

Reducing phonetical complexity and grammatical opaqueness

Old Tibetan as a *lingua franca* and the development of the modern Tibetan varieties*

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Old Tibetan shows extraordinary complexity in its syllable structure as well as highly complex or rather opaque verb morphology. The syllable structure (CCC)CV(CC) has broken down completely in the modern Central Tibetan dialects to CV(C), while the opaque alternations of prefixes, consonants and vowels in verb stem formation were levelled out and replaced by regular systems of periphrastic construction in the western and central varieties. Both developments can be described as processes of simplification that were triggered in a linguistic contact situation, where Old Tibetan served as a *lingua franca* for various non-Tibetan peoples.

Preliminary remarks

Pidgins and creoles were for a long time defined as phonologically, lexically, and syntactically more or less reduced languages, but recent research seems to indicate that many features of pidgins and creoles are less 'simple' than in earlier, possibly biased descriptions. As a consequence, the specialists in the field suggest that the equation of pidginisation = simplification and creolisation = (re-) complexification does not hold, not even as a general tendency. This change of perspective made it almost impossible to write the present article. Even more so as this terminological problem has quite different facets.

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The first difficulty is that the notions of simplicity and complexity have been burdened with inadequate judgements about mental abilities or social advancement of the respective speech communities. From a more or less naive Eurocentric evolutionary perspective it was taken for granted that an inflectional language is more complex *and* more advanced than, say, an agglutinative or even analytic language.

The main problem lies in the association of two unrelated facts (complexity and social advancement). Taking an anti-colonial stance by merely exchanging the labels thus does not really help, since any die-hard could subscribe to a logical reversal, namely that inflection or any kind of syntactification is, in fact, a means of simplification, while at the same time insisting that the resulting simplicity is reflecting a 'higher sense of abstraction', and thus again only to be found in languages of 'higher civilisations'.¹

Unfortunately, any replacement by expressions, such as *more* or *less* 'economic', 'structured', or 'syntactic', faces exactly the same difficulty, as such new terms can again be misused for socio-political judgements in terms of 'primitiveness' or 'advancement'. Besides, they might reflect the speaker's socio-economic background rather than the linguistic facts. In this paper, the use of the words 'simple' and 'complex' and related terms is meant to be solely descriptive and does not license any evaluation in terms of 'more' or 'less advanced'.

A further difficulty, at the philosophical level, is to define and measure complexity (or related notions). Depending on the conceptual or technological model(s) behind these notions, the respective judgements might turn out to be incompatible if not contradictory. From an information-processing perspective, e.g., large irregular, if not chaotic sets of entities appear to be more complex than smaller sets governed by a hierarchy of syntactic rules, whereas from a perspective of biological morphology or organisation theory, rules and hierarchies certainly add to the structural complexity of the 'organism' language.

Related to this is the selection of what to count. This might be exemplified with the seemingly uncomplicated matter of phonemic inventories. Apparently, pidgins, and creoles do not differ significantly from other languages in their basic phonetic inventory, i.e. the overall number of consonants and vowels (Bakker 2006; Uffmann 2006). Some pidgins might even show a larger inventory, especially with respect to suprasegmental features (Faraclas 2006).

1. This can be exemplified with the stance taken against lexical complexity: lack of generic terms and richness of concrete terms were often enough interpreted as a symptom of mental "primitiveness". Almost as frequently, "primitiveness" becomes the object of romanticisation. I might recall here the usual exaggeration concerning the number of expressions for 'snow' in Inuit. Indigenous generic terms probably often went unnoticed (as they did not present themselves to the European mind, not being, so to speak, in the questionnaire) or they were again rejected (or acclaimed) as being "primitive" whenever going against the European classifications (cf. Borghes' satirical "Chinese classification of animals", which made its way even into modern philosophy as a real fact).

Nobody, however, would deny that languages differ essentially with respect to syllable or word structure, such as the number of consonants that can combine at a certain position or the overall length of a semantic unit. It is thus important to discuss all these features together in order to avoid contradictory results. In Modern Lhasa Tibetan, e.g., one can observe a dramatic rise in the phonemic inventory, but at the same time an even more dramatic reduction in the number of possible syllables (cf. Section 0 below). And it is likewise important not to lose sight of the general background.

According to Uffmann (2006), a few West African creoles have more complex onset and coda clusters than their substrates, though still below the level of the superstrate (nothing being said about the overall word length). But in the context of the languages discussed, this is not really surprising. Given the very basic syllable structure of the substrate languages (CV , CVC_{nasal} or $CC_{\text{glide/liquid}}V$), it is difficult to imagine how this structure could be even further simplified. Moreover, the abstract structural patterns alone do not tell us much about the combinatory possibilities of a language, especially since the more complex combinations typically allow less variation, due to articulatory restrictions, and a language with only CC clusters could, in principle, show more variation than another one allowing CCC clusters. Finally, if a given variety has more complex consonant onsets or codas than its sub- or superstrate, this could be due to contractions of originally syllabic elements (hence the necessity to compare the word or morpheme length).

The last and perhaps most vexing difficulty is that the terms ‘simplicity’ and ‘complexity’ and even more all possible substitutes are highly context-dependent. There will always be at least one perspective under which a given feature is ‘simple’ or at least ‘economic’, ‘easy to process’ or ‘acquire’, etc. and at the same time there will be at least one perspective under which the opposite holds true. What might be syntactically economic and hence speeding up the mental processing of information might be difficult to acquire or leading to an undesired loss of semantic precision while, on the other hand, semantic precision is costly in terms of utterance length and thus also mental processing. The needs of efficient language acquisition, utterance production, and utterance processing are to a certain extent conflicting, and their different strategies make the notions of ‘complexity’ and ‘simplicity’ somewhat arbitrary. But without these notions we lack an essential motivation for changes in language, and ultimately we might no longer be able to argue about whether a particular change is triggered by more internal processes or through language contact.

It is the latter question that is essential for my own research into the history of the Tibetan languages. The development that I am going to describe, especially the extreme simplification of syllable onsets, has long been taken by Tibetologists as an internal development starting in the centre of the Tibetan region and spreading slowly to the peripheral areas without reaching the westernmost areas of Baltistan and Ladakh and the easternmost areas of the nomadic populations in Amdo and Kham. However, with respect to the Balti and Ladakhi varieties, the historical facts are not in accordance with this assumption and with respect to the second feature

to be discussed, i.e. verbal morphology, it turns out that the reorganisation is even further developed in the westernmost periphery than in the 'centre'.

The development of the misleadingly so-called 'archaic' or 'conservative' West Tibetan varieties can only be explained as an outcome of a long lasting contact situation between primarily Tibeto-Burman and Indo-Iranian languages and a gradual shift to the then *spoken* Old Tibetan *lingua franca*. Even the development of the Central Tibetan varieties is better explained as a result of linguistic contact than as a result of internal development.

While the idea of Old Tibetan as a *lingua franca* in Central Asia might not be entirely new, my suggestions concerning contact-induced simplifications might come as a surprise for most scholars in the field of Tibetan philology. What I am presenting here is not much more than a hypothesis, which, quite probably, cannot be proved, but which seems to have more explanatory force than previous assumptions.

1. Old Tibetan (OT; ca. 650 C.E. – ca. 1050)²

Tibet and her language left the darkness of prehistory at the moment when a petty kingdom or a confederacy of diverse tribes started to expand into Central Asia under a centralised power, the Tibetan emperors (*brtsanpo*-s). At the same time, in the first half of the 7th century, the Tibetan script was officially introduced for administrative purposes. With the conquests of oasis towns in Eastern Turkistan, Tibet gained control over essential parts of the Silk Route, and this apparently led to the development of a particular *Archaic Tibetan variety³ into a *lingua franca*, or rather to the adoption of an already existing *lingua franca* as the language of administration and commerce in the new empire. The Central Asian elites obviously adopted OT also as a cultural *lingua franca* and started transmitting their own mythology as well as Indian epics in OT. During the second half of the 8th century, when Buddhism became the state religion in Tibet, OT finally became the *lingua franca* of religion.

The Tibetan Empire came to an end in 848. OT, however, remained in use in Central Asia during the next two centuries, particularly as *the* language of religion, but it can be assumed that it also continued as a colloquial language of commerce. The Dunhuang caves (where most of the OT documents were found) were sealed off at the beginning of the 11th century in the course of an Arab invasion, and this event seems to indicate the beginning of the end of the oral OT *lingua franca* in Central Asia, as well.

2. As this paper is written for a general linguistic audience, discussion of the cultural and historical background is reduced to a minimum. More details will be found in a monograph addressing the Tibetan studies audience (Zeisler, to appear b).

3. An asterisk is used whenever I refer to a merely hypothetical language state.

1.1 Phonological complexity of Old Tibetan

Written OT shows extremely complex syllable onsets of up to 4 consonants and syllable codas of up to 2 consonants, CCCCVC. Of course, there are restrictions on the combinations (see Beckwith 2006), and the extreme case of four initial consonants can only be found in combination with velar radicals.⁴ In the writing system,

4. The 30 consonants or radicals of the Tibetan alphabet are: k, kh, g, ŋ, c [tʃ], ch [tʃʰ], j [dʒ], ñ [ɲ], t, th, d, n, p, ph, b, m, ts, tsh, dz, w, ʰ [ɦ/ɣ], y [j], r, l, ž [ʒ], z, š [ʃ], s, h, a [ʔ]; all of them representing basic phonemes, but the phoneme /l/ is represented by the cluster superscript *l* plus radical *h*. It is an open question whether the aspiration contrast was fully phonemic in Proto-Tibetan, but it is so in Classical Tibetan, although most voiceless non-aspirated initials appear to be restricted to marginal vocabulary (onomatopoeic words, adverbs, and loan words), or might be phonetically conditioned (reduplicated words). Only the following onset combinations are attested in OT and CT (R = radical, p = prescript, sup = superscript; s = subscript; ⁰ = unproductive, singular; ¹ = marginal vocabulary (onomatopoeic forms, clitics, adverbs, possible loans); ² = only in loans; ³ = not attested in OT; ⁴ = OT spelling conventions; ⁵ = only attested in OT, but not necessarily with phonemic status (cf. Beckwith 2006: 53–54; because of diverging assumptions, his list is not complete):

Table I. Classical (and Old) Tibetan onset clusters

2 elements			3 elements			4 elements	
R s	p R	sup R	R s s	p R s	sup R s	p sup R	p sup R s
¹ ky, ¹ kr, kl, ⁰² kw	dk, bk,	rk, lk, sk		dky, dkr, ³ bky, ³ bkr, ⁰³ bkl	rky, sky, skr	³ brk, bsk	bsky, ³ bskr
khy, khr, ⁰³ khw	mkh, hkh, ⁵ bkh			mkhy, mkhr, ³ hkhy, hkhr			
gy, gr, gl	dḡ, bg, mg, ḡg	rg, ³ lg, sg	⁰³ grw	dgy, dgr, bgy, bgr, mgy, mgr, ḡgy, ḡgr	rgy, sgy, sgr	brg, bsg	brgy, bsgy, bsgr
	dij, mij	rj, lj, sj				³ brj, bsj	
	gc, bc	⁵ rc, lc, ⁵ sc					
	mch, hch, ⁵ bch, ⁵ gch						
	mj, hj	rj, lj,				brj	
	gñ, ⁵ bñ, mñ	rñ, sñ				brñ, bsñ	
² tr	gt, bt	rt, lt, st				brt, blt, bst	
² thr	mth, hth, ⁵ bth, ⁵ gth						
dr	gd, bd, md, ḡd	rd, ld, sd		⁰ bd, ḡd		brd, bsd	
	gn, ⁵ bn, mn	rn, sn				brn, bsn	
⁰⁴ pr	dp, sp		⁰ pyw	dpy, dpr, spy, spr			
phy, phr	hph			hphy, hphr			
by, br, bl	db, ḡb	rb, ⁰ lb, sb		dby, dbr, ḡby, ḡbr	sby, sbr		
my	dm	rm, sm		dmy	rmy, smy, ⁰ smr		
	gts, bts	rts, sts			⁰ rtsw	brts, bst	
⁰ tshw	mtsh, htsh						

possible slots		example syllable	transliteration	translation
	i/e/o/			
b/g/d/m/h	r/l/s	b s bs བསྐྱེད་པའི་	<i>bsgrubs</i>	'accomplished'
	C	g		
	r/y/l/w	r		
	/u	u		

Figure 1. The structure of the graphic representation

the clusters are represented by consonant signs that are written before, above, or below the radical or basic consonant.⁵ All consonants are arranged relative to an invisible upper line. Superscribed consonants thus 'push' the radical consonants 'down'. Among the prescripts, only *b-* can combine with the superscripts. The vowel *a* is not represented in the script; it follows the onset by default if no other vowel sign is written. A graphically syllabic notation with the help of a final dot, the possibility of vertical combinations, and a few combinatory rules guarantee that the inherent vowel *a* can always be located at the right place.

As can be seen in Figure 2, the phonological complexity of OT was already somewhat reduced in the written language of Classical Tibetan (CT, ca. 11th–19th century), by the loss of post-final *-d*. The syllable structure is almost completely reduced to CV(C) in present day Central Tibetan (CtrT), particularly in Lhasa Tibetan (LT). Only the combination velar plus palatal glide (though commonly treated as simple phoneme) survived the simplification process, whereas the original complexity is retained to a large extent in West Tibetan (WT), where one can still find syllables of the CCCVCC type, and, to a lesser extent, in some Amdo Tibetan (AT) varieties, where the maximally complex syllable takes the form CCCVC (cf. Haller 2004: 30).

2 elements		3 elements			4 elements	
	mdz, ḥdz	rdz			brdz	
	gž, ṣdž, bž					
zl	gz, ṣdz, bz		bzl			
	g-y					
rl, ⁰ rw			brl			
	gš, bš					
sr, sl	gs, bs		bsr, bsl			
³ hr						

5. The Tibetan grammarians take the basic consonant as the root consonant. But the graphic analysis does not always reflect the historical linguistic facts. E.g. subscribed *-l-* (except perhaps in the combination *zl-*) must have been an original root consonant (Beyer 1992: 74–79), and there is some evidence that this holds also for (at least some) combinations with subscribed *-r-* and of labial with subscribed *-y-* (cf. Beyer 1992: 73; Zeisler in preparation).

pre-radical pre- and super-scribed ⁶			radical	post-radical subscribed		coda	
						'final'	'post-final'
OT	<i>b-</i>	<i>-r,l,s-</i>	C _{1,3,4}	<i>-y,r,l(w)</i>	V	<i>-g,ŋ,b,m</i>	<i>-s</i>
		<i>g,d,b-</i>	C _{1,4}			<i>-n,r,l</i>	<i>-d</i>
		<i>m-</i>	C _{2,4}			<i>-d,s</i>	
		<i>h-</i>	C _{2,3}				
CT	<i>b-</i>	<i>-r,l,s-</i>	C _{1,3,4}	<i>-y,r,l(w)</i>	V	<i>-g,ŋ,b,m</i>	<i>-s</i>
		<i>g,d,b-</i>	C _{1,3,4}			<i>-n,r,l</i>	traces of <i>-d</i>
		<i>m-</i>	C _{2,4}			<i>-d,s</i>	
		<i>h-</i>	C _{2,3}				
WT			C ₂	<i>-y,(r)⁷, (w)⁸</i>	V	<i>-g,ŋ,d,n,b,m,r,l</i>	<i>-s</i>
		<i>g,b, r,l,s⁻⁹</i>	C _{1,3,4}			<i>-s</i>	
LT			C _{1,2+tone}	<i>-y</i> ■■■	V	<i>-g,ŋ,b,m</i>	
						traces of <i>-d,n,r,l,s</i>	
AT		nasal	C _{2,4}	■■■ (w) ¹⁰	V	<i>-g,ŋ,n,b,m,r,l(<d,l)</i>	
		<i>g,(d),b,r-¹¹</i>	C _{1,3,4}			traces of <i>-s</i>	

C₁: [-voice, -aspiration]; C₂: [-voice, +aspiration]; C₃: [+voice]; C₄: nasal.

Figure 2. The development of syllable structure

6. The light grey tone highlights combinatory features or elements that have been slightly changed or reorganised, the dark grey tone is used for elements that have been completely lost. The presentation is a gross simplification, and the combinatory rules for C refer only to the preceding consonants.

7. In most modern Tibetan varieties, combinations with the alveolar trill have become what is somewhat unfortunately described as 'retroflex' stop or affricate. It is typically treated as a single consonant. Except for the manner of articulation, the Tibetan 'retroflexes' have nothing in common with the retroflexes of Indian languages. The West Tibetan 'retroflexes' might perhaps be better described as affricates, or clusters of alveolar stops with the alveolar trill [tʀ/tʀ^h/dʀ]. Some Western Ladakhi dialects have preserved the combination of labial stop plus alveolar trill, most of the Purik and Balti dialects even preserve the combination velar plus alveolar trill.

8. Not a continuation of the OT/CT semivowel, and only found in the westernmost varieties, where it replaces the vowels *o* or *u* as first element of diphthongs.

9. The former pre-radicals *g-* and *b-* have been preserved only in Balti as /χ-/ , /γ-/ , and /b-/ , /ph-/ , of which only χ- combines with nasals. In the other Shamskat dialects, the former pre-radicals *g-*, *d-*, and *b-* have merged with *r-* as /ʀ-/ and /r-/ . The feature [±voice] is conditioned by the feature [±voice] of the radical.

The loss of complexity in the syllable structure was only partially compensated by the development of suprasegmental features, although the phonemic inventory increased considerably in the tonal varieties. These might thus be far more ‘complex’ than OT, showing a sixfold (in some varieties even eightfold) articulatory distinction of consonants: high tone: k, kh, ŋ versus low tone: k, kh, (g, ⁿg), ŋ in place of the fourfold distinction of OT/CT: k, kh, g, ŋ.¹² But the new oppositions between the low tone aspirated and non-aspirated consonants and the low and high tone nasals only reflect the difference between bare radicals and radicals preceded by pre-radicals. It neither reflects the qualitative differences of the eight pre-radicals nor does it reflect the possibility of combining two pre-radicals. With respect to all possible CT onsets, the tonal varieties have preserved only about a third or less of the original complexity.¹³ The simplification of the syllable structure naturally leads to an increase in homophones.

If one compares the syllabic structure of the modern varieties, it looks as if the reduction of phonological complexity was a process that started in the centre of Tibet (i.e. in Lhasa), and spread towards the periphery, but did not reach the most peripheral areas in the west and in the east (cf. *inter alia* Jäschke 1881: xii; Bielmeier 1998). It was always taken for granted that the reduction was an internal development, particularly “erosion through use” (Stein 1962: 212). The hypothesis of concentric spread is certainly valid for more marginal features or for developments in smaller areas, but with respect to the two features described here there are some serious problems.

First of all, the hypothesis contains some silent assumptions about where to locate the political or cultural ‘centre’ and why the ‘periphery’ should be delinked from the processes in the centre. We do not know enough about early Tibetan history to locate the socio-political ‘epicentre’ of the imperial period. The silent assumption

10. Likewise not a continuation of the OT/CT semivowel, but triggered by an original labial pre-radical.

11. In Themchen, e.g., the former pre-radical *d-* is preserved only as a trace of the former clusters *dp* and *db* /χ/, /ʁ/ and has otherwise merged with *g-* /ç/, /ɣ/ or, together with *l-* and *s-*, with *r-* /ʂ/, /r/; *b-* may be realised as /p/, /φ/, or /b/.

12. Actually an increase by 77% from 31 to 55 consonantal phonemes in Modern Lhasa Tibetan, for speakers using prenasalisation even by 100% to 62 consonantal phonemes (cf. Tournadre 1996: 60–61). One may well question the inclusion of a suprasegmental feature in the consonantal inventory, particularly as it is realised with the following vowel. However, pitch and voice are very closely related features and in the case of Tibetan, pitch distinction developed from voice distinction. Further more, if suprasegmental features should be ignored, I would go on to ask whether manner of articulation should then be considered, at all. If not, the difference between Old and Modern Tibetan would be quite marginal. If yes, the exclusion of the pitch distinction would lead to a reduction of the original inventory by almost one third. Simplification without apparent compensation.

13. 178 initial combinations can be added to the simple consonants of Classical Tibetan (see also Table I, note 4 above), but none in Modern Lhasa Tibetan.

that there was only one main centre and that it was necessarily located at the imperial court in Lhasa could be a projection from modern (nation-state) conceptions of European medieval history. We also do not know much about the ethnic composition of the Tibetan empire, let alone which languages were spoken in which region. It could well be the case that Central Tibet was, linguistically as well as politically, the peripheral area.

A second problem concerns the time schedule. If the phonological development was endogenous, it should have been rather gradual and slow. But this assumption is in conflict with the historical facts (see Section 0 below). A third problem concerns the development of verbal morphology, which does not show a pattern of concentric spread. The OT verbal 'system' is preserved almost completely in the northeast (Amdo), partially in the east (Kham), but is totally reorganised from the centre to the west, following the same lines in the reorganisation process. Even more, in contrast to the phonetic development, the changes turn out to be somewhat more complete in the so-called periphery than in the so-called centre.

1.2 Verbal morphology

OT shows an extremely opaque 'system' consisting of up to four verb stems, based on the distinction of non-causative verbs (1–2 stems if non-agentive, 1–3 if agentive) vs. causative verbs (1–4 stems). Stem I indicates non-anteriority (simultaneity or unmarked posteriority, by default present tense), stem II anteriority (by default past tense), stem III modal (necessitative) posteriority. Stem IV originally indicated ability, but became conventionalised as expression of request. The connotations of necessity and ability presuppose an intentional agent and, therefore, stems III and IV are (with very few exceptions) only found with agentive verbs. The formation of the verb stems is highly unpredictable, and less than half of the verbs show regularities with respect to the number of stems and the formative elements. The original function of most of the formative elements cannot be reconstructed, but it appears that the general arrangement of two plus four stems results from the reorganisation of an earlier derivational pattern with up to eight (with the *s*-causative, nine) slots (cf. Zeisler 2001). In the most complex causative paradigm 1a, the stems are derived by prefix alternation, suffixes, and vocal and consonant alternations.

The development of the modern varieties can be summed up as follows:

- All modern varieties have lost stem III.
- CtrT and WT have lost all grammatical prefixes as well as vowel and consonant alternations for stems I and II.
- Stem IV shows a tendency towards loss of ablaut *a* → *o* in CtrT and WT, its aspiration was lost in WT.
- CtrT has lost the suffixes, but WT shows over-generalisation of suffix *-s*.

Table 1. Main features of some OT and CT causative paradigms

Causative paradigm 1a (ca. 50 verbs):				
stem	I	II	III	IV
prefix	<i>h</i>	<i>b</i>	<i>g ~ d</i>	\emptyset
radical	voiced	OT: [\pm]voiced CT: voiceless	voiced	aspirated
vowel ¹⁴	<i>e (~ o)</i>	<i>a</i>	<i>a</i>	<i>o</i>
suffix	<i>d (s)</i>	$\emptyset ~ s (d)$	\emptyset	$\emptyset ~ s (d)$
Causative paradigm 1b (ca. 10 verbs):				
prefix	<i>g</i>	<i>b</i>	<i>g ~ d</i>	\emptyset
radical	voiceless, non-aspirated	OT: [\pm]aspirated CT: non-aspirated	voiceless, non-aspirated	aspirated
vowel ¹⁴	<i>o</i>	<i>a</i>	<i>a</i>	<i>o</i>
suffix	\emptyset	$\emptyset ~ s (d)$	\emptyset	$\emptyset ~ s (d)$
Causative paradigm 2a (ca. 220 verbs with clusters of superscript plus radical):				
stem	I	II	III	IV
prefix	\emptyset	<i>b</i>	<i>b</i>	\emptyset
vowel ¹⁴	<i>o (~ e)</i>	<i>a</i>	<i>a</i>	<i>o</i>
suffix	$\emptyset (~ d (s))$	<i>s (d)</i>	\emptyset	<i>s (d)</i>
Causative paradigm 2b (ca. 30 verbs):				
stem	I	II	III	IV
prefix	<i>h</i>	<i>b</i>	<i>b</i>	\emptyset
radical	aspirated	OT: [\pm]aspirated CT: non-aspirated	OT: [\pm]aspirated CT: non-aspirated	aspirated
vowel ¹⁴	<i>o (~ e)</i>	<i>a</i>	<i>a</i>	<i>o</i>
suffix	\emptyset	<i>s (d)</i>	\emptyset	<i>s (d)</i>

The assimilation of verb stems was typically oriented towards stem II, infrequently also towards stem I. The assimilation of vowels and consonants must have taken place at different times, because in rare cases they went in different directions (cf. Table 3).

14. The *ablaut* rules are given relative to the second and third stem. There is another *ablaut* *uj + -d > in*d*. While there are only few exceptions concerning the *ablaut* feature for stem I in paradigms 1, the feature is somewhat less frequent in the other paradigms.

Table 2. Development of the verbal morphology¹⁵

Causative paradigm 1a:					
	I	II	III	IV	
OT	<i>gaŋ</i>	–	–	–	‘be full (of), get filled up (with)’
	<i>h-kheŋs</i>	<i>kheŋs</i>	–	–	‘be full (of), get filled up (with)’
	<i>h-g-e-ŋ-s</i>	<i>b-k-aŋ</i>	<i>d-gaŋ</i>	<i>kh-o-ŋ</i>	‘make full (of)’
AT	<i>/kaŋ/</i>	–		–	‘be full (of), get filled up (with)’
	II	<i>/k-w-aŋ/</i>		<i>/kh-u-ŋ/</i>	‘make full (of)’
	St.I: < OT St.II; St.II: prefix <i>b-</i> → infix <i>-w-</i> after <i>/k/</i> before <i>/a/</i> or <i>/i/</i> (< <i>as</i>)				
OT stem II: consonant <i>k</i> & vowel <i>a</i>					
LT	<i>/khaŋ/</i>	–		–	‘be full (of), get filled up (with)’
	<i>/khēŋ/~khaŋ/</i>	–		–	‘be full (of), get filled up (with)’
	<i>/kēŋ/</i>	–		(I)	‘make full (of)’
	St.I: C < OT St.II; V < OT St.II or I; (St. IV other verbs also: C & V < OT St.IV)				
WT	<i>gaŋ</i>	–		–	‘be full (of), get filled up (with)’
	<i>/kaŋ/</i>	<i>/kaŋ-s/</i>		<i>/k-o-ŋ/</i>	‘make full (of)’
	St.I: C, V < OT St.II; St.II: <i>/-s/</i> < OT prdgm.2 St.II; St.IV: C < OT St.II, V < OT St.IV				
OT	<i>h-khep</i>	<i>khep-s</i>	–	–	‘be covered, spread over’
	<i>h-g-e-p-s</i>	<i>b-k-ap</i>	<i>d-gab</i>	<i>kh-o-b</i>	‘make full (of)’
AT	<i>/ŋ-g-e-p/</i>	<i>/k-w-ap/</i>		<i>/kh-o-p/</i>	‘make full (of)’
	St.II: prefix <i>b-</i> → infix <i>-w-</i> after <i>/k/</i> before <i>/a/</i> or <i>/i/</i> (< <i>as</i>)				
OT stem II: consonant <i>k</i> & vowel <i>a</i>					
LT	<i>/khēp/</i>	–		–	‘be covered, spread over’
	<i>/kēp/~kāp/</i>	–		(I)	‘make full (of)’
	St.I: C < OT St.II; V < OT St.II or I; (St. IV other verbs also: C & V < OT St.IV)				
WT	<i>/khep(s)/</i>	(I)		–	‘be covered, spread over’
	<i>/kāp/</i>	<i>/kāp-s/</i>		<i>k-o-p</i>	‘make full (of)’
	St.I: C, V < OT St.II; St.II: <i>/-s/</i> < OT prdgm.2 St.II; St.IV: C < OT St.II, V < OT St.IV				
Causative paradigm 2a:					
	I	II	III	IV	
OT	<i>h-grub</i>	<i>grub</i>	–	–	‘get accomplished’
	<i>s-grub</i>	<i>(b)-s-grub-s</i>	<i>b-s-grub</i>	<i>s-grub-s</i>	‘make accomplished’
AT	<i>n-dzəp</i>	(I)		–	‘get accomplished’
	<i>/ɣ-dzəp/</i>	(I)		(I)	‘make accomplished’
LT	<i>/ʃsup/</i>	–		–	‘get accomplished’
	<i>/ʃsup/</i>	–		(I)	‘make accomplished’
WT	<i>/drup/~/grup/</i>	–		–	‘get accomplished’

15. Prefix, consonant and vowel alternations in relation to the root form are emphasised by bold face, additionally by non-italics or italics for vowel ablaut and underlining for consonant ablaut. Shading is used for the causative verb forms.

1.3 Historical background

In the so-called Lhasa treaty, a bilingual inscription dating from the year 821/22, Chinese transcriptions of Tibetan names demonstrate an advanced simplification of syllable onsets in Old Lhasa Tibetan almost to the extent of present day LT (Laufer 1914: 77–94).¹⁶ This is all the more interesting, as speakers tend to treat personal or place names more conservatively than other items.

Baltistan and western Ladakh, although nominally part of Zhangzhung, belonged culturally to the Indo-Iranian sphere of influence, and were inhabited by a predominantly Iranian or Indo-Aryan speaking population. Zhangzhung and its western provinces were annexed by the Tibetans around 644, but they remained semi-autonomous and were only loosely integrated into the military administration of the Empire. The impact of the new administrative language was felt in the western provinces probably only at the beginning of the 8th century, when larger military units, bound to attack Gilgit, passed through Ladakh and Baltistan.¹⁷

If the population had shifted over to the then spoken language in Lhasa shortly after the annexation, this would have left a time frame of maximally 200 years for the phonological development in Old Lhasa Tibetan. But no annexation necessarily or automatically involves a language shift, even more if the annexed entity retains a certain amount of autonomy. A linguistic shift under high pressures typically takes three generations to complete. We should also allow at least one or two generations for the sound changes in Old Lhasa Tibetan to have affected the names and titles. If we count each generation with 30 years,¹⁸ this leaves a time frame of about 150 years or maximally 5 generations for the sound changes in Old Lhasa Tibetan. This would still be quite fast (especially in relation to the phonetical stability of the outer-most varieties during the next 1200 years). Such dramatic changes could no longer be described as a language internal process of erosion but would point to high pressures and thus to a very sudden change in the linguistic and ethnic composition of the population in Central Tibet. There is no necessity, however, that the changes in Old Lhasa Tibetan occurred only after the annexation of Zhangzhung.

16. This is not just because Middle Chinese had less onsets. In transcribing foreign names, clusters were typically analysed by two or more graphemes, but exactly this kind of analytical representation is missing for the word onsets in question. It is not missing for clusters in word-medial position, a position at which, under certain conditions, clusters survived to the present day.

17. This is an extremely condensed representation of a highly complex and geographically quite problematic situation. The interested reader is referred to the discussion in Zeisler (to appear b, Section 3).

18. Generation distance is defined by the average distance of all children to both of their respective parents. Thus even in times of war, hunger or epidemics, the average hardly ever goes down below 30 years.

From a sociolinguistic or political perspective, one would like to ask why the people of Ladakh and Baltistan should have adopted an obviously outdated version of Tibetan instead of the prestigious language of the political elites at the imperial court. A possible answer could be that the political elites that were instrumental in the administration of the conquered areas (and for the administration of the empire in general) spoke a different variety and possibly a more widely accepted variety, than their contemporaries at the Lhasa court.

In my opinion, however, the Tibetanisation of western Ladakh (i.e. the adoption of Tibetan as L1) took place much later. Possibly it started at the end of the 10th or at the beginning of the 11th century, when a branch of the former imperial family established themselves as kings of Western Tibet (Ngari) and consequently of Ladakh. This is also the time of the so-called second spread of Buddhism, and it is not unlikely that this religious movement encouraged the language shift. Baltistan might have been Tibetanised even later, but this process must have been completed before the conversion of the whole area to Islam in the 15th or 16th century.

2. An alternative explanation: Old Tibetan as an imported *lingua franca*

This section contains in parts some conjectures about a distant past on which we do not have reliable information. I will use italics to indicate when historical evidence is unavailable.

The problem with the time frame may be solved, if one gives up the idea that OT developed in Central Tibet, but accepts that it was introduced by military elites migrating from the north-eastern areas to the central region *and taking over power some time before the Tibetan empire came into being. A possible date could be around the 4th or 5th century, when the Tu-yü-hun and associated tribes migrated from the Chinese borderland into the Kokonor area. They might have pushed some of the so-called Qiang (Ch'iang) tribes (generally identified with the speakers of *Proto-Tibetan) from the Sino-Tibetan borderland into Central Tibet. Alternatively, the speakers of *Archaic Tibetan may have been among the associated tribes, and moved on into Central Tibet. In that case, the speakers of *Archaic Tibetan might have constituted a particular socio-economic class (e.g. traders) of mixed ethnic or linguistic background, and their language might have evolved as a trade language in the area of their former activity or more generally as an in-group language.*¹⁹

Whatever the scenario, although *Archaic Tibetan apparently originated from the Tibeto-Burman family, it must have been heavily influenced by one or several

19. 'Tribes' are not necessarily ethnically homogeneous entities. Cf. the modern Golok, i.e. 'Rebel' tribe in northeastern Tibet. As the name suggests, this tribe constituted itself as an outlaw community. The members came from various Tibetan, Mongolian, and other tribes, and chose one regional Tibetan variety as their common language, although their leader was a Mongolian (cf. Roerich 1931).

non-Tibeto-Burman languages. The above-described OT verbal morphology, especially the causative derivation pattern 1a is absolutely unique among all Tibeto-Burman languages, and the overall opaqueness and the hardly even half-developed paradigms indicate that whatever the original verbal morphology looked like, it must have been reorganised under the pressure of external influences.

*Contact with the indigenous populations (especially speakers of Tibeto-Burman, i.e. West Himalayan languages, but also of Indo-Iranian languages, Burushaski and perhaps other languages) might have set off the process of phonological simplification in Central Tibet.*²⁰

It is clear that speakers of an East Tibetan variety were central to the administration of the empire, *most likely because they were either instrumental in the conquests in Central Asia, or controlled the Central Asian trade*. They left their dialectal imprint on the language of the early Tibetan documents (e.g. the OT palatalisation of the labial nasal in front of the palatal vowels *i* and *e*, as in OT *mye*, CT *me* ‘fire’ is due to an innovation that affected only the eastern varieties, likewise the palatalisation of the cluster velar plus alveolar trill as in the word CT *ralgri*, OT *ra(l)gyi* ‘sword’, is an innovation affecting only the Amdo varieties). One may thus safely say that *Old East Tibetan was the administrative and military *lingua franca* of the empire.

One has to differentiate, however, between OT as a *written* language, used only by elites, and OT as a *spoken* language, used by the common people. The written language became quickly petrified and reflects dialectal or diachronic variation only in rare cases. In particular, grammarians and scholarly revisers strove to standardise CT spellings more and more (as can be seen in repeated re-editions of the same work). These continuous efforts can be taken as indirect evidence for the growing distance between the spoken and the written language. Whatever subtle differences between OT and CT are attested, they all show a certain tendency towards phonetic simplification, cf.:

OT *-s-ts* > CT *-s* (~ *-s-ts* > WT *s*): OT *-la(s)stsogs* > CT *-lasogs* ‘etc.’;
 OT *gtsand* > CT *gsan* ‘shall listen’; OT, CT *stsol*, *btsal* > WT */sal/* ‘give (hon)’.

Although the spoken *lingua franca* was never documented, its development can be reconstructed in part from the evidence found in the WT varieties.

20. Given the fact that the linguistic contact with the Aryan languages in West Tibet did not lead to such a radical simplification of the clusters, language contact between languages of different affiliation cannot be the sole reason for this process. I would thus hypothesise that the process was triggered by the contact of two rather closely related languages, such as West Himalayish and Archaic Tibetan. The medieval West Himalayish language Zhangzhung, and Old Tibetan seem to have many words in common, differing sometimes only in the prefixes. During cross-language interactions, the insecurity of the speakers about which prefix to use might have led to neutralisation, and eventual loss of these prefixes. Alternatively, one may take recourse to a large-scale immigration of sinicised people, without, however, being able to explain why the area of passage, East Tibet, was not much affected.

3. The development of West Tibetan²¹

In the case of Baltistan and the western parts of Ladakh (where the lexico-phonetically conservative dialects of the Shamskat group are spoken), there cannot be any doubt that there was a situation of language contact between Indo-Iranian (and possibly other languages) and Tibetan, and the subsequent development of modern WT is best explained as a process of interaction with, and final adaptation of, the spoken OT *lingua franca*.

As one might have realised from the above charts, the OT/CT verbal morphology is completely opaque for non-native speakers, and the first thing a second language learner would happen to do is to over-generalise the few regularities that seem to be obvious.

Generally, one might expect that learners pick up a verbal form which is either least marked, such as the bare root or an infinitive, or which is most common in situations of social interaction. Since the OT verb roots were opaque, and, by consequence, also no true infinitive was available, the most common form should have been stem I or its verbal noun, expressing simultaneity and, by an implicature, present time reference. As a matter of fact, this is not the chosen form in the case of causative verbs, but there are various reasons for picking up stem II for causative verbs:

- The majority of OT verbs do not show vowel or consonant alternation; the reason for an alternation as in the causative paradigm 1a is not intelligible.
- Almost all the verbs that show vowel alternation between stems I and II/III, have vowel *a* in stem II.
- All verbs that show consonant alternation have a non-aspirated voiceless consonant in stem II.
- Most of the causative verbs have a *b*- prefix in stem II, many also in stem III.
- The [±causative] distinction is most obvious in stem II, while it is somewhat blurred in stem I.
- Verbal nouns of stem I and III of causative verbs display a kind of diathesis (agent vs. patient orientation), while stem II is neutral.

Therefore, if one does not know which form to use, stem II would be at least formally correct, even though the temporal deixis might be wrong.

Evidence for the neutralisation of vowel and consonant alternations in the direction of stem II was already given for WT as well as CtrT (cf. Table 2, p. 10 above). The

21. The WT dialects can be divided into at least two main groups: (a) Shamskat (the language of Lower Ladakh), including the dialects of the lower Indus region (Sham proper), western Nubra, Purik, and Baltistan and (b) Kenhat (the language of Upper Ladakh), including the upper Indus region and Zanskar. Kenhat shows a strong affinity with neighbouring Tibetan varieties in Himachal Pradesh, e.g. Spiti. The differences between the two dialect groups might reflect different linguistic or ethnic affiliations. For more details see Zeisler (to appear a).

suggested over-generalisation of the verbal *b-* prefix is certainly less evident, since both CtrT and WT have lost this prefix at the word-initial position. But prefixes are, under certain conditions, preserved in word-medial position, at morpheme boundaries, particularly in compounds. This feature has been observed in all Tibetan varieties (including 9th century Old Lhasa Tibetan), cf. e.g. my favourite example from eastern Ladakhi (Kenhat):

/burfe **gop**-tri/ < *sburpaḥi mgo-bkrus* ‘beetles’ head-washing’ (said jokingly of a rainy day, when the beetles come out of the earth)²²

Another quite unique and rather accidental finding from a village of bi-lingual Shina and Purik speakers at the border with Pakistan indicates that the *b-* prefix was not only generalised for stems I and II, but also for stem IV, before it was eventually lost. As the *b-* prefix leads to deaspiration, this explains why stem IV does not show aspiration in West Tibetan. It is interesting to note that the *b-* prefix showed up only in one single verb, only in the negated form (thus at a morpheme boundary),²³ and that the prefix form is already alternating with the ‘regular’ prefixless form:

/map-sot!/ < *ma-bsod* ‘don’t kill’ from the verb /sat, sats, sot/ ‘kill’; cf. CT *ma-gsod* (i.e. negation marker plus stem I; OT also with stem II or III) from the CT/OT verb *gsod, bsad, gsad, sod* ‘kill’

Furthermore, the former grammatical *b-* prefix has lexicalised in some 20 verbs in Balti, cf. e.g. Khapulu /ptul/ ‘please, make happy’ (Sprigg 2002) ~ Skardo /phtul/ ‘calm someone, make agree’ (Bielmeier, in preparation) < CT *ḥdul, btul (thul), gdul, thul* ‘subdue, discipline’.

It is thus possible to reconstruct the development of the West Tibetan verbal system as follows: as stem II of causative verbs became something like a semantic base form, the new root or infinitive, its prefix was exported to stems I and IV, either leading automatically to de-aspiration and devoicing of the corresponding initials, or leaving this assimilation to a subsequent stage.²⁴ While Balti vowel assimilations always follow the same direction as consonant assimilations, in Shamskat, the assimilation of vowel alternations must have happened independently and at times in different directions as the following two verbs ‘do’ and ‘make go out’ show.

Although the direction of change of vowels and consonants is different (and indeed opposite) for the two verbs, the trigger was apparently in both cases the behaviour of the initial clusters in the context of different vowels: The palatal vowels *i* and

22. More examples can be found in Zeisler (2005) and Zeisler (in preparation).

23. It may be noted that the prohibitive, which has stem I in all Tibetan varieties, was regularised with stem IV in the two western-most Balti and Purik varieties.

24. Compounds like /zap-thuŋ/ *za-bthuŋ* ‘eating and drinking’ or /šap-tshoŋ/ *ša-btshoŋ* ‘butcher, meat seller’ show that the deaspiration of stem I did not follow automatically.

Table 3. Asymmetric assimilation of vowels and consonants

Stem	'Root'	I	II	IV	Meaning
OT/CT	*(b)ya	<i>byed</i> (< <i>bya</i> + <i>d</i>)	<i>byas</i>	<i>byos</i>	'do, make, perform'
Balti	< II < IV	<i>bya</i>	<i>byas</i>	<i>byos</i>	
Shamskat ²⁵		* <i>be(t)</i> < * <i>byet</i>	* <i>byas</i> → <i>bas</i>	* <i>byos</i> → <i>bos</i> (→ <i>bas</i>)	
	C I				
	V II	→ <i>ba</i>			
OT/CT	* <i>byuŋ</i>	<i>hbyind</i> (< <i>h</i> + <i>byuŋ</i> + <i>d</i>)	<i>phyuŋ</i> (< <i>b</i> + <i>pyuŋ</i>)	<i>phyuŋ</i>	'make go out'
Balti	< II	<i>phyuŋ</i>	<i>phyuŋs</i>	<i>phyuŋ</i>	
Shamskat		* <i>biŋ</i> < * <i>byiŋ</i>	* <i>phyuŋs</i> → <i>phiŋs</i>	* <i>phyuŋ</i> → <i>phiŋ</i>	
	V I				
	C II	→ <i>phiŋ</i>			

e lead to a neutralisation of the palatal post-radical in all WT dialects. In the Kenhat dialects this leads to an even more 'intolerable' differentiation of the stem initials, because the clusters of labial radical plus palatal post-radical became palatal affricates when followed by the non-palatal vowels *a*, *u*, and *o*. The verb stems would thus have been */*be(t)*/ vs. */*cas*/ and */*biŋ*/ vs. */*cuŋs*/. As a consequence, both verbs (as well as the intransitive counterpart of the second one) were lost and substituted in the Kenhat dialects by /*ce*/ (Zanskar /*co*, *coe*/) 'do' < OT/CT *hcho*, *bco*, *bco*, *chos* 'construct' and /*tōn*/ 'make go out' < OT/CT *hdon*, *btōn*, *gdon*, *thon*. The mixed Leh dialect likewise substituted the forms /*co*, *cos*/ for the verb 'do' but retained the forms /*phiŋ*, *phiŋs*/ for the verb 'make go out'.

It seems thus that at least in Ladakh vowel assimilation towards stem I started earlier than consonant assimilation, but when consonant assimilation towards stem II became more prominent, vowel assimilation towards stem I was given up in favour of assimilation towards stem II.

4. The Old Tibetan *lingua franca* and the development of Modern Tibetan

The CtrT verbal morphology shows almost the same development as WT: reduction of vocalic and consonantal alternations, and over-generalisation of the *b*- prefix (as can be seen in compounds, cf. Shirai 1999). It follows that this should have had the same motivation as in WT, namely to get rid of an opaque complexity, alien to the original linguistic substrate.

25. The verb /*ba*, *bas*, (*bos*)/ is productive only in the Purik dialects; in the western Sham dialects it is restricted to particular phrases. As a light verb it is replaced by /*co*, *cos*/, obviously due to the influence of the Leh dialect.

Of course, both processes might be seen as independent developments, merely canalised in the same direction by the available options, which, rather accidentally, were the same. However, if one compares the CtrT and the WT dialects in more detail, one can observe that the CtrT dialects retained more traces of the OT system than WT: a few verbs are left showing alternations between stem I and II, cf. LT /cɛ̃, cǎ̃, cǒ̃/ CT *byed, byas, byos* ‘do’, Dingri: /t̃t̃ ɿ̃ (t̃t̃ t-), t̃ā̃: (t̃āt-)/ CT *sprod, sprad* ‘give’ (Herrmann 1989: 60, cf. also p. 29), Shigatse: /tɔ̃, tĩ/ CT *sdod, bsdad* ‘sit, stay’; /t̃ɕ̃, t̃ɕ̃ĩ/ *sprod, sprad* ‘give’; /cɔ̃, cĩ/ CT *šod, bšad* ‘speak’ (Haller 2000: 80). In WT these alternations are only reflected in nouns derived from the original stem I (cf. Zeisler 2004: 876–877). One can further observe that Ladakhi has a few more verbs showing assimilation or partial assimilation towards stem I than Balti (cf. the above case of the verbs ‘do’ and ‘make go out’).

As mentioned before, the Tibetanisation, i.e. the shift within, or the abandonment of, a bilingual or multilingual situation in favour of Tibetan as L1 may have taken place gradually, and it seems to have started in western Ladakh as late as the end of the 10th or the beginning of the 11th century, progressing slowly to the western border (a few villages in the farthest west of Ladakh are still bilingual or rather multilingual with Shina and a Purik variety as L2 or L1). The difference in stem form assimilation between Balti and Shamskat (described in the last section) and the assimilation of the prohibitive to stem IV in Balti and Purik (mentioned in note 23) indicate that the language shift took place even later in Baltistan and certain areas of Purik. I would thus argue that the observable differences between the WT dialects as well as between WT and CtrT reflect an ongoing process of morphological simplification in the donor language, the spoken OT *lingua franca*.

But while morphological simplification was a process within the OT *lingua franca*, phonological simplification initially affected only the CtrT varieties (but may have been caused by an earlier pidginisation/creolisation process). When CtrT became dominant as the intra-Tibetan *lingua franca*, its simplified phonology might have triggered or reinforced similar processes in the neighbouring varieties.

The reduction in morphological complexity in the central and particularly in the western varieties, however, is the result of the long-lasting linguistic contact of various peoples, speaking Indo-Iranian and West Himalayan languages, among others, with a dominant and prestigious language used for trade, administration, and religion. From the viewpoint of Indo-Iranian, the adaptation of Tibetan results in a certain loss of paradigmatic complexity (nominal and verbal inflection), while from the viewpoint of West Himalayan, the loss of complexity in some parts might have been balanced by the increase of complexity in other parts. But given that the modern varieties are “truly Tibetan”, in so far as the greatest part of the lexicon and the grammatical structure can be linked to OT or CT, one cannot avoid seeing the development as a process of overall simplification from the viewpoint of Old (East) Tibetan.

I would further argue that the development of the modern CtrT and WT varieties was highly complex, involving not just one single donor language and one single receiving language. Moreover, different influences are involved in different registers,

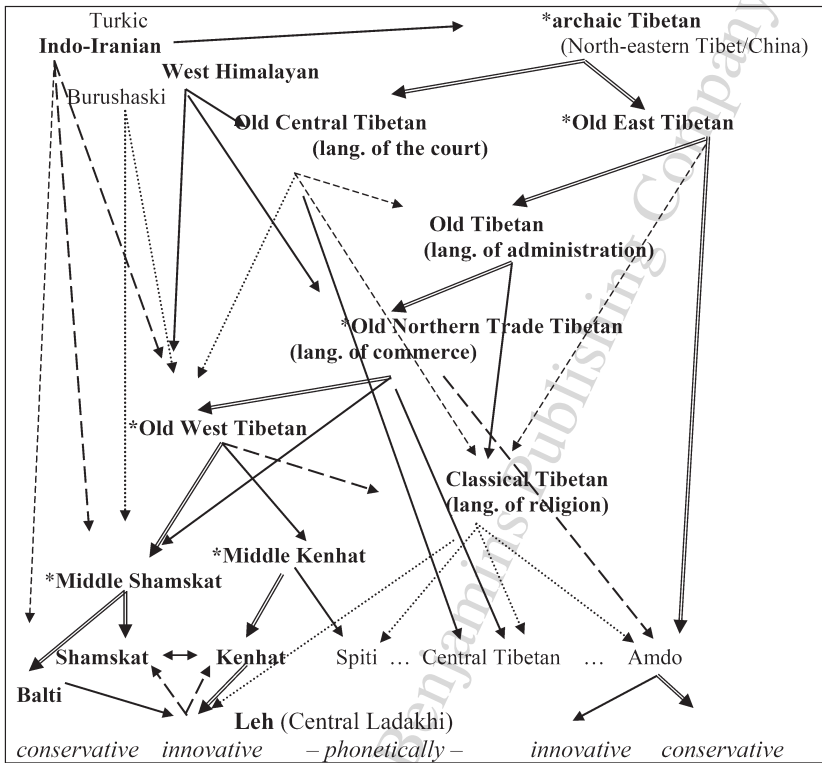


Figure 3. A network of linguistic influences

and influences vary over time (in their intensity as well as in their direction). The relationship between the varieties would thus correspond to a network, as tentatively modelled in Figure 3, rather than to a genealogical tree.

I do not want to claim that language contact in general or, more particularly, the formation of a *lingua franca* necessarily leads to simplification or only to simplification, despite such developments in *the* Lingua Franca itself. The extent of simplification might not only depend on the structures of the donor and recipient languages, but also on sociolinguistic factors. The high prestige of OT as a language of religion, as well as a certain pride in participating in the cultural heritage of the Tibetan Empire together with normative pressures, might have prevented a further break down. It is perhaps noteworthy in this context that none of the modern varieties was able to develop into a literary language, because CT is still seen as the only standard for writing. Modern Literary Tibetan, as used in Lhasa or in exile is more or less only a lexically expanded version of CT.

Furthermore, the loss of morphological complexity was counterbalanced in all varieties by the systematisation of periphrastic expressions with the help of specific morphemes and verbal auxiliaries. In the case of verbs this also leads to a tremendous

increase of length in the verb syntagm. With only one exception, the auxiliaries and morphemes had already been in use in Old Tibetan (an indication that the process of morphological simplification must have started earlier), but were not grammaticalised, except for the 'progressive' forms. The modern varieties (including Amdo Tibetan) have developed these periphrastic expressions into new paradigms. I would take this paradigmatisation, in contrast to Meyerhoff's mathematical approach, as a kind of complexification on a 'higher' (or, if you prefer: 'deeper') level, comparable to the introduction of an administrative layer. The new paradigms, however, must have developed independently in the various dialect groups, with the effect that in several cases different auxiliaries are chosen for the same function or identical constructions are used for different functions. It is thus possible that the main process of paradigmatisation started only after the OT *lingua franca* became extinct.

Not all of the changes induced through linguistic contact are instances of simplification or complexification. This can be observed in the Tibetan case system. Here it seems that a few additional morphemes were introduced into early Tibetan, while the modern varieties have dropped (or never accepted) some of the resulting functional doublets (cf. Zeisler to appear a, Section 8). Apart from this, the West Tibetan dialect groups show a fundamentally different system of case markers: the regular experiencer-subject construction for 'transitive' non-agentive verbs is quite probably inherited from the Indo-Aryan languages, while the use of the comitative case for instruments and the Kenhat use of the genitive case for agents (both instead of the instrumental case) might well be inherited either from original *Proto-Tibetan or from an indigenous Tibeto-Burman language.

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