangzhung; for the complex historical background cf. Zeisler forthcoming). The original ethnic differences between these populations continue to be reflected to this day in mentality and culture.

While the gradual Tibetanisation (i.e. the shift to Tibetan as L1) might not have started in the north-western areas before the end of the 10th or the beginning of the 11th century, when the (possibly merely pretending) descendants of the Old Tibetan imperial dynasty established themselves as kings in Guge and Ladakh (incidentally, this is also the time of the second spread of Buddhism), the interesting development of case marking in the Western Tibetan varieties could be indicative of a very early assimilation process between early Old Tibetan and the languages spoken in Zhangzhung. It cannot be precluded, therefore, that the process of Tibetanisation already took place in (some parts of) this region during the imperial period. One could at least expect that the *lingua franca* of the empire would have been more dominant in this region.

APPENDIX: EXAMPLES OF INITIAL AND MEDIAL FRICATIVISATION

CEMRE

$r, s + k \rightarrow [h] \sim [\chi] \sim [\ç]$ (depending on vowel)

[hi], [çi] < *rkus* ‘steal’; [χe], [he] < *rkos* ‘dig’; [hul] < *skul* ‘exhort’

fricativisation blocked with palatalised velars

[k^he] < *skyas* ‘carry, convey’; [kjot] < *skyod* ‘go, come (hon)’; [kerak] < **skyerags* ‘belt’; [ketpa] < **rkyed* ‘back’ (CT *rked, sked*)

$s + p \rightarrow [f]$

[fuk] < *spug* (*sbub*) ‘pitch up’

but $s, r, l + t \rightarrow [t]$

[ta] < *rta* ‘horse’

$r + ts \rightarrow [s]$, $r + dz \rightarrow [z]$

[son] < (*b*)*rtson* ‘strive’; [zoq] < *rdzogs* ‘finish, vanish’

$s + b \rightarrow [v]$

[vil] < **sbyil* (< (*h*)*byil*) ‘anoint’; [ve] < *sbos* ‘swell’

medial fricativisation

[sikfon] < (*b*)*rtsigsdpon* ‘mason’

SHARA [ÇARA]

$d, r, s + k \rightarrow [h]$

[honmo] < *dkonmo* ‘rare’; [hunma] < *rkunma* ‘thief’; [honce] < *skoncas* ‘dress (sb)’; but [karma] < *skarma* ‘star’

fricativisation blocked with palatalised velars

[kitpo] < *skyidpo* ‘happy’

$r, l, s + t \rightarrow [t]$

[taseha] < *rtasika* ‘on the horse’; [tefin] < *bltaspin* ‘I looked at’; [targa] < *starga* ‘walnut’

$d, s + p \rightarrow [p]$

[pera] < *dpesgra* ‘speech’; [puŋ] < *spuŋ* ‘heap’

medial fricativisation

[kaχfo] < *dkagspo* ‘difficult’; [-fin] < *-s-pin* (past marker)

GYA

$g, (b,) r + ts \rightarrow [s]$

[safo] < *gtsaŋspo* ‘river’; [sokpo] < *b/rtsoḡpo* ‘bad’; [si] < *rtsi* ‘count’; but [tsāp] < *btsab* ‘chop, hash, mince’; [tsōndri] < *brtsonḡgrus* ‘effort’

medial fricativisation $d, l + k \rightarrow [h]$, $r, s + k \rightarrow [(r)h]$

[Drohar] < *Sgrolḡkar*; [kārhuŋ] < *d/skarkhuŋ* ‘window’; [γohor] < *mgoskor* ‘deception’; [Poḡthat] ~ [Poḡkat] < *bodskat* ‘Tibetan’; [tḡhuhol] < *chuskol* ‘boiled water’, but [homkol] < *ḡoskol* ‘boiled milk’, [tḡakol] < *jaskol* ‘boiled tea’; [zuhut] ~ [zurhut] < *gžuskud* ‘bowstring’; [jarham] < *šaskam* ‘dried meat’

medial fricativisation blocked with palatalised velar

[-kil] < *-dkyil* ‘-middle’

medial fricativisation $l + p \rightarrow [lf]$, $s + p \rightarrow [f]$

[kālfa] < *bskalpa* ‘aeon’; [jūlfā] < *yulpa* ‘villager’; [tḡhigyālfā] < *phyirrgyālfā* ‘foreigner’; [γolfāk] < *mgolpags* ‘scalp’; [γefu] < *mgospu* ‘hair (on the head)’

HAMELING (ZANSKAR)

$d, r, s + k \rightarrow [h]$

[hon] < *dkon* ‘scarce’; but [karfho] < *dkarpo* ‘white’; [hunma] < *rkunma* ‘thief’; [hu] < *sku* ‘statue’, [hampo] < *skampo* ‘dry’

$s + ky \rightarrow [ç]$ (or perhaps [ḡç])

[çamo] < *skyamo* ‘lay woman’; [çot] < *skyod* ‘go, come (hon)’; [çitpo] < *skyidpo* ‘happy’

$d, b, r, s + g \rightarrow [γ]$

[γamo] < *dgaḡmo* ‘happy’; [γotḡe] < *bgocas* ‘to divide’; [γatpo] < *rgadpo* ‘old (man)’, [γo] < *sgo* ‘door’

$r + gy \rightarrow [fj]$

[fjatso] < *rgyamtsho* ‘ocean’; [fjafo] < *rgyalpo* ‘king’

no fricativisation and no loss of cluster with radical *t*

[ɾta] < *rta* ‘horse’; [l̥htaʃe] < *ltacas* ‘to look at’; [starga] < *starga* ‘walnut’

b, r, z + d → [ð]

[ðemo] < *bdemo* ‘nice’; [ðuŋʃe] < (*b*)*rduŋcas* ‘to hit, strike’; [ðuiven] < *zduspin* ‘I gathered’; but [lduŋma] < *rduŋma* ‘beam’

no fricativisation and no loss of cluster *ld*

[ldemldem] < *ldemldem* ‘swinging’

d, s + p → [f]

[fao] < *dpabo* ‘hero’; [faŋpo] < *dpaŋpo* ‘witness’; [fitka] < *dpyidka* ‘spring’; [fera] < *dpesgra* ‘speech’

s + b → [v]

[ve] < *sbas* ‘hid’; [khe vu] < *khaŋi sbugs* ‘upside down’

medial fricativisation (final *-r* is always retained)

r + k → [rh], *s + k* → [h]

[jarha] < *dbyarka* ‘summer’, [karhuŋ] < *d/skarkhuŋ* ‘window’; [leha] < *laska* ‘work’

r + p → [rf], *l, s + p* → [f]

[karfo] < *dkarpo* ‘white’; [fijafo] < *rgyalpo* ‘king’, [ɣolfak] < *mgolpags* ‘scalp’; [sāfo] < *gtsaŋspo* ‘river’

r + (h)d → [rð], *s + [d] (< t)* → [ð]

[phurðuk] < *hphurhdug* ‘is flying’; [ɣoeðe] < *bgos*de* (< *te*) ‘divided and’; [peðe] < *phes*de* ‘opened and’; [poeðe] < *phos*de* ‘poured out and’

s + b, s + [b] (< p) → [v]

[boeven] < *bos*bin* (< *pin*) ‘(I) called’, [zāvu] < *zaŋsbu* ‘pot’

ABBREVIATIONS

Dictionaries, compendia, and texts

- BRGY Tibetan-Tibetan-Chinese dictionary, Zhang (1993)
 CDTD Comparative dictionary of Tibetan dialects, Bielmeier (in preparation)
 JÄK Tibetan-English dictionary, Jäschke (1881)
 LLV Lower Ladakhi version of the Kesar epic, Francke (1905-41)
 LSI Linguistic Survey of India, Grierson (1909)
 RN Ladakhi-English dictionary, Norman (in preparation)

SPR Balti-English, English-Balti dictionary, Sprigg (2002)

Tibetan:

CT Classical Tibetan

OT Old Tibetan or pre-classical Tibetan (mid 7th - end of 11th century)

WT West Tibetan (Balti and Ladakhi)

Ladakhi dialects and consultants

ACH Achinathang, western Sham, consultant: Skarma Namthak

ARA Aranu, northern Nubra, consultant: Tsering Youdon

CEM Cemre, Upper Indus, consultant: Padma Dohar

DOM Domkhar, western Sham, consultants: Thrinlas Chosphel, Tshewang Tharchin

DRS Dras, bilingual: *Brokskat* (Shina) and Purik, consultant (L1): Dr. Saleem Mir

GARK Garkhon, bilingual: *Brokskat* and Purik, consultant (L2): Stanzin Angmo

GYA Gya, Upper Indus side valley, narrator (Kesar story, recorded 1996): late Tsewang Norbu

GYS Gya-Sasoma, Upper Indus side valley, consultant: Mengyur Tshomo, narrator (Gyapa Co 2005): Urgyen Rigzin (consultant's father)

HML Hameling, Upper Zanskar, consultant: Tsering Angmo

KHAL Khalatse, western Sham, speaker (personal narrative 2005): Tondrup Tshering

LAG Laga, Shayok valley, consultant: Phuntsok Namgyal

LEH Leh, Central Ladakh, consultant (among others): Thrinles Wangmo

MND Manda, Upper Zanskar, Hoshi, Michiyo and Tondup Tsering (1978)

NYO Nyoma, southern Changthang, consultant: Rigzin Samdup

PIP Pipcha, Central Zanskar, consultant: Tsering Samdup

SAS Saspol, eastern Sham, consultant Phuntsok Dolma

SHA Shara, Upper Indus, consultant: Thukche Dolma

SYK Shayok, Shayok valley consultant: Stanzin Dorje

Grammatical markers

Abl ablative

Dat dative-allative

Erg ergative

Gen genitive

Instr instrumental

Loc locative
 PPos- postposition

BIBLIOGRAPHY

- Bailey, Thomas Graham. 1924. *Grammar of the Shina (Ṣiṇa) language, consisting of a full grammar, with texts and vocabularies of the main or Gilgit dialect and briefer grammars (with vocabularies and texts) of the Khohistani, Guresi and Drasi dialects.* (Prize Publication Fund, 3.) London: Royal Asiatic Society.
- Beckwith, Christopher I. 2005. Toward a Tibeto-Burman theory. In Christopher I. Beckwith, ed., *Medieval Tibeto-Burman languages II, PIATS 2003: Tibetan studies: Proceedings of the Tenth Seminar of the International Association for Tibetan Studies, Oxford 2003.* (Brills Tibetan Studies Library, 10.) Brill, Leiden etc.: 1-38.
- Beyer, Stephan V. 1992. *The Classical Tibetan language.* New York: State University of New York. Reprint 1993. (Bibliotheca Indo-Buddhica series, 116.) Delhi: Sri Satguru.
- Bielmeier, Roland. 1985. *Das Märchen vom Prinzen Čobzañ. Eine tibetische Erzählung aus Baltistan. Text, Übersetzung, Grammatik und westtibetisch vergleichendes Glossar.* (Beiträge zur tibetischen Erzählforschung, 6.) St. Augustin: VGH Wissenschaftsverlag.
- . 2004. Lexikalische Variation und lexikalischer Wandel im Tibetischen am Beispiel einiger Körperteilbezeichnungen. In Wiltrud Mihatsch and Reinhild Steinberg, eds., *Lexical data and universals of semantic change.* (Stauffenburg-Linguistik, 35.) Tübingen: Stauffenburg, 167-202.
- . In preparation. *Comparative dictionary of Tibetan dialects.* Vol. I: Verbs. (Preprint No. I, 1997/pdf-version 02/2008.)
- Csoma de Kőrös, Alexander. 1834. *A Grammar of the Tibetan language in English.* Prepared under the patronage of the government and the auspices of the Asiatic Society of Bengal. Calcutta: Baptist Mission Press. Reprint 1984. (Collected works of Alexander Csoma de Kőrös, 2.) Budapest: Akadémiai Kiadó.
- DeLancey, Scott. 1982. Lhasa Tibetan: a case study in ergative typology. *Journal of linguistic research* 2.1: 21-31.
- . 1984. Etymological notes on Tibeto-Burman case particles. *Linguistics of the Tibeto-Burman Area* 8.1: 59-77.
- . 1997. Mirativity: The grammatical marking of unexpected information. *Linguistic Typology* 1: 33-52.
- Denwood, Philip. 1986. 'The Tibetan noun final -s.' *Linguistics of the Tibeto-Burman Area.* 9.1: 97-101.
- Francke, August Hermann. 1901. Sketch of Ladakhi grammar. *Journal of the Asiatic Society of Bengal* 70: 1-63. Reprint as: *Ladakhi and Tibetan grammar.* Delhi 1979: Seema Publications.
- . 1904. A language map of West Tibet with notes. *Journal of the Asiatic Society of Bengal* 73: 362-67.
- . 1905-41. *Gšamyulna bšadpaḥi Kesargyi sgruṅs bžugs. A Lower Ladakhi version of the Kesar saga.* (Bibliotheca Indica, work, 168.), Calcutta 1905-1909 (Fasc. 1-4), 1941 (Fasc. 5): Royal Asiatic Society of Bengal. Reprint 1981: *The Epic of Gesar.* Kunzang Tobgyel and Mani Dorje, eds., Vol. 29. Thimphu, Bhutan: Druk Sherig Press.

- . 1928. *Gzer-myig*, a book of the Tibetan Bonpos. Tibetan text according to the Berlin-manuscript (chapter VI). *Asia Major* 4.4: 481–540.
- Ghulam Hassan Lobsang. 1995. *Short sketch of Balti grammar. A Tibetan dialect spoken in Northern Pakistan*. (Universität Bern, Institut für Sprachwissenschaft, Arbeitspapier, 34.) Bern: Universität Bern.
- Grierson, George Abraham, ed. 1909. *Linguistic Survey of India*. Vol. III: Tibeto-Burman family, Part I: General introduction, specimens of the Tibetan dialects, and the North Assam group. Calcutta: Superintendent of Government Printing. Reprint 1967, Delhi etc: Motilal Banarsidass.
- Häsler, Katrin Louise. 1999. *A grammar of the Tibetan Dege (Sde dge) dialect*. Zürich: Selbstverlag.
- Haller Felix. 2004. *Dialekt und Erzählungen von Themchen*. (Beiträge zur tibetischen Erzählforschung, 14.) Bonn: VGH Wissenschaftsverlag.
- Herrmann, Silke. 1983. *Die tibetische Version des Papageienbuches*. (Beiträge zur tibetischen Erzählforschung, 5.) St. Augustin: VGH-Wissenschaftsverlag
- . 1989. *Erzählungen und Dialekt von Dinri*. (Beiträge zur tibetischen Erzählforschung, 9.) Bonn: VGH-Wissenschaftsverlag.
- Honda, Isao. 2007. A comparative and historical study of demonstratives and plural markers in Tamangic languages. In Bielmeier, Roland and Felix Haller, eds., *Himalayan linguistics and beyond*. (Trends in Linguistics, Studies and Monographs, 196.) Mouton de Gruyter, Berlin, New York.
- Hoshi, Michiyo and Tondup Tsering. 1978. *Zangskar vocabulary. A dialect spoken in Kashmir*. (Monumenta Serindica, 5.) Tokyo: Institute for the Study of Languages and Cultures of Asia and Africa.
- Hu Tan. 1989. Comparative sentences in Tibetan. *Acta Orientalia Academiae Scientiarum Hungaricae* 43.2-3: 399-408.
- Huber, Brigitte. 2005. *The Tibetan dialect of Lende (Kyrong)*. (Beiträge zur tibetischen Erzählforschung, 15.) Bonn: VGH Wissenschaftsverlag.
- Imaeda, Yoshiro & al. 2007. *Tibetan Documents from Dunhuang kept at the Bibliothèque Nationale de France and the British Library*. (Old Tibetan Documents Online Monograph Series.) Tokyo: Research Institute for Languages and Cultures of Asia and Africa Tokyo University of Foreign Studies. <http://otdo.aa.tufs.ac.jp>.
- Jäschke, Heinrich August. 1881. *A Tibetan-English dictionary. With special reference to prevailing dialects*. London. 4th reprint 1992, Delhi: Motilal Banarsidass.
- Jacques, Guillaume. 2006. La chute du -s en tibétain de l'est. (XXèmes Journées de Linguistique d'Asie Orientale, Paris 22-24 Juin 2006). [http://xiang.free.fr/La chute du s.pdf](http://xiang.free.fr/La_chute_du_s.pdf).
- Jettmar, Karl. 1961. Ethnological research in Dardistan 1958. Preliminary report. *Proceedings of the American Philosophical Society* 105.1: 79-97.
- Kitamura, Hajime, Kalsang Namgyal, Kalsang Lhawang, and Michiyo Hoshi. 1977. *Glo skad. A material of a dialect in the Nepal Himalayas*. (Monumenta Serindica, 3.) Tokyo: Institute for the Study of Languages and Cultures of Asia and Africa.
- Koshal, Sanyukta. 1979. *Ladakhi Grammar*. Delhi etc.: Motilal Banarsidass.
- . 1990. The Ladakhi language and its regional perspectives. *Acta Orientalia Academiae Scientiarum Hungariae* 44: 13–22.
- Kretschmar, Monika. 1986. *Erzählungen und Dialekt der Drokpas aus Südwest-Tibet*. (Beiträge zur tibetischen Erzählforschung, 8.) St. Augustin: VGH Wissenschaftsverlag.
- . 1995. *Erzählungen und Dialekt aus Südmostang*. Vol. III: *Untersuchung zur Grammatik des Südmostang-Dialekts*; Vol. IV: *Wörterbuch zum Südmostang-*

- Dialekt*. (Beiträge zur tibetischen Erzählforschung, 12.) St. Augustin: VGH Wissenschaftsverlag.
- Laufer, Berthold. 1911. Btsunmo bkahi thanyig. *Der Roman einer tibetischen Königin. Tibetischer Text und Übersetzung*. Leipzig: Harrassowitz.
- Norman, Rebecca. In preparation. Dictionary of the language spoken by Ladakhis.
- Roerich, Georges de. 1933. The Tibetan dialect of Lahul. *Journal of the Urusvati Himalayan Research Institute* 3: 83-189.
- Róna-Tas, András. 1966. *Tibeto-Mongolica. The Tibetan loanwords of Monguor and the development of the archaic Tibetan dialects*. (Indo-Iranian Monographs, 7.) The Hague etc.: Mouton.
- Samten G. Karmay. 1998. An open letter by Pho-brang Zhi-ba-'od. In Samten G. Karmay, *The arrow and the spindle. Studies in history myths, rituals and beliefs in Tibet*. Kathmandu: Mandala Book Point.
- Schmidt, Ruth Leila and Razwal Kohistani. 2008. *A grammar of the Shina language of Indus Kohistan*. In collaboration with Mohammad Manza Zarin. (Beiträge zur Kenntnis südasiatischer Sprachen und Literaturen, 17.) Wiesbaden: Harrassowitz.
- Sharma, Devi Datt. 1989. *Tribal languages of Himachal Pradesh*. Part I. [Tibeto-Himalayan dialects of Lahoul: Pattani, Tinani, Gahri, Tod.] (Studies in Tibeto-Himalayan Languages, 2.) Delhi: Mittal.
- . 1992. *Tribal languages of Himachal Pradesh*. Part II. [Tibeto-Himalayan dialects of Spiti, Kinnaur and Pang: Spitian, Nyamkat, Chhitkuli, Kanasi (Malani).] (Studies in Tibeto-Himalayan Languages, 2.) Delhi: Mittal.
- . 1998. *Tribal languages of Ladakh I. (Part one. A concise grammar and dictionary of Brok-skad)*. (Studies in Tibeto-Himalayan languages, 6.) New Delhi: Mittal.
- Shirai, Satoko. 1999. Chibettogo gendai Rasa hogenno 2 onsetsukanni arawareru -bnitsuite (On the inter-syllabic -b- in Modern Lhasa Tibetan). *Gengogaku Kenkyu* (Linguistic Research) 17-18: 59-72.
- Shawe, F.B. 1894. On the relationship between Tibetan orthography and the original pronunciation of the language. *Journal of the Asiatic Society of Bengal* 63: 4-19.
- Simon, Walter. 1940. Certain Tibetan suffixes and their combinations. *Harvard Journal of Asiatic Studies* 5.3/4: 372-391.
- . 1977. Alternation of final vowel with final dental nasal or plosive in Tibetan. *Bulletin of the School of Oriental and African Studies* 40.1: 51-57.
- Sprigg, Richard Keith. 2002. *Balti-English English-Balti Dictionary*. London, N.Y.: RoutledgeCurzon.
- Sun, Jackson T.-S. 1986. *Aspects of the phonology of Amdo Tibetan*. Tokyo.
- . 2003. Phonological profile of Zhongu: a new Tibetan dialect of northern Sichuan. *Language and Linguistics* 4.4: 769-836.
- Suzuki, Hiroyuki, this volume. Dialectal Particularities of Sogpho Tibetan – An Introduction to the “Twenty-four villages’ patois”
- Thomas, Frederick William. 1957. *Ancient folk-literature from north-eastern Tibet*. (Abhandlungen der Deutschen Akademie der Wissenschaften zu Berlin, Klasse für Sprachen, Literatur und Kunst, Jahrgang 1952, Nr. 3.) Berlin: Akademie-Verlag.
- Tourmadre, Nicolas. 1995. Tibetan ergativity and the trajectory model. *Senri Ethnological Studies* 41: 261-275. (Originally in: Hajime Kitamura, Tatsuo Nishida and Yasuhiko Nagano, eds., *Current Issues in Sino-Tibetan Linguistics*. Osaka: The Organising Committee, 637-648.)
- . 1996. *L'ergativité en tibétain. Approche morphosyntaxique de la langue parlée*. (Bibliothèque de l'information grammaticale, 33.) Paris, Leuven: Peeters.
- Uebach, Helga and Bettina Zeisler. 2008. *rJe blas, pha los* and other compounds with suffix -s in Old Tibetan texts. In Brigitte Huber, Marianne Volkart und Paul Widmer,

- Hgg., *Chomolangma, Demawend und Kasbek. Festschrift für Roland Bielmeier zu seinem 65. Geburtstag, Band I: Chomolangma*. Halle: International Institute for Tibetan and Buddhist Studies, 309–334.
- Uray, Géza. 1952. A Tibetan diminutive suffix. *Acta Orientalia Scientiarum Hungaricae* 2: 182-220.
- . 1955. On the Tibetan letters *ba* and *wa*. Contribution to the origin and history of the Tibetan alphabet. *Acta Orientalia Scientiarum Hungaricae* 5.1-2: 101-121.
- . 1972. Queen Sad-mar-kar's songs in the Old Tibetan Chronicle. *Acta Orientalia Scientiarum Hungaricae* 25: 5-38.
- Zeisler, Bettina. 2004. *Relative Tense and aspectual values in Tibetan languages. A comparative study*. (Trends in Linguistics, Studies and Monographs, 150.) Mouton de Gruyter, Berlin, New York.
- . 2006. The Tibetan understanding of *karman*: Some problems of Tibetan case marking. In Christopher I. Beckwith, ed., *Medieval Tibeto-Burman languages II, PIATS 2003: Tibetan studies: Proceedings of the Tenth Seminar of the International Association for Tibetan Studies, Oxford 2003*. (Brills Tibetan Studies Library, 10.) Brill, Leiden etc., 57-101.
- . 2007. Case patterns and pattern variation in Ladakhi: a field report. In Bielmeier, Roland and Felix Haller, eds., *Himalayan linguistics and beyond*. (Trends in Linguistics, Studies and Monographs, 196.) Mouton de Gruyter, Berlin, New York, 399-425.
- . 2009. *Skaddi hgyurcanaj rdobaḥi mentogtsogsla luskanni sḥonhjug baḥi rdzes-siskorla*—Language change and the fossilization of the Old Tibetan *b-* prefix in Ladakhi and Balti. In Monisha Ahmed and John Bray, eds., *Recent Research on Ladakh 2009. Papers from the 12th colloquium of the International Association for Ladakh Studies, Kargil*. Kargil & Leh: International Association of Ladakh Studies, 81-96. See also an earlier version (2005) under <http://www.sfb441.uni-tuebingen.de/b11/languageArchaeology.pdf>
- . Forthcoming. *Ethnic diversity, language contact, and the Old Tibetan lingua franca: early Tibetan history and the development of the modern Tibetan dialects*. (Asiatische Forschungen.) Wiesbaden: Harrassowitz.
- . In preparation. *West Tibetan verbal morphology and the reconstruction of the proto-language: the Shafer hypothesis revisited*.
- Zhang, Yisun [*Kraj Dbyisun*] et. al., eds., 1993. *Bod-Rgya tshigmdzod chenmo* (The large Tibetan Chinese dictionary). Vol. 1–2. Pecin: Mirigs dpeskrunkhañ (Beijing: Nationalities Publishing House).