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Historical aspects of Yakut (Saxa) phonology

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Yakut, the language of the Saxa people of central and northeastern Siberia, is one of the most divergent members of the Turkic family. One of the characteristic features of Yakut historical phonology is the multiplicity of sources for [s] and [t]. In addition, assimilation processes are developed more extensively than in any other Turkic language: Both in its pervasive [round] Harmony and its unparalleled consonant assimilation. This study deals with various contact phenomena (areal and substratal) which have also affected the historical development of Yakut, its dialects and the closely related language Dolgan (e.g. nasalization, "secondary" vowels / diphthongs, Velar-Height Harmony).

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0. Introduction

The present study focuses on historical developments in the phonology of Yakut—the language of the Saxa people of central and northeastern Siberia.* Various aspects of Yakut phonology reflect archaisms, while others naturally constitute innovations. For example, in addition to preserving some of the so-called "primary" long vowels, Yakut has innovated a series of diphthongs and secondary long vowels. The progressive and regressive assimilation of consonantal features ("consonant harmony") seen in virtually all modern Turkic languages is most pro-

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nounced in Yakut. Also, vowel harmony is more extensively developed than in any other Turkic language except Kirghiz.

1. Yakut vocalism

According to Korkina et al. (1982), Yakut possesses the following inventory of vocalic phonemes:

(1)		Short	Long	Diphthong		
						[-round]
	[+high]	*i* *ï*	*ii* *ïï*			
				iä	*ïa*	
		ä[1] *a*	*ää* *aa*			
						[+round]
	[+high]	*ü* *u*	*üü* *uu*			
				üö	*uo*	
		ö *o*	*öö* *oo*			

Poppe (1959) states that most Common Turkic (CT[2]) short vowels were maintained in Yakut (2); the only exception is CT **e* > Yakut *i*. However, as is characteristic of the Turkic family as a whole (Tenišev 1984: 52-65), one encounters sporadic correspondences between a given vowel in Yakut and a different vowel in the majority of Turkic languages, e.g. *ïnax* 'cow' vs. *inek* ~ *ingek* or *min* 'soup, boullion' vs. Khakas / Tuvan / Mrass Shor *mün* < **bün* but Kondom Shor *min* (cf. Clauson 1972: 347; Čispijakova 1978: 69).

(2) Some words in Yakut that maintained Common Turkic vocalism

at 'horse'	*käl-* 'come'	*kïs* 'winter'	*kihi* 'evening'
ot 'grass'	*kör-* 'see'	*uhun* 'long'	*kün* 'day / sun'

[1] Although phonetically more like *ɛ* or *e*, we represent this as *ä* in order to reserve **e* for the fifth front vowel in Common Turkic forms.

[2] The author's own reconstructions based on a comparison of modern Turkic languages with the Old Turkic sources and the traditional handbooks / Turkological materials, e.g. Räsänen (1949), Tenišev (1984), etc. The following abbreviations are used: CT = Common Turkic, Cl. = Clauson (1972), *I* harmonizing [+high] vowel, *A* harmonizing [-high] vowel. Note a single asterix (*) represents the traditional reconstructed form, double asterix (**) means an underlying or expected form in Yakut.

In a few examples, CT **ä* seems to have merged with **e*, i.e. > Yakut *i*, *ilii* < **älig* 'hand', *tirit-* 'sweat' < **tär*; in both of these examples, however, assimilation to the following vowel may be the cause of the **ä* > **e* > *i* change.

Commonly, one finds Yakut *ï* for CT **a* (3).

(3) *ïl-* 'take' < **al-* *ïy* 'moon' < **a(a)y*
ït- 'shoot' < **at-* *kïnat* 'wing' < **qanat* (> ***xanat*)

Yakut is one of the few Turkic languages to preserve the "primary" long vowels, see Räsänen (1949: 64-73).[3] However, only Common Turkic [+high] long vowels and **aa* are preserved as such in Yakut roots; Common Turkic [-high] long vowels (except **aa*) developed into diphthongs. Note that CT **ää* > Yakut *iä*.

(4) *aat* 'name' < **aat* *tuus* 'salt' < **tuuz*
süüs 'hundred' < **yüüz* *ïït-* 'release, send' < **ïïð-*
biir 'one' < **biir* *kiäŋ* 'wide' < **kääŋ*
biär- 'give' < **bäär-* *suox* 'not' < **yooq*
uon 'ten' < **oon* *küöx* 'blue' < **köök*
üöl 'moist' < **ööl*

There are numerous correspondences between long vowels and diphthongs in Yakut roots and similar vocalism in cognate forms in other Turkic languages, most notably in Turkmen and Khalaj, as well as various other Turkic languages, e.g. Chulym Turkic *(kööl* 'lake' = Turkmen *kööl*, Yakut *küöl*), Tofalar (*beyš* 'five' = Turkmen *bääš*, Yakut *biäs*), Kumandy *(čooq* 'not' = Turkmen *yooq*, Yakut *suox*), or Gagauz dia-

[3] While a discussion of the problems surrounding the various types of correspondences in vowel length throughout the modern and ancient Turkic languages would require a monograph-length study in its own right, a few salient points should be adduced. As is well known among Turkologists, in a number of words, there is no such correspondence: For example Yakut *tüös* 'breast' vs. Turkmen *döš*, Yakut *ïy* 'moon' vs. Turkmen *aay* (but *ayla-* 'rotate') or Yakut *ït*, Turkmen *it*, Khalaj *ïït* 'dog' or Yakut *bas*, Turkmen *baš*, Khalaj *baaš* (cf. Chulym Turkic *paaš*). As an anonymous reader related, dialectal variations in these languages show agreement on several of these forms, for example, variants of the Khalaj word for 'head' correspond more directly to the Yakut word.

lects (*qaaz* 'goose' = Turkmen *qaaz*, Yakut *xaas*), see Tenišev (1984: 23-44).

Note that phonemic long vowels and diphthongs in Yakut arose as the result of either an inheritance from Common Turkic long vowels (e.g. *at* 'horse' < **at* vs. *aat* 'name' < **aat*) or of various consonantal changes in the history of the language, creating minimal pairs, e.g. the neutralization of **č* and **š* to Yakut *s*: *xas* 'how much' < **qač* vs. *xaas* 'goose' < **qaaz*.

Diphthongs were also formed through loss of certain consonants (generally [-coronal] [+voice] ones) during the development of Yakut. The Common Turkic sequences **aaγ*, **aγï* and **aab* give Yakut *ïa*;[4] similarly, **ägV* (and **äb*)[5] give Yakut *iä*.

(5) *tïa* 'forest' < **taaγ* — *sïa* 'fat' < **yaaγ*
ïarï 'sick' < **aγrïγ* — *kïa* 'tinder' < **qaab*
bïar 'liver' < **baγïr* — *ïas* 'resin' < **saγïz*
tiär- 'whirl' < **tägir-* — *siän* 'grandchild; descendant' < **yägän*

Common Turkic **oγu*, **obu*, and **aγu* give Yakut *uo*, while **uγ(u)* gives Yakut *uu*.

(6) *uor-* 'steal' < **oγur-* — *buos* 'pregnant' < **boγuz*
suon 'thick' < **yoγan* — *suorat* 'yoghurt' < **yoγurat*
uor 'anger' < **aγur* — *uos* 'lip' < (**aγuz* ~) **aγïz* 'mouth'[6]

[4] Note however *satï* 'walking, pedestrian' < **yaðaγ* instead of the expected reflex ***satïa*.

[5] Almost all words with the sequence **äb/v* have not been preserved in Yakut; at least one example does show the expected development to the diphthong: *iäy-* 'be in a friendly mood / favorably disposed towards someone' < ***iä-* < **säv-* / *säb-* 'love, like' (cf. Turkish *sevmek*), but a short vowel is likely in the proto-language with this root, cf. Clauson (1972: 784).

[6] The rounding of the **γ* in this Yakut word suggests a possible Central Turkic / "Kipchakoid" origin, cf. the reflexes Khakas / Tuvan *aas* vs. S. Altay *uus*, Kirghiz *oos*. Perhaps there was dialectal variation in Common Turkic in which /γ/ was phonetically **γʷ* for various speakers. For a typological parallel to unmotivated labialization of velars before unrounded vowels, cf. dialects of Lak (Murkelinskij 1971, Xajdakov 1966).

tuorax 'pine cone' < **toburγaq*
uu 'water' < **sub* ~ **suγ* *uruu* 'kin(ship)' < **uruγ*
uus 'stalk; stock' < **uγuz* *suun* 'wash self' < **yuγun*

Both **ig* and **eg* > *ii*, the latter surfacing as *-iy* in Yakut verbal stems;[7] similarly **ïγ* > *ïï*, except in some originally monosyllabic words, where **ïγ* surfaces as Yakut *ii*.[8]

(7) *bii* 'elder' < **beg* *tiy-* 'accuse' < **teg-*
ilii 'hand' < **älig* *tillii* 'life' < **tirlig*
silii 'marrow' < **yilig* *siik* 'damp' < **čigik*
arïï 'butter' < **sarïγ* 'yellow' *kïtïï* 'shore; banks' < **qïðïγ*
kii 'dry cowdung' < **qïγ*

Finally, a long vowel or diphthong may reflect a stressed vowel in a Russian loan, e.g. *ürüümke* 'wine glass' (< *rjumka*) or *biriämä* 'time' (< *vremja*).

In the course of stem-derivation, both long vowels and diphthongs in Yakut alternate with corresponding short vowels. When certain suffixes of the *-VC* shape are added to stems ending in a diphthong, this is realized as the corresponding short [-high] vowel.

(8) *tuol* 'full' *tolor-* 'fill'
küöx 'blue' *köγör-* 'make blue'

In polysyllabic stems ending in either a diphthong or long vowel, the vowel is realized as the corresponding short vowel when preceding certain suffixes.

(9) *anaa-* > *anat-* 'make decide'
äkkiriä > *äkkirät-* 'make jump'
xoluo- > *xolot-* 'make compare'

[7] Thanks to an anonymous reviewer for clarifying this. As mentioned below, all verbal stems that are etymologically vowel-final add *-y-* to form their basic stem in Yakut.

[8] This could of course be simply an isogloss of the *ïnax* ~ *inek* type addressed above.

Note the forms *tuox* 'what' vs. *tugu* 'what.ACC'[9] where the diphthong alternates with a [+high] vowel (cf. similar phenomena in Dolgan and "Tungusoid" northern Yakut dialects, discussed in 3. below).

Stress in Yakut is (apart from certain lexical exceptions and univerbated compounds) regularly word-final, as in many other Turkic languages; secondary stress is found in longer words on root syllables, e.g. *àttarbïtïgár* or *oγòlorbutugár*. Rarely, stress in Yakut distinguishes lexical items, e.g. *úonna* 'and' vs. *uonná* 'ten.PARTITIVE' or *áata* 'although, if, since' vs. *aatá* 'his name'. Certain univerbated compounds exhibit medial (or initial) stress, for example *itíirdik* 'therefore' < **iti qurduq*, *bihíkki* 'we two' < **biz ikki*, or *úonna* 'and' < **ol kenne*. In certain northern "Tungusoid" dialects of Yakut (e.g. Esey), stress is often found on the initial (or second) syllable of words, patterning with Evenki root-stress (Voronkin 1984: 58).

1.1. Vowel harmony

As in virtually all Turkic languages except "Iranicized" (*sart*) dialects of Uzbek and various Uyghur dialects and Eastern Turkic languages, [back] (or palatal) Harmony[10] is consistent throughout a Yakut word of native Turkic origin: All subsequent vowels in a word harmonize with the initial root vowel's specification for the feature [back].[11]

(10)	*itinniktärinän*	'with these ones here'	
	[back]		[ ] > [-back]
	manniktarïnan	'with those ones there'	
	[+back]		

[9] An anonymous reviewer pointed out the alternate form *tuoγu*.

[10] Note that there is some evidence that [back] Harmony in Old Turkic was not completely phonologized (cf. Tekin 1968: 58), e.g. such forms as *subin* 'water.POSS.ACC' (Bilge Kaγan E 35) or *yoγči* (Kül Tegin E 4).

[11] Throughout the Turkic languages including Yakut, in recent loans from Russian or loans from Islamic sources that lack internal vowel harmony (i.e. Arabo-Persian loans, which of course are mostly lacking in Yakut), the value of the feature [back] associated with the last vowel of the stem is generally the trigger for subsequent [back] Harmony spread. Naturally, loans are assimilated to Turkic phonology in a language-specific fashion.

[round] Harmony (commonly known as "labial harmony" and "labial attraction" in Turkological studies) has become more developed in Yakut than in most neighboring Turkic languages to the south and west. It is fairly clear that Old Turkic [round] Harmony was morphologically conditioned, that is, specific morphemes underwent it, while other specific morphemes that met its (allegedly phonological) structural description systematically did not, for example *ölsikiŋ* 'die-NECESSITATIVE-2' (Kül Tegin S 6) or *tilküniŋ* 'vixen.GENITIVE' (Hungry Tigress l. 53) vs. *küčüg* 'power-ACCUSATIVE' (Kül Tegin W 1); such a distribution may have been maintained in part in various dialects of the South Siberian Turkic languages.[12] In Yakut, [round] Harmony is not restricted morphemically; a [-high] vowel spreads [+round] to any subsequent vowel, while a [+high] vowel may spread [+round] only to following [+high] vowels, and never to [-high] ones. Thus we find *O-O*, *O-U*, *U-U*, but *U-A*, see example 11.[13]

Diphthongs behave as high vowels with respect to [round] Harmony (but importantly not in every phonological process in Yakut, cf. the discussion of Velar Height Harmony in 2.3. and 2.5. below). Typologically, the Yakut [round] Harmony system is most similar to that of Kirghiz[14] and various South Altay dialects (and other "Kipchakoid" Turkic languages like Kazakh, Karakalpak, Nogay, etc.).[15]

[12] Where one finds such variants as Khakas *suɣnïŋ* 'water.GENITIVE' Kumandy *künniŋ* ~ *kündiŋ* 'day.GENITIVE', Shor *puluttïŋ* 'cloud.GENITIVE' or Baraba Tatar *qulnïŋ* 'slave.GENITIVE'.

[13] I. e., underspecified, harmonizing sounds: *U-O* = *u-o* and *ü-ö*, underspecified for [back].

[14] Kirghiz (as well as dialects of Kazakh and Karakalpak) differs from Yakut in allowing [+round] to spread from *ü* to a following [-high] vowel; thus, one finds *ü-ö*, but *u-a* in certain Kirghiz dialects.

[15] Mongolian influence is possible in all these languages as well as a source for, or support of (or both, cf. Thomason & Kaufman 1988), the innovation of [+round] spread from [-high] vowels; this kind of [round] Harmony was lacking in Old Turkic, except in some Brahmi-script texts, where one also encounters an occasional alternation of *u* ~ *o*, e.g. *olorop* < **olurup*. Note also such Uyghur-script variants as *bölük* ~ *bölök* 'piece' (Clauson 1972: 339).

(11)	*körbötöxtörö* [+rd]	'they did not see'	*uolbut* [+rd]	'our son'
	körbüttärä [+rd] [rd]	'they saw'	*küölbüt* [+rd]	'our lake'
	turbuppun [+rd]	'I (app.) stood'	*uollara* [+rd] [rd]	'their son'
	tüspükkün [+rd]	'you (app.) fell'	*küöllärä* [+rd] [rd]	'their lake'
			Default:	[rd] > [-rd]

2. Yakut consonantism

Numerous changes have occurred during the historical development of the Yakut sound system from the Common Turkic prototype. CT **-ð(-)*, **-š* and **-z* are lacking, realized as either [t] or [s]. Sonorants are not overly common word-initially in Yakut; most of the existing sonorant-initial words are clearly loans or result from a distant nasal assimilation (see below). According to modern investigators of Yakut, the following (non-loan)[16] consonantal inventory is attested:

(12)	*p*	*t*	*č*		*k*	
	b	*d*	*ǰ*		*g*	
	m	*n*	*ñ, Y* [17]		*ŋ*	
		s			*x*	*h*
					γ	
		r, l	*y*			

Many Yakut consonantal sounds may appear geminated; medially, *-pp-* and *-ññ-*[18] never appear in a simplex (non-geminated) form.

[16] In Russian loanwords of recent origin, a number of sounds found in Russian but originally lacking in Yakut have entered the language, including *š*, *ž*, *v*, *c*, *z*; old Russian loans have been assimilated to Yakut phonology, sometimes with the result of completely obscuring their original form, e.g. *kiriehile* < *kresla* '(arm) chair' or *xahïat* < *gazeta* 'newspaper'. In the modern era, one finds a scale of pronunciations ranging from fairly assimilated to Yakut-type phonology to true code-switched utterances using actual Russian (see Anderson (1995) for a discussion).

[17] A nasalized *y*.

2.1. Yakut labial sounds

Yakut possesses three labial consonants, [p], [b], and [m]. Of these, only [b] and [m] are found word-initially in Yakut words of Turkic origin; [p-] is mainly limited to recent Russian loans and onomatopoeia, while [-p] is commonly encountered.[19]

(13) *baay* 'richness; possessions' — *balïk* 'fish'
bölöx 'group; herd' < **böläk*[20] — *ämis* 'fat' < **sämiz*
silim 'glue' < **yelim* — *sap-* 'close; cover' < **yap-*
kiäp 'form' < (**kääp* <) **kiip* 'mold'

As in some South Siberian and various other Turkic languages including Old Turkic sources,[21] Common Turkic intial **b-* usually assimilated to the nasality of a following nasal consonant; in a few instances, [m-] is the reflex for CT **b-* in a word lacking a nasal sound, suggesting a hypercorrective, lexicalized diffusion of this change (e.g. *muus*).

(14)	Yakut	Old Turkic	Gloss
	min	*ben* (Clauson: 346)	'I'
	manï	*bunï* (Clauson: 292)	'this.ACCUSATIVE'
	murun	*burun* (Clauson: 366)	'nose'
	muŋ	*buŋ* (Clauson : 346)	'sorrow'

[18] In some Yakut dialects *Y ~ ñ* word-internally, e.g. *aYax ~ añax* 'mouth'; thus, *-ñ-* would appear medially in those dialects in a simplex (i.e. non-geminated) form.

[19] As is well known, **p-* was lacking initially in Common Turkic; the vexing issue of whether Khalaj *h-* corresponding to possible Altaic **p-* suggests a (pre-)Proto-Turkic **p-* (cf. Doerfer 1981, 1982, etc.) is beyond the scope of this paper.

[20] An anonymous reviewer suggested **bööläk*, based on the Turkmen correspondences and the development of **-k > -x* in Yakut. Rather than having a rounding of ***ä* after *ü* as is found for example in Kirghiz, it is possible that the Yakut form comes from a variant like **bölök*. While this stem has an unrounded [-high] vowel in Turkmen and other older and modern sources, this was commonly *bölük* in older (esp. Uyghur) sources, with variants attested even as *bölök* itself (Clauson 1972: 339).

[21] For example Khakas *monjïk* vs. Turkish *bonjuk* 'bead, necklace' or Bashkir *moron* 'nose'. For numerous examples of **b > m* in Old Turkic, see Clauson (1972: 346-352).

muus	*buz* (Clauson : 389)	'ice' (~ *buus*)
muos	cf. Turkish *boynuz*, 'horn', Tofalar *miŸïs*, Khakas *müüs*, **büñüz* (Clauson: 352)	

Similar hypercorrective phenomena are attested in other Siberian Turkic (Khakas *nuzurux*, cf. Yakut *suturuk* 'fist' < **yuðrïq*), and in various Old Turkic sources as well, e.g. *moz* < **bo:z* 'grey (horse)' or *mük* < **bük*, etc. (cf. Clauson 1972: 766-773).

As mentioned above, [**-p-] is lacking in Yakut; Yakut stem-final /-p/ alternates with [-b-] when vowel-initial affixes are added, e.g. *köp-* > *köptö* 'it arose' but *köben* 'arising, appearing'. Yakut [-pp-] can result from a variety of sources. At the juncture of morphemes, consonant harmony (see 2.5.) is the most common source for [-pp-]. Word-internally, various clusters in certain lexical items have been assimilated to create geminate [-pp-], e.g. *xappax* 'roof' vs. Khakas *xaxpax* ~ *xapxax*, Tuvan / Altay *qaqpaq*. Similarly, among various modern Yakut dialects, clusters may correspond to geminates, for example *bïïppax* ~ *bïïrpax* 'cow-milk kumiss'.

2.2. Dental / alveolar sounds in Yakut

The dento-alveolar sounds of Yakut are [t], [d], [n], [s], [l], and [r]. Yakut [r] is common word-finally, but lacking in word-initial position, while [l] and [n] are found word-initially mainly in loanwords. In non-initial position all of these sounds are unaltered reflexes of Common Turkic, which likewise similarly lacked **l*, **n*, and **r* in word-initial position. In various Yakut dialects, there is a tendency for /r/ (and less frequently /l/) to fully assimilate to a following consonant, e.g. Amginsk *otto* 'middle' (cf. standard Yakut *orto*, Ubrjatova 1960). Note that clusters of **-nT* (any [+cor] [+ant] consonant) are realized as [-nn-], while **-nč* > Yakut /-s/ (with occassional allomorphic variation with [-ññ-], see below).

(15)

küöl 'lake' < **kööl*	*ölüü* 'death' < **ölüg* < **ölig*
buol- 'be' < **bool*	*tüört* 'four' < **töört*
baar 'be, exist'	*bïar* 'sickness; injury' < **baγïr*

kün 'sun'	*künüü* 'jealousy' < **künii*
ilt- 'take away' < **elt-*	*börö*[22] 'wolf' < **börü* < **böri*

Yakut [d] is generally inherited from Common Turkic **d*.[23] In certain words, clusters of **-lT-* > Yakut [-l-], e.g. *balïs* 'younger sister' (but *baltïm* 'my y. sister'), cf. Old Turkic *baldïz* 'wife's y. sister', *bïlïr* 'in ancient times' cf. Old Turkic *bïldur*, Altay *bïltïr* 'last year', Khakas *piltïr* or *sulus* 'star' < **yuldïz*, cf. Altay *d'ïldïs*, Tuvan *sïldïs*, Khakas *čïltïs*; in other words (mainly of Mongol, Russian, or Evenki origin), **-ld-* is realized as [-ll-], for example *sallaat* < Russian *soldat* 'soldier'.

In word-intitial position, Common Turkic **t* remains [t-]; word-finally, Yakut *-t* may reflect CT **t*, **-š*, or **-z*. Yakut medial [-t-] comes from **-t-*, **-z-*, **-ð-* and **-s-* as well. These developments suggest that in Proto-Yakut there may have existed a **-θ(-)* sound in non-initial position; this **-θ-* results both from the devoicing of **-ð-* and the change of CT **-s-* > Proto-Yakut **-θ-* with subsequent neutralization giving modern [-t-]. In addition, [-t] is the reflex of the final sound in the **-miš* participle and the 1st plural marker **-miz*, both realized in Yakut as *-BIt* (< **-BIθ* < **-m / bIs*), as well as the reflex of **-z(-)* in several other morphemes.[24]

[22] Note the lexically restricted full assimilation of **ü* > *ö*. This seems preferable to an analysis of a "Bashqortoid" lowering from ***bürü* or something similar.

[23] In words of Mongol origin there are examples of Yakut *d-* < Mongol **d-* and **t-*, as well as Yakut *t-* < Mongol **t-* and **d-*, see Korkina et al. (1982: 78). The issue of whether the correspondences in such stems as Yakut *diä-*, Turkish *de-*, Tuvan *de-*, Kirghiz *de-* 'say' vs. Yakut *tïa*, Kirghiz *too*, reflect vestigal traces of (PT >) CT **d-* (vs. **t-*) must await further research.

[24] Including the 2PL marker *-GIt* < **-ŋiz*, or *-TIn* the third person singular imperative marker < **-zUn* ~ **-sUn*. In these morphemes, the probable route of development was CT **š*, **z* > pre-Proto-Yakut **s* > Proto-Yakut **θ* > modern Yakut *t*. Note that all other Yakut reflexes of CT **š*, **z* are *-s*, *-h-*; thus the forms realized as Yakut [t] had already shifted to **s* in the pre-Proto-Yakut dialect of Common Turkic. For a parallel development of **s* > *θ* / *t* within Turkic, note Salar *sït-* 'scoop out / ladle' < **sus-*, Bashkir *aθ* 'ermine' (< **aas*) and *uθâl* 'böse' (< **osaal*) or Turkmen *θu* 'water' *θaarï* 'yellow'; according to Räsänen (1949: 174), for some Turkmen speakers the pronunciation of *θ* is more of an affricated [t$^{\theta}$].

(16) *utax* 'thirst' < **susaq* *ayata* 'his father'< **ayasï*
aat 'name' *otut* 'thirty' < **otuz*
körbüt 'seen' < **körmiš* *körüöxpüt* 'we will see' < **-Miz*

Yakut [s] has a complex history. First, Yakut [s] virtually never reflects CT **s*[25], but rather CT **y-* and **č-* in initial position, and **-z*, **-č*, **-nč*, and **-š* in final position.[26] In at least three lexically-specified stems, there is a synchronically unmotivated alternation of [s] ~ [ñń], reflecting original **-nč-*, e.g. *as-* 'pierce' > *aññabïn* 'I pierce' < **sanč-*, *sïs-* 'slaughter, crush' > *sïññabïn* 'first person singular' < **yanč-*, or *mus-* 'gather' > *muññabïn* 'I gather' < **munč*. Common Turkic **s* > (**h-* >) *Ø* in word-initial position; while medially, as mentioned above, CT **-s* > **-θ-* > [-t-]. CT **s-* must have already weakened to pre-Yakut **h-*, before the merger of **y* > (**ǰ-*[27] >) **č* went to Yakut [s], which did not further become *Ø*.[28] In medial position, Yakut reflects synchronic [s] ~ [h] alternations (including **-s-* < **-č-*, etc.);[29] note that [-ss-] is found in medial

[25] According to Korkina et al. (1982: 98) there are a few words in Yakut that begin in [s-] which correspond to *s*-initial words in Old Turkic. However, these are considered by Yakutologists to reflect a Mongolian mediary, i.e. Old Turkic > Mongolian > Yakut, retaining *s*-consonantism. Examples include *sanaa-* 'think' and *saarï* 'horsehide skin' < **sayrï*. Note the [ǰ-] ~ [s-] alternations (reflecting a Mongol and Turkic source, respectively) mentioned below. A further possibility is that these *s*-initial forms represent residue from a lexically diffused change that never fully "completed its course".

[26] This is assuming the traditional Common Turkic reconstruction of **z* and **š*, which may or may not go back to Proto-Turkic **l_2* and **r_2*.

[27] The correspondence series *y-* : *ǰ-* : *č-* : *s-* : *ž-* etc. is well known, and one that has played a role as a diagnostic isogloss in virtually all attempts at the internal classification of the Turkic languages, e.g. Arat (1953), Baskakov (1988), Tekin (1991), Menges (1995). However, given the large number of obstruent reflexes of this among the modern Turkic languages, the disfavoring of sonorants word-initially otherwise characteristic of Proto- and Common Turkic, as well as the independently attested weaking of a voiced coronal obstruent to > *y-* in many Turkic languages (viz. the **aðaq* > *ayaq* change), it seems likely that there was at least dialectal variation in Common Turkic between **y-* and an obstruent, possibly **ǰ-* (or even conceivably **ð* < **d*, etc. as per Doerfer, Räsänen, Poppe, Ramstedt).

[28] Note however that in Dolgan, Proto-Yakut **s-* (< **y* / **č-*) > *h-* (see 3. below).

position sporadically in certain Yakut dialects, e.g. *bassar* ~ *barsar* or *bisser* ~ *bilser*, the aorist participle forms of *bar-* 'go' and *bil-* 'know'.

(17)

köγüs 'back' < **köküz* 'breast'	*ämis* 'fat' < **sämiz*
kiis 'sable' < **kiiš*	*suox* 'not' < **yooq*
küüs 'strength' < **küüč*	*kihi* 'man' < **kiši*
ahïï 'sour; bitter' < **ačïγ*	*as* 'hair' < **sač*
uhun 'long' < **uzun*	*sïs-* 'beat / crush' < **yanč-*

2.3. Palatal sounds in Yakut

Yakut possesses several palatal sounds. In addition to a voiced and voiceless affricate [č] and [ǰ], Yakut exhibits [y], [ñ], and the unusual [Y]. Phonotactically, palatal sounds are relatively restricted in Yakut: [y] and [Y] (not [ñ]) are lacking word-initially, and no palatal sounds but [-y] and [-Y] occur word-finally. [-ññ-] is the required allophone of /-ñ-/ medially, except in the dialectal or idiolectal variation with [Y] mentioned above.

Yakut [č] and [ǰ] occur mainly in words of non-Turkic origin. CT **č-* gives Yakut [s-] and **-č-* > [-h-], while **ǰ* may have been lacking in Common Turkic (except perhaps phonetically or dialectally, see note 27 above). Yakut [č] and [s] alternate systematically in one common affix, and in the pronunciation of individual speakers of various lexical items (see 2.5. below).[30] [č] sometimes appears in Russian loans for **t'*, e.g. *čätäräät* 'notebook' or *xočuol* 'cauldron'.[31] Yakut reflects [ǰ][32] for initial

[29] The [s] ~ [h] alternations in Yakut are more complex than at first glance. Generally, [s] becomes [h] in intervocalic position. However, the first of two consecutive (underlying) [s]s fails to undergo the change to [h] if a short vowel intervenes, but not if a long vowel does, e.g. ***ehehit* > *esehit*; *behis* > *besihin* 'for the fifth time'; *köhüs* > *kösüher* 'move / nomadize along w / s.o.' but *tüheehin* 'dream'. Note that the closely related Dolgan exhibits no such distribution.

[30] A phenomenon known even in Old Turkic, cf. the affixal variants *-siG* ~ *čiG* 'like' (Tekin 1968; von Gabain 1974).

[31] There are also a variety of [t]s surfacing in such Yakut *govory* as the one from the Megino-Kangalassk region, where one might expect ***č-*. These forms may reflect an areal feature of certain languages of central Siberia, whereby *č* deaffricates to a (palatalized) stop (see Anderson (forthcoming) for a more complete discussion of the deaffrication phenomenon).

[32] In idiolectal variation with [d'-] as all forms with *ǰ* in Yakut may be.

/*d-/ before (originally) front vowels and /*y-/ in loans from Russian, Mongol, and Tungus, e.g. *ǰaaŋï* 'rocky mountains; cliff' < Evenk *yaŋ*, or *ǰïala* < Russian *delo*, or *xoluoǰas* < Russian *xolodec*. Also, in a few instances, one encounters synonomous Yakut words exhibiting either an initial [s-] or [ǰ-], ostensibly reflecting a Turkic and Mongol source, respectively, for example *sïl* ~ *ǰïl* 'year'; cf. Turkish *yïl*, Tuvan *čïl*, Kirghiz *ǰïl* (cf. Korkina et al. 1982).

(18) *ǰiä* 'house' *ǰara* 'shoal, bank'
ǰon 'people' *čahï* 'clock'
čiŋ 'trampled down' *čömčöx* 'pile'

Yakut [ñ-] is seen mainly in words of non-Turkic origin; [ñ-] is attested in other Turkic languages, though mostly as the result of the regressive spread of nasalization to a word-initial obstruent; these words usually correspond to [s]-initial words in Yakut, e.g. Tofalar *ñää*, Tuba-kiži *ñaŋï* vs. Yakut *saŋa* 'new' (< **yaŋa* < **yaŋï*) or Tofalar and Tuba-kiži *ñoon* vs. Yakut *suon* 'fat' (< **yoγun*); in a few lexical items, one finds similar distant nasal assimilation in Yakut as well, e.g. *ñïma* 'means' (< **yïma*). In addition to Yakut, [Y] is attested sporadically only in Tofalar (and Tuvan dialects), e.g. Tofalar *Yarïn* 'shoulder blade'. This sound (*ñ* ~ *Y*) received a special symbol in the (Yenisei) runic inscriptions (ᛅ); most everywhere it is reflected as either [y] or *[ñ] (> [n]). Such variation is also seen in various older texts as well, e.g. *añïγ* (Irk Bitig 5, etc.) ~ *ayïγ* (Bang & von Gabain 1929: 6, 23) 'evil', 'extremely'. In Yakut, [Y] mainly occurs in intervocalic position (< **ñ*), though occasionally it is seen in final position. As mentioned above, Yakut [y] is lacking in initial position. In final position, Yakut [-y][33] may reflect CT **-y* or sometimes **-g*. In two forms [y] (not [Y]!) alternates with [ñń] in Yakut coming from truncated **-yVn* forms, for example *xooy* 'bosom', but *xooñño* 'her bosom' or *mooy* 'neck', *mooñño* 'his neck', cf. Khakas *xoyïn* / *moyïn*, Tuvan *xoyun* / *moyun* < CT **qoyïn* / **boyïn* (with distant re-

[33] Many verbs end in an etymologically unmotivated [-y] that drops when most derivational affixes are added (see Korkina et al. 1982: 102ff); this [-y] is motivated by a phonotactic rule preventing verb stems from ending in a short vowel, e.g. *utuy-* 'sleep' < **uθu-* < **uðu*. Forms like *iäy-* < **säv-* 'like, love' suggest that this rule became active following the formation of the Yakut diphthongs and secondary long vowels, see also note 7 and examples in 7 above.

gressive assimilation of nasality). Medially CT *-*y*- sometimes > Ø in Yakut, e. g. *tiiŋ* < **teyiŋ* 'squirrel'.

(19)	*ñurgun* 'glorious'	*ñimigir* 'compressed'[34]
	baay 'richness, possessions'	*öy* 'mind' (< **ög*)
	iYä 'mother'	*kuYaar*- 'roast, burn'
		(cf. Clauson: 726 *küñ*- 'burn')
	kööY- 'turn sour'	*xaYax* 'fat mixed w / milk'
		(cf. Old Turkic *kayak* / *kanak*
		kaymak, Clauson: 636)

2.4. Velar, uvular, and glottal sounds in Yakut

As is well known, the distribution of **k* and **q* in Common Turkic was allophonic: Namely **k* appeared in words with [-back] vowels, while **q* was seen in [+back] words. CT [*q] gave rise to Yakut [x], which is phonetically often heard as an affricate [q^x], especially in medial position, and sometimes as aspirated [q^h] word-finally. However, the distribution of back obstruents in present-day Yakut is conditioned differently than in the other Turkic languages. In Yakut, a (still synchronically active) process of "Velar Height Harmony" has been operative.[35] Namely, Common Turkic initial **k*- surfaces as such before not only [-back] vowels but also [+high] [+back] vowels as well, including the diphthongs; CT **q* > Yakut *x*- only before the [+back] [-high] vowels (**a* / **aa* / **o* / **oo*). In non-initial position, the reflex is determined by the height of the preceding vowel, with diphthongs considered [-high], e.g. *köγüs* 'back' < **köküz* or *küöx* 'blue' < **köök*. This latter form demonstrates that Velar Height Harmony was active after the formation of the Yakut diphthongs. Yakut Velar Height Harmony may reflect interference from a Tungus substratum during shift to Yakut (Thomason & Kaufman 1988), as such an effect is compatible with the kinds of har-

[34] The initial segments of this word probably reflect the Turkic root *yum* ~ *yüm* (Clauson 1972: 934), with front vocalism preserved, and distant nasal assimilation of **y* > *ñ*, à la *ñïma* above; for a parallel to the vocalism, cf. Yakut *min* 'soup' vs. Tuvan *mün*. The immediate source for this word in Yakut may not be Turkic, however.

[35] Some Yakut dialects (e.g. Viljuj (Ubrjatova 1960)), as well as Dolgan, preserve **q*. In Dolgan, Velar Height Harmony was observed only in word-initial position; elsewhere regular Back Harmony of velars was preserved, see 3. below.

mony systems attested in Tungus languages (Vaux 1996).[36] For a few non-productive affixes, however, the initial velar is determined by the original distribution according to the specification of the feature [back] (i.e. [γ] with [+back] vowels and [g] with [back]), e.g. the verb formant *-(I)rGAA* (*moǰurγaa-* 'consider self strong' vs. *küühürgää-* 'show strength'). Also, throughout the various dialects of Yakut, one finds lexical or idiolectal preservation of word-internal Velar Back Harmony, rather than Velar Height Harmony.

(20) *küöx* 'blue' < **köök* *kör-* 'see' < **kör-*
xaan 'blood' < **qaan* *xaar* 'snow' < **qaar*
kïïs 'girl' < **qïïz* *küöl* 'lake' < **kööl*

Yakut [γ] and [ŋ]—as was true of Common Turkic—are lacking in initial-position, while [g-] is seen in this position only in a single modern Yakut root *gïn-* 'do'; in "Tungusoid" dialects of northern Yakutia, initial [g-] is more common. Medially, [-g-] occurs as the [+high] variant of [-γ-]. Yakut [-ŋŋ-] occurs medially due to the consonant harmony processes (see 2.5.) and in certain lexicalized stems. Diachronically, the intervocalic velar spirants were generally lost, giving diphthongs and secondary long vowels (see 1 above). Dialectally, the intervocalic velar spirants can be lost in many words, e.g. *barïaγïm* ~ *barïam* 'I will go'. However, Yakut preserves CT **-ŋ-*, where other Siberian Turkic languages develop (sometimes nasalized) long vowels, e.g. *uŋuox* 'bone' < **suŋook* < **süŋök* > Khakas / Kirghiz *söök*, Yakut *sïŋaax* 'cheek' < **yaŋaq* > Tuvan *čää̈q*, Khakas *naax*, Altay *d'aaq*, Kirghiz *ǰaaq*.

(21) *kiäŋ* 'wide' < **kääŋ* < **kiiŋ* *saŋa* 'new' < **čaŋa* < **yaŋï*
sïa 'fat' < **yaaγ* *uolan* 'boy; son' < **oγlan*
ühüö 'third' < **üčegü* *uus* 'clan'< **uγuš*
suon 'fat' < **yoγun* *suoryan* 'blanket' < **yoγuryan*

Note that Yakut often exihibits the "Kipchakoid labio-velar effect", whereby the loss of voiced velar / uvular sounds has a generalized rounding effect, surfacing either as a long rounded vowel (or diphthong) or as a labial semi-vowel (or continuant), e.g. Yakut *uos* 'lip' < **aγïz* or *utuu* 'hot' < **isig*.

[36] But note the Yakut-Dolgan correspondences discussed in 27 below.

2.5. Consonant harmony in Yakut (including lexicalized assimilation)

Of all the Turkic languages, consonant harmony processes have undergone the most extensive development in Yakut. The features that harmonize in modern Yakut are [nasal], [coronal], [anterior], [lateral], [voice], and [high]. Throughout the history of Yakut, clusters of consonants have assimilated various features, frequently resulting in a geminate consonant; this process is still observable on the level of dialect or *govor*, or even in individual speaker pronunciation.

The base form of a Yakut affix can be considered the form following vowel-final stems. Affixes that begin with a labial consonant in Yakut assimilate to the marked values of the features [nasal] and [voice], i.e. [+nasal] and [+voice]. Following a voiced consonant, *B*-initial affixes surface as [b-][37]; after nasal-final stems, Yakut *B*-affixes are realized as [m-]; when a voiceless consonant precedes, these affixes surface in a [p-]-initial form (i.e. [voice] > [-voice]). In addition, syllable-final /-n/ and /-t/ undergo complete assimilation to the following labial sound, i.e. yielding [-mm-] and [-pp-], respectively. As noted above, there is still a tendency in Yakut dialects to move clusters into geminates like [-pp-].

(22) Yakut labial harmony processes

ülälääbit 'worked'	*körbüt* 'saw'
muŋmut 'our sorrow'	*sitpit* 'overtook'
appït 'our horse' < ***atpït*	*xotummut* 'our lady' < ***xotunmut*

Like the labial sounds discussed above, [+nasal] and [+voice] are active harmonizing features for alveolar-initial suffixes. [-t-] is the base form of *T*-affixes, while [l-] is the base form in *L*-affixes, i.e. the allophones following stem-final vowels. Also, stem- or affix-final /-t/ and /-n/ assimilate completely to a following stop or nasal.

(23) Dento-alveolar harmony processes

attar 'horses' (< **atlar*)	*küöllär* 'lakes'
xaannar 'bloods' (< **qaanlar*)	*baaydaax* 'rich' (< **bayliïq*)

[37] The common *B*-affixes include *-BIt* 'past participle' or 'first person plural' and *-BAtAx* 'negated past' (< **-mAdUK*). A few affixes retain an initial [*m*-] (more properly *-(I)m*), e.g. *-(I)m* 'first person singular' or *-(I)mAx* (<**-mAK*), a lexicalized, non-productive noun formant.

küräxtääx 'heatedly, fervently'	*ǰiälär* 'houses'
ǰiälääx 'house master; landlord'	*kördäx-* 'seen' (< **kördük*)
üläläätäx- 'worked'	*däŋnännäx-* 'victimized'
buollax- 'been' (< **boolduq*)	

Cluster assimilation involving alveolar sounds in Yakut is only in part phonologically predictable; that is, in some instances the output is determinable solely by the phonological nature of the two sounds involved, while in other cases, the morphemes involved themselves determine the output. In other words, Yakut alveolar cluster assimilation has been partly morphologized. These clusters occur either at morpheme junctures or through the loss of etymologically epenthetic high vowels in various morpheme combinations. The sequences /-tn-/, /-yn-/, and /-rn-/ systematically yield [-tt-], [-yd-], and [-nn-], respectively in Yakut. However, the cluster /-ln-/ goes to either [-ll-] or [-nn-], while /-rl-/ can give [-ll-] or [-rd-]. In the case of the former set, [-nn-] appears mainly in three common "postpositional" nouns, *kälin* 'behind', *ilin* 'in front' and *alïn*[38] 'under' and in possessive forms of *kïlïn* 'in-law', while [-ll-] is seen in participle forms of reflexive verbs. The reflexes of /-rl-/ seem to have been morphologized in a curious fashion with respect to the plural affix *-LAr*: [-rd-] is the reflex in nominal forms, while [-ll-] surfaces in verbs: *kötördör* 'flying ones' vs. *kötöllör* 'they are flying'.[39] In addition, in passives one finds syncope and a "mutual" assimilation process, while underlyingly homophonous reflexives show no such variation, e.g. *ïttar* 'climbs up, rises' < ***ïtïnar* but *ïtïnar* 'shoot self', *bïstar* < ***bïhïnar* 'breaks' but *bïhïnar* 'cut self', or *xaydar* < ***xayïnar* 'it splits' but

[38] As pointed out by an anonymous reviewer, Dolgan shows a different assimilation with this stem, e.g. *allara*, and thus this stem would not be exceptional in this language.

[39] The interaction of **l* and **r* actually goes further than this. First, there are at least two (dialectal) lexical exceptions to the split of /rl/ > [rd] in nouns. Also, /r/ appears as [l] in conjugated forms of two verbs, perhaps as a result of a dissimilation of the first of two /r/s in coda-position in consecutive syllables (Korkina et al. 1982: 93). Also, certain verb roots exhibit a curious alternation (usually) between unmarked forms with a long vowel / diphthong and stem-final [-r] and passive forms with a short vowel and [-l-], e.g. *siir-* 'make holes in sthg.' but *silin-* 'become full of holes' or *süör-* 'untie' but *sölün-* 'come untied'.

xayïnar 'surrounds, covers'.[40] Note also *biller* 'become famous, well-known' *(<**biliner)* vs. *biliner* 'confess'. As mentioned above, some historical **-lT-* clusters were simplified in the (pre-)Proto-Yakut variant of Common Turkic, and thus were not eligible for assimilation to *-ll-*, unlike such loans as *olloon* 'part of kettle / teapot' < Evenki *oldon* or *ällää* 'crush', 'knead' < Buryat *äldä* 'knead'.

(24)	*ittäbin* 'I warm self' (< ***itinäbin*)	*ottor* 'he stokes (the stove)' (< ***otunar*)
	xoydubut 'thickened' (< ***xoyunubut*)	*munna* 'his nose' (< ***muruna*)[41]
	innim 'in front of me' (< ***ilinim*)	*billär* 'becoming well-known' (< ***bilinär*)

The palatal triad of *č / ǰ / ñ* reflect the same kind of harmonic patterning that the labial and alveolar series do in only a single affix.[42] The apparently regular change of CT **č* to Yakut /s/ ([s], [h]) has often left little trace in most [-č-]-initial affixes in Yakut—whether they be of Turkic, Evenki, or Mongolian origin. Also, the historically unaltered [č-] sounds in these affixes show no variation according to the voicing and nasality of the preceding segment; however, these affixes are all of limited distribution. The only affix exhibiting behavior similar to the [+voice] and [+nasal] assimilation is the common *nomen agentis* formant *-CIt / sIt* (< **-čI(t)*), where the regular change of **č* > Yakut /s/ has been rephonologized: In this one affix *(*)/č/* > [s] only after [-k] and [-x], i.e. a kind of [-ant] dissimilation;[43] intervocalically, it further undergoes the change to [-h-], as elsewhere, e.g. *ahïï* < **ačïγ*. Following voiced continuants and nasals, the affix appears with a [ǰ-] and [ñ-], respectively; after voiceless consonants, it remains [-č].

[40] Similar assimilation phenomena are attested in other Siberian Turkic languages, e.g. Tuvan (Isxakov 1955) *ottup* < ***odunup*, *töktür* < ***tögülür* or *minnir* < ***bilinir*.

[41] Note Kirghiz *murun* > *murdu* 'his nose'.

[42] One lexicalized affix in Yakut *-mñI-* < Mongolian **-mǰI* exhibits a nasalized variant only; note also the [s] ~ [ññ] alternations reflecting CT **-nč-* mentioned above.

[43] This change of *(*) / -č- / >* [*-s-*] in Yakut may be of relatively recent diffusion: Note the dialectal variants *balïksït* ~ *balïkčït* 'fisherman'.

(25) Palatal harmony processes in Yakut

	olonxohut 'olonxo singer'	*kömüsčüt* 'gold- / silversmith'
	ïaññïksït 'milkmaid'	*otoññut* 'berry gatherer'
	sonorǰut 'pathfinder'	
but	*kulunčuk* 'little colt' (**-*ñuk*!)	*uonča* 'around ten'

The consonant harmony processes that affect the velar / uvular sounds (so-called *G*-affixes[44]) reflect a two-fold system. On the one hand, the features [+voice] and [+nasal] harmonize in the by-now familiar manner. Also, the so-called Velar Height Harmony that was operative in the diachrony of Yakut is still active morphologically, whereby the back (uvular) variant is used after [-high] vowels, even if they are [-back], while preceding [+high] vowels require the (historically) front-variant, [g] (26). Nasal-final stems appear with [ŋ]-initial affixes, while voiceless stem-final consonants require a [k-]-initial affix, the affix-initial consonant further fully assimilates to a preceding [-x]-sound. Note also that a stem-final /-t/ or /-n/ fully assimilates to a following [k] or [ŋ], yielding [-kk] (< **-*tk*-) and [-ŋŋ-] (< **-*nŋ*-), respectively.

(26) Yakut uvulo-velar harmony processes
(*-GIt* < *-*ŋIz* 'second person plural possessive')

ïnaxxïït 'your cow'	*kiiskit* 'your squirrel'
ǰiäγit 'your house'	*ahïïgït* 'your spike'
imŋit 'your brand'	*akkït* 'your horse'
xotuŋŋut 'your mistress'	

3. Dolgan and Yakut dialects

Though spoken by more people than any other Turkic language of Siberia, Yakut exhibits less pronounced dialectal variation than smaller languages like Khakas or Altay to the south. However, the variants of Ya-

[44] The base (post-vocalic) form of *G*-affixes appears with one of the voiced velar allophones, [γ] or [g], depending on the height specification of the preceding vowel (where a language-specific default rule of [high] > [-high] is operative). In at least one affix, however, the form is [-k-]-initial following vowel-final stems; this is a diminutive used only with kin terms, a formation also found in other Turkic languages: *iYäkäm* 'my mommy' or *ayakam* 'my daddy'. Also, a few other suffixes appear without voiced variants, e.g. the adjective formant *-xay* / *-key* in *boloorxoy* 'turbid'.

kut encountered in numerous regions, particularly in the north of the Saxa Republic (and adjacent areas) differ from those of central districts which are the basis of the literary standard. In some instances, the relevant dialectal features probably represent interference through shift from a Tungus substratum (Romanova et al. 1975); in other cases, the speakers in a peripheral region have retained (often lexicalized) archaisms of Common Turkic phonology not present in the bulk of Yakut dialects. One of these divergent Yakut varieties, Dolgan, spoken beyond the borders of the huge Saxa Republic, is sufficiently different from the Yakut prototype to be considered a separate language by many Turkologists.

3.1. Dolgan

Dolgan (Ubrjatova 1985, self-designation *tïa kihite* 'forest person'), spoken to the west of Yakut, is the only language closely related to it. The Dolgan are believed to be in large part Yakutified Evenki (specifically of the Dulgan clan, among others). Though similar to Yakut in many ways, the language of the Dolgan differs phonologically in several respects. Velar Height Harmony is reflected only in word-initial position in Dolgan; in post-vocalic position, regular Common Turkic Velar Back Harmony remains operative. Thus, for diphthongs Velar Height Harmony is operative on the initial segment but Velar Back Harmony on the second. Also, CT **q* remains /q/ (often phonetically [q^{x}]) in Dolgan rather than shifting to [x-] as in Yakut.[45]

(27)	Dolgan	Yakut	gloss
	huoq	*suox*	'not'
	kerek	*kerex*	'necessary'

[45] There are some sporadic correspondences of Yakut [x-] to Dolgan [ŋ-], due to a regressive distant nasal assimilation and probable Nganasan (North Samoyed) influence in Dolgan, e.g. Yakut: *xamsa*, Dolgan: *ŋassa* 'pipe' or Yakut: *kini*, Dolgan: *ŋini* 's/he, it'. In the case of the first example, an anonymous reviewer suggested that the Yakut and Dolgan forms of this "Wanderwort" of Siberia may simply stem from differing loan sources. Note also that CT **q* (often phonetically [q^{x}]) is preserved in some Yakut dialects of the Viljuj region.

As is apparent from the first example, Yakut initial [s-] < (*y-, *č-) corresponds to initial [h-] in Dolgan.[46] Obviously, a similar rule had already been operative during the development of Proto-Yakut, ultimately resulting in initial Ø- < *h- < *s-. Ubrjatova (1985) suggests that the rule was reintroduced through Evenki contact, or may be a substratal feature itself.[47] Dolgan lacks the characteristic Yakut sound [Y]; rather, words in Yakut with [Y] correspond to [ñ] in Dolgan (< *ñ). On the other hand, one finds Dolgan [-yn-] corresponding to Yakut [-ññ-].

(28)	Dolgan	Yakut	Gloss
	iñe	*iYe*	'mother'
	añiï	*aYiï ~ añiï (~ ayiï)*	'sin'
	añaq	*aYax ~ añax*	'mouth'
	kïynar	*kïññar*	'boil, seethe'

The variation in pronunciation of certain words among the Yakut-speaking population is frequently used as a diagnostic characteristic in Yakut dialect studies (Ubrjatova 1960; Afanas'ev 1965; Voronkin 1984, etc.). Thus we find such alternations as *tugut ~ tubut* 'reindeer calf', *uba ~ uga* 'its handle', *buus ~ muus* 'ice' *xatïn ~ xotun* 'lady'. The *b ~ g* alternations appear as either one or the other in Dolgan, e.g *tugut* or *uba*. Dolgan exhibits little or no hypercorrective nasalization of the *buus ~ muus* type. In Yakut, words like *xatïn ~ xotun* and *daydï ~ doydu* result from assimilating a word with disharmonic vocalism to the Yakut harmonic pattern: The Common Turkic form of the former word is **qatun*. In Yakut dialects, either the initial syllable conditions the harmony or the final syllable does (i.e. the stressed one in uninflected forms), yielding the unrounded and rounded variants, respectively. Dolgan on the other hand preserves the original vocalism in such forms, e.g. *qatun* or *qannuq* 'which'. In certain forms, an original long vowel may have been preserved, e.g. Dolgan *kööl* vs. Yakut *küöl* < **kööl* 'lake'. In other forms

[46] Note also that Dolgan, like Yakut, preserves CT **č* in certain affixes, e.g. *otutča* 'about thirty'.

[47] It is possible that the original phenomenon in Proto-Yakut may have likewise been the result of substratal influence. However, as is well known, the change of **s > h* is far from unusual, being characteristic of such languages as Greek in its development from Proto-Indo-European, as well as such Turkic languages as Bashkir, e.g. *höt* 'milk' < **süt*.

the long vowel is clearly secondary: Dolgan *ool* Yakut *uol* < **oɣul* 'son'; note, however, that the original (Proto-)Yakutic vocalism is preserved in some inflected forms, e.g. *uola* 'his son'. In addition, a kind of regressive assimilation of diphthongs to high vowels is seen in various Dolgan morpheme combinations.

(29)	Dolgan	Yakut	Gloss
	diibit	*diebit*	'said'
	körüükpüt	*körüöxpüt*	'we will see'
	kütüütün	*kütüötün*	'his son- / brother-in-law.ACCUSATIVE'
	uulun	*uolun*	'his son.ACCUSATIVE'

Another distinguishing feature of Dolgan is its different treatment of various consonantal assimilation phenomena. First, as stated above, Velar Height Harmony was only operative in Dolgan in word-initial position. Also, while the sequences *n-B*, *t-B*, and *t-G* are realized as in Yakut (viz. [-mm-], [-pp-], and [-kk-], respectively), *n-G* surfaces as [-nŋ-] in Dolgan, e.g. *qallaanŋa* vs. Yakut *xallaaŋŋa* 'in the sky'. Sometimes a spread of the harmony is seen between words in Dolgan, for example *kälbik kihi* < **-t k-* < ***kälbit kihi* < **kälmiš kiši* 'man who came'. The sequence /-ld-/ is preserved in Dolgan, unlike Yakut where it generally corresponds to [-ll-] (or [-l-]), e.g. *haldaat* vs. Yakut *sallaat* 'soldier', *oldon* vs. Yakut *olloon* 'kettle part'. The various harmonic properties associated with the Dolgan liquids also differ from Yakut, see the note on *-nn-* and *-ll-* from */-ln-/, above. A curious type of distant dissimilation of /r/ to [-l-] is seen in Dolgan. This *l* < /r/ triggers its own kind of harmony in *T-* and *L*-affixes, e.g. *kör-* 'see' > *köllör-* 'show' (= Yakut *kördör-*) > *köllördör* 'if he shows' but *köllördöllör* 'if they show'; similar phenomena are attested in some Yakut dialects (Korkina et al. 1982).[48]

[48] Finally, according to Ubrjatova (1985), certain words ending in /-r/ or /-n/ trigger voiceless-initial variants of particular affixes, e.g. *uhun* > *uhuttar* 'long ones' or *doɣor* > *doɣottor* 'friends'. An anonymous reviewer suggested that rather than representing a lexically restricted phonological devoicing of /-n/ and /-r/ to [-t], these are a doubly marked, mixed Mongol-Turkic plural form **t-lar* > /t-tar/, with a cluster simplification before the doubled *-tt-*.

3.2. Brief notes on Yakut dialects

While a complete study of all phonological phenomena in the various Yakut dialects would require a book-size study, a few comments relevant to Yakut historical phonology can be made. As stated above, the Yakut dialects in the northwest and northeast regions reflect a more pronounced Tungus influence than the dialects of central and southern Yakutia. In terms of phonology, "Tungusoid" dialects of Yakut frequently lack the [Y] sound; in addition, initial [g-] and [p-] are far more frequent than in standard Yakut.

Throughout the various Yakut dialects, as well as among dialects of various other Turkic languages, one encounters a variety of vocalic correspondences on the lexical level. These include correspondences between front and back vowels, between high and non-high vowels, long vowels and diphthongs and between long vowels / diphthongs and short vowels; in some instances, these correspondences are the result of an irregular assimilation process in one dialect or another.

(30) Esey dialect (Voronkin 1984):

tïgaayï 'wasp' *(**tigääyi)*	*čoŋočox* 'stump' *(**čöŋöčök)*
mïnna 'here' *(**manna)*	*irä* 'only' *(**ärä)*
ahïïlïk 'food' *(**ahïlïk)*	

Verxojansk dialect (Afanas'ev 1965):

süühü 'cattle' *(**süöhü)*	*sään* 'river from lake' *(**siän)*
anax 'cow' *(**ïnax)*	*čarkïy* 'teal (bird species)' *(**čïrkïy)*

In the dialect of the Esey (Jähäy) *raion* of the Evenki *oblast'* (Voronkin 1984: 50-51), a curious development has occurred yielding harmonically neutral [i] and [ii], which are acoustically slightly farther back than standard Yakut [i] and [ii]. Although [ï(ï)] is attested in this dialect, [i(i)] frequently appears with [+back] words. Note that neutral [i(i)] is not only opaque with respect to back Harmony, but [round] Harmony as well (after both [+high] and [-high] vowels). Note that a number of these words are clearly of borrowed (Evenki) origin.

(31) *axtamii* 'reindeer castrated at late age'
loŋkii 'hook for hanging cauldron / teapot over fire'
kuliirdaahïn 'placing of reindeer skull on a special platform'

but *kïrgittar* 'girls'
harsin 'tomorrow' (= *sarsïn*)
bastaki(i) 'front; main'

As noted above, among Yakutologists one of the major diagnostic traits of the modern dialects is the correspondence between words with either *a*- or *o*-vocalism in the root, with the concomitant change in harmonic patterning, e.g. *xatïn* ~ *xotun* 'lady' or *aγïnïax* ~ *oγunuox* 'grease'. In traditional interpretations of Yakut dialectology (e.g. Baraškov 1985, Ivanov 1993, Korkina 1992, Ubrjatova 1960, Voronkin 1980, 1984) *a*-forms are attributed to Evenki influence while *o*-forms signal contact with Even. In most cases these isoglossic variants result from an assimilation to Yakut vowel harmony patterns of words which originally violated them, for example **qatun*; thus, one dialect "normalized" the form in the direction of rounded vowels (stem-final syllable), while another favored unrounded ones (root / stem-initial syllable). This of course does not preclude an interpretation of this change as having been caused or reinforced by a shift to Yakut by various different North Tungus substratum populations.[49]

Rounding of vowels adjacent to labial consonants is attested in a few Yakut dialects (e.g. Esey), implying a spread of [+round] from the consonant to the vowel.

(32) *bulaan* 'plan' < Russ. *plan* (vs. *bïlaan*)
ǰubar 'frost' (vs. *ǰïbar*)
sümehin 'juice, sap' (vs. *simehin*)

The *b* ~ *g* alternations mentioned above generally occur with words that contain rounded vowels, e.g. Verxojansk *subas* ~ *hugas* (vs. standard Yakut *čugas* 'near') *tubut* ~ *tugut* 'reindeer calf', *üpsüön* 'rainy snow of late fall' (vs. standard Yakut *öksüön*) or *kölbörü* 'lizard' (vs. standard Yakut *külgeri*).

Yakut consonantism is also reflected in varying ways among the modern Yakut dialects. As stated previously, "Tungusoid" dialects of Yakut exhibit certain diagnostic features, e.g. presence of initial [g-] and [p-] or lack of [Y]. Other characteristic aspects of these dialects include,

[49] Note, however, the preservation of original vocalism in the Dolgan reflex of this form, mentioned above.

as in Dolgan, the change of (Proto-)Yakut [s-] to [h-], < CT *y- and *č-; similarly, standard Yakut /č-/ may surface as Esey [s- ~ h-], while standard Yakut /s-/ may conversely appear as [č-] in lexicalized hypercorrective formations. In addition, as in Dolgan, various dialects of Yakut preserve *q (as [q] or [q^{x}]) instead of [x]; in others (e.g. Verxojansk (Afanas'ev 1965) or Olenek (Romanova et al. 1975)), Yakut *x and *γ have become fronted to [k] and [g], respectively. In the Esey dialect, one also encounters a [y] corresponding to standard [r], e.g. *kïya* 'small' (vs. *kïra*) or the comparative case ending *-TAAγAy* (vs. *-TAAγAr*).[50]

(33a) Esey dialect:

haxa 'Yakut' (vs. *saxa*)	*haas* 'spring' (vs. *saas* < **yaaz*)
hir 'place' (vs. *sir* < **yer*)	*sugas ~ hugas* 'near' (vs. *čugas*)
saas 'hour' (vs. *čaas*)	*čäŋiyä* 'chin' (vs. *säŋiyä*)

(33b) Verxojansk dialect:

xaakïnay 'baby perch' (vs. *xaaxïnay*) *suorgan* 'blanket' (vs. *suorγan*)
horgoto[51] 'its part' (vs. *sorγoto*)

As is obvious from the examples above, the characteristic features of a given Yakut dialect may sometimes only be diffused among a limited lexical inventory.

As stated before, Yakut has moved furthest away from the Common Turkic prototype with respect to consonant harmony. Often geminates are the end result of the assimilatory processes that have been active throught the development of Yakut; likewise, this process has continued throughout the development of various dialects, e.g. Amginsk region *otto* for *orto* 'center', etc. Note that this gemination strategy for cluster simplification is even observable on the individual speaker level, i.e. the processes remain active idiolectally. For example, in the Yakut spoken in

[50] Similar *r* : *y* correspondences can be found in the northeast dialect zone as well (Korkina 1992), where they are sometimes attributed to Yukaghir influence!

[51] Note the irregular reflexes of the change Proto-Yakut **s* > *h* in a given Yakut dialect area (Verxojansk) that is typical of Yakut and of the Siberian Turkic languages as a whole; cf. reflexes of **y-* > **č* / **ǰ* (> *t'* / *d'*) in South Siberian Turkic (Khakas, Shor, Altay, Tuvan, Chulym Turkic), where long-term dialect mixture complicates issues greatly (Anderson (forthcoming)).

the Verxojansk region, unmotivated medial gemination is frequently encountered: *miexxe* 'I.DATIVE', *ulaxxan* 'big' or *oŋoччo* 'boat'.

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On the Turkic origin of the names of the Hungarian tribes

Árpád Berta

Berta, Árpád 1998. On the Turkic origin of the names of the Hungarian tribes. *Turkic Languages* 2, 32-48.

In the first half of the study, the author reviews the work that has been done on the onomastics of Hungarian tribal names, with special reference to the conclusions reached by Julius Németh (1930, 1966, 1975), and sums up his own findings on the subject (Berta 1989, 1990a, 1990b, 1991). The second half of the article suggests new etymologies for Nyék and Megyer, which establish their membership in the set of Hungarian tribal names of Turkic origin. The author shows that Nyék and Megyer, considered to be of Finno-Ugric origin in the earlier literature, admit of the same analysis as the names of the other Hungarian tribes, which, ultimately, can be traced back to Turkic military terminology.

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History writing for generations was dominated—and handicapped—by the assumption that a particular individual's ethnic affiliation was something that could be determined with absolute certainty. Another axiom serving to restrict the range of historical perception was that the durable cohesion of the various peoples was something that also existed in the distant past.

It was not until the 1920s that it gradually became obvious that the histories written by the early medieval historians were not so much histories of the peoples of their time, but accounts of their ethnogenesis.

Thanks to the work done by Reinhard Wenskus[1] and, more recently, by Herwig Wolfram, Joachim Herrmann, Herwig Friesinger, Falco

[1] For the terminology and methodology of modern ethnogeny, see primarily Wenskus (1961).

Daim, Walter Pohl and the outstanding Hungarian historian Jenő Szűcs,[2] the 1980s saw the gradual emergence of a new approach to the history of the Early Middle Ages.

Then came the publication in two volumes of the material presented at a 1986 symposium on the subject in Zwettl, Austria (Wolfram & Pohl 1990 and Friesinger & Daim 1990); the papers—marshalling new findings and new hypotheses—left no doubt that a new methodology was in the offing.

That gentilism as a principle of organization entailed poly-ethnicity is nothing new. We have long known that the Langobard armies consisted of Gepidae, Bulgarians, Sarmatians, Saxons, and other Pannonian ethnic groups. And that the name "Avar" in the sources can stand for Kutrigur Huns, Bulgarians, Gepidae, Romans and Slavs. It is also an established fact that "national" affiliation among these poly-ethnic peoples was not necessarily exclusive. A person could be a Gepid as well as a Langobard or an Avar; his gentile name, indicative of his membership in a major tribal confederation, could be devalued overnight and become no more than the name of a local clan.

It is the pattern of this development—from tribe, to tribal confederation, to ethnic group—that we are just beginning to try to trace.

The study of Hungarian tribal names, particularly their significance as a historical source, calls for a new approach. Obviously, this is something that historians and linguists will have to work out jointly. What I propose to do in what follows is to summarize the findings that linguists have reached to date, in the hope that these findings will serve as the starting point for modelling the formation of the Hungarian tribal confederation.

When it comes to doing research on Hungarian tribal names, linguists have two major sources at their disposal. One is the list of tribal names contained in the Byzantine Emperor Constantine Porphyrogenitus' *De administrando imperio*,[3] a work that we have been familiar with for the past 250 years; the other is the set of all the place names in historic Hungary which originate in tribal names.

[2] See Szűcs (1971 and 1992), both of which deserve an international readership.

[3] For a critical edition and English translation of his mid-10th-century source, see Moravcsik & Jenkins (1967).

Since the pioneering work done by Nagy (1910), there can be no questioning the fact that the two sources must be used together complementarily. Considered in themselves, Constantine VII's data admit of a number of readings and can easily mislead a researcher unfamiliar with the relevant Hungarian place names. I have no intention of listing the often ludicrous interpretations that have been offered by scholars who have ignored the latter source. Some of the earlier of these dilettantish etymologies have, at any rate, been summarily evaluated by Németh (1930: 227-230). Suffice it here to give but a single, somewhat later example. Interpreting Constantine's list of tribal names, the excellent German Altaic scholar Menges (1944-1945: 256-280) read the Hungarian tribal name *Keszi* as *Qasï*, and the name *Kér* as *Qarï*. In consequence, the translations he suggested, 'corral' and 'old', were bound to be mistaken.

Németh (1930) was the first to offer a systematic, scholarly account of Hungarian tribal names. Reviewing the earlier accounts that had been given, he retained and / or supplemented those that he found tenable and offered new etymologies for those that he did not. Of the etymologies Németh "retained" in the system he proposed in 1930, we find the one for *Nyék* (cf. Herman 1905), and for the tribal name *Tarján*, one of the earliest of the etymologies still accepted today (cf. Salamon 1876: 722). With some qualification, we can include Németh's interpretation of the tribal name *Megyer* among the "retained" etymologies, for what he did was build on an idea of Reguly's (cf. Hunfalvy 1864: 47). The long and the short of the conclusion Németh reached in 1930 was that, except for the name *Nyék* and the first part of the name *Megyer*, all Hungarian tribal names were of Turkic origin.

For the tribal name *Nyék*, Németh gave a Finno-Ugric etymology on the basis of the obsolete Hungarian common noun *nyék*, meaning 'hedge; a fenced-in place of refuge'. For the tribal names of Turkic origin, Németh submitted the following meanings: *Kabar* 'rebel' (vb., 2nd pers. sing., imperat.), and 'rebel' (n.); *Megyer* 'Mańć-man'; *Kürt* 'snowdrift'; *Gyarmat* 'tireless'; *Tarján* 'viceroy'; *Jenő* 'minister'; *Kér* 'giant'; *Keszi* 'fragment'.

Németh's translations of these tribal names and the confederative structure that their etymologies were assumed to reflect became axioms of Hungarian historiography after 1930. Their impact was almost too pervasive, so much so that in his later works (see primarily Németh 1966), Németh found it necessary to rephrase and qualify some of his

earlier explanations. Compelling critical comments from other quarters, too, led him to review his earlier position and to retract, in one of his last articles (Németh 1975: 154-160), the etymologies he had proposed for *Megyer, Gyarmat,* and *Kér.*

Németh was not the only one to have come up with etymologies for at least certain Hungarian tribal names. Kristó, Makk and Szegfű (1973: 36) have recapitulated the attempts to identify the tribal name *Kér* with the Hungarian word *kér* in the obsolete sense of 'bark' (as of a tree), or 'crust' (as of bread), and alternatively, with the modern Hungarian third person singular verb *kér* meaning 'wants, demands'. Of the etymologies that have been proposed for the tribal name *Kürt*, the most familiar is the one correlating it to the Hungarian noun *kürt*, meaning 'horn, bugle, trumpet' (cf. Benkő 1970: 693). Moór (1951: 50-51) submitted that the tribal name *Keszi* was related to the Hungarian *kesze, keszi*, dialectal forms of *keszeg*, 'carp', and suggested that *Keszi* might be totemistic in origin.

All of the above accounts—a mere sampling of the etymologies that have been proposed over the years by way of interpreting the names of the Hungarian tribes—are fraught with difficulties, phonological as well as semantic. I have no wish to enter into their refutation here, having dealt—in 1989 and thereafter—in some detail with the etymology of these tribal names (see Berta 1989, 1990a, and 1991), and having discussed the historical implications of these latest etymologies in a paper delivered in Oslo in 1989 (Berta 1990b). It was this work on tribal names proper that led me to look at the names—*savarti* (Berta 1992a) and *Ungar* (Berta 1992b)—by which foreigners had been wont to refer to the Hungarians. I found these terms to be members of the same semantic field as the tribal names themselves and thus to provide indirect confirmation of the soundness of the new etymologies.

My studies of 1989 led me to propose new etymologies for four of the Hungarian tribal names. As I saw it, the original meaning of *Kürt, Gyarmat, Jenő* and *Kér*—all of which, in the final analysis, could be shown to originate in Turkic military terminology—was probably 'little breast', 'hinder part of the back', 'little flank', and 'the last'.

Besides introducing these four new etymologies, I also revised the etymology Németh had proposed for the tribal name *Keszi*, along the lines suggested by Pais (1930: 299).

There is no need to recapitulate the details of any of these etymologies here. (For the particulars of each etymology, see Berta 1990a and

1991.) Suffice it here for me to give the Turkic etymon of each tribal name and those intermediate forms which can be attested in Turkic. Other data will be cited only where absolutely necessary.

The etymon for the tribal name *Kürt* is *köküz*, meaning 'breast', probably a derivative of a verb **kök-*, meaning 'suck'. Presumably, it was the Chuvash form of this word **köγür* > **köwür* > **kȗr* that found its way into Ancient Hungarian,[4] where there was affixed to it the well-known Ancient Hungarian diminutive suffix[5] of Finno-Ugric origin, **+tü* > Old Hungarian *+t*. We might note here that the ancient diminutive suffix had not only a diminutive function, but—most probably, like its Turkic equivalent—also an individuating function.

Ultimately, the tribal name *Gyarmat* can be traced back to a Turkic compound, *ǰarïmartï*. The first part, *ǰarïm*, is Chuvash in appearance: it has *ǰ-* in initial position and the suffix *-m* where Common Turkic would have *y-* and *-n*, respectively.[6] Originally, the word meant 'shoulder-blade', which was modified to 'back'. The second part of the compound is the word *art* 'the back or hinder part of anything'[7], and—as can be expected of a regular Turkic compound—it is the possessive form of the

[4] The fact that the modern Chuvash form(s) of the Turkic etymon are incompatible with this reconstruction does not discredit this hypothesis. It was established quite some time ago that the early Chuvash elements of the Hungarian language do not come from some earlier form of modern-day Chuvash. In Chuvash, we have the following data: *kăkăr* 'grud' (verxnjaja čast' tulovišča); 'grud (ženskaja)' (ČuvRS); Anatri dialect *kăkăr, kăkkăr,* Viryal dialect *kŏkŏr, kŏkkŏr* 'grud (ženščiny)'; 'grud (zemli; čast' telegi: lisica)' (Ašmarin 1934: 108). Where we have medial *-k-* or *-kk-* in modern Chuvash, there formerly was **-k-*. That there were secondary, but archaic medial *-g-* forms in Turkic is attested in Oghuz and Kipchak: cf. Turkish *göğüs*, Turkmen *gövüs*, Gagauz *gȗs*, Codex Cumanicus *kövüs* (Grønbech 1942: 150).

[5] On the suffix, see D. Bartha (1958: 105-106).

[6] For the Common Turkic data, see Clauson (1972: 970a: *yarïn*); the modern Chuvash data: *śurăm* 'spina, hrebet, spinka (odeždy)' (ČuvRS), dialectal *śorăm* 'spina; pojasnica; vyšivka na spine kaftana' (Ašmarin 1937: 269).

[7] Originally, the initial vowel of Turkic *art* was long (*ārt*), and the word probably meant 'the nape of the neck' (Clauson 1972: 200b-201a).

third person singular of this word that is found in the compound *ǰarïmartï*,[8] which we take to be the etymon of *Gyarmat*.

In the case of the tribal name *Jenő*, the probable Turkic intermediary was either *Yänäk* or *Yänäγ*.[9] It was, at any event, a derivative of the original Turkic etymon *yan* meaning 'the hip; the side, flank' (cf. Clauson 1972: 940ab), either the diminutive *+Ak* (for the affix *+Ak*, see Erdal 1991: 40-42), or the affix *+GAk* (for the affix *+GAk*, see Erdal 1991: 74-75). One would like to be able to decide whether the Turkic intermediary was a *+Ak* or a *+GAk* derivative, but we have absolutely no grounds—neither phonological, nor morphological, nor semantic—on which to base such a decision. If the affix was *+Ak*, the tribal name *Jenő* originally meant 'little flank'; if the Turkic etymon had the affix *+GAk*, then *Jenő* originally meant 'face'.[10] It is important to note that the initial *y-* in the Turkic form of *Jenő* is one of the unmistakable signs of Common Turkic. It follows from this that the tribal name *Jenő* did not originate from the same Turkic language as *Gyarmat* and *Kürt*.

For the tribal name *Kér* we can assume a Turkic etymon **kērǖ*, and an intermediary **kerü̯* or **keri*. The Turkic etymon is a derivative. The stem is **kē*, meaning 'back, behind' (Clauson 1972: 686a), to which an original directional suffix *+rǖ* has been added (Clauson 1972: 736b-

[8] The Turkic intermediate form was probably **ǰarïmatï*. There seems to be no need to account for the **-r-* > *-Ø-* shift before the *-t-* in **atï*. It is a change well attested in several Turkic languages, Chuvash among them.

[9] We have no way of knowing whether the voicing and aspiration of the final guttural took place in the intermediate Turkic form, or in the Old Hungarian loanword. Both are equally plausible. It would be a fascinating study—and one that would require the analysis of a great many words—to try to determine what role the Turkic influence on Hungarian played in the development of the Turkic-Hungarian convergence which sealed the fate of the final guttural. It was Ligeti (1986: 71-82) who last called attention to this particular instance of Turkic-Hungarian convergence, a subject which has yet to be investigated in depth.

[10] Both possibilities presuppose a *ya-* > *yä-* shift in the Turkic word; the *+GAK* variant also presupposes an *-ñ-* > *-n-* shift. As I have already had occasion to point out (1990a: 35; 1991: 25-27), both possibilities are well attested in Pecheneg, and chances are that the tribal name is Pecheneg in origin, or derives from a language closely related to it.

737a). The tribal name *Kér* must have meant 'the part or place behind'; its origin is a standard word in most Turkic languages.

For the tribal name *Keszi*, I supplemented Németh's etymology (Németh, as mentioned above, took the form **Käsäγ* as his point of departure) with the information that the Turkic etymon was received into Hungarian in two forms, *käs* and *käsäk* (Berta 1990a: 36, 1991: 7-11). This accounts for the anomaly that the tribal name *Keszi* occurs in the oldest Hungarian monuments in a number of phonetic variants.[11] Turkic *käs*, meaning 'fragment, piece' is a standard word in Ancient Turkic;[12] *käsäk*[13] is a form ending in a Turkic diminutive. It is the same diminutive (*+Ak*) as must have occurred in the Turkic form of the tribal name *Jenő*.

The new etymologies summarized above have a number of implications for the history of the period. The new pattern of tribal names, as I have argued (Berta 1990b), sheds new light on what might have motivated the tribal alliance behind the name *Kürtgyarmat*, which figures in Constantine Porphyrogenitus' list of tribal names. It also seems to confirm the Byzantine emperor's account of the change of dynasties from Levedi to Álmos, or rather Árpád.[14] For the confederative structure that

[11] There is evidence of the two variants from Old Hungarian. Constantine Porphyrogenitus' text leads us to assume Old Hungarian **Keszi*; the etymon of the Hungarian place names *Keszi*, *Kesző*, *Keszü*, on the other hand, reflects the existence of the variants **Keszi*γ ~ **Keszeγ* in Old Hungarian.

[12] See Kāšġarī *käs* "a piece of anything" (Dankoff & Kelly 1982: 262)

[13] Specifying the nature of the final guttural runs up against difficulties of the same kind as I have outlined in connection with the Turkic intermediary of the tribal name *Jenő*.

[14] Constantine Porphyrogenitus' account of the change of dynasties within the Hungarian tribal confederation reads as follows: "A short while afterwards, that chagan-prince of Khazaria sent a message to the Turks (i.e. Hungarians), requiring that Lebedias, their first voivode, should be sent to him. Lebedias, therefore, came to the chagan of Khazaria and asked the reason why he had sent for him to come to him. The chagan said to him: 'We have invited you upon this account, in order that, since you are noble and wise and valorous and first among the Turks, we may appoint you prince of your nation, and you may be obedient to our word and our command.' But he, in reply, made answer to the chagan: 'Your regard and purpose for me I highly esteem and express to you suitable thanks, but since I am not strong enough for this rule, I cannot obey you; on the other

emerged from the new etymologies clearly implies that it was the tribe of Tarján (Árpád's tribe) that took over the leadership functions of the tribe of Megyer (Levedi's tribe) after the dynastic change (cf. Berta 1990b).

From the point of view of onomastics, my conclusions squared with those of Németh on two highly essential points. I had managed to set up a systematic description of Hungarian tribal names and had found the vast majority of these names to be of Turkic origin.

But there were also some major differences between Németh's findings and my own. The pattern I had hit upon in 1989 appeared to be more transparent than his and a suitable tool for reconstructing, at some later time, the various phases of the formation of the Hungarian tribal confederations. It was evident, however, that this task—which would fall to historians—would have to wait until I had managed to establish that the tribal names *Nyék* and *Megyer*, too, followed the same pattern.

As concerns the tribal name *Nyék*—which, as an obsolete Hungarian standard word, meant 'hedge'—I had already suggested the possibility of its Turkic origin in two separate papers (Berta 1990a: 33 and 1991: 6); in neither, however, did I adduce the data pertinent to its Turkic etymon: Kirgiz *ǰēk* and Bashkir *šěyäk*, both words meaning 'fenced-in flower bed, gully, trench marking the edge of a property, border, periphery'. In view of the fact that in Turkic we can find a morphological correspondence for Hungarian *nyék*, while the most we can reconstruct from Finno-Ugric—assumed until now to be the donor language (Németh 1930: 241-245, 1975: 155-156, Benkő 1970: 1039, Rédei 1988: 874)—is the verbal root, it seems a much more plausible approach to suppose the tribal name *Nyék* to be of Turkic origin, than to think of it as a Finno-Ugric element.[15]

hand, however, there is a voivode other than me, called Almoutzis, and he has a son called Árpád; let one of these, rather, either that Almoutzis or his son Árpád, be made prince, and be obedient to your word.'" (Moravcsik & Jenkins 1967: 173)

[15] If this supposition is indeed proved to be correct, the Hungarian tribal name *Nyék* (and the common noun *nyék*) will have to be categorized as an element of the most archaic Turkic stratum of the Hungarian language, a stratum where the unusual Hungarian *ny* [ń] ~ Common Turkic *-y-* correspondence is not unique: Cf. Hungarian *nyár* 'summer' ~ Common Turkic *yaz* 'id.'; Hungarian *nyak* 'neck' ~ Common Turkic *yaqa* 'the edge, border, collar'.

The origin of the tribal name *Megyer* is a subject on which I have had nothing to say in any of my earlier publications. My latest research, however, has turned up evidence that I should like to present at this point.

It might be best to start by reviewing the research results to date. There are two salient points on which all researchers have agreed. All have linked the tribal name *Megyer* to the ethnonym *magyar*; and all have sought to find a Finno-Ugric etymology for both the tribal name and the related ethnonym.

It would be hard to argue with the assumption that the tribal name *Megyer* and the ethnonym *magyar* have the same etymology.

Particularly since Róna-Tas (1993: 22) has convincingly resolved a long-standing difficulty: the exact nature of the correlation between the non-back sounds of the tribal name and the back sounds of the ethnonym. The dissimilar phonological patterns of *Megyer* and *magyar,* Róna-Tas has argued, are the result of the differences in the degree to which Ancient Hungarian and Old Turkic were stressed. The conclusions he arrived at are relevant from our point of view in another respect as well:

> "In a Turkic linguistic environment, the phonological pattern of *madžer* regularly changed to *medžer* under the impact of the stressed final syllable. The name of our Chief Tribe, thus, is the 'Turkicized' variant of the original Finno-Ugric, a variant developed in the course of generations of close Turkic-Hungarian contact, and one which, thus, fits the pattern of Turkic origin established for the other tribal names" (Róna-Tas 1993: 22).

The Finno-Ugric origin of both the tribal name *Megyer* and the ethnonym *magyar* is, as we have noted, the other point on which all researchers have been in agreement. This was Julius Németh's considered opinion; this was the theory subscribed to by the editors of *A magyar nyelv történeti-etimológiai szótára* (A historical-etymological dictionary of the Hungarian language) and the editors of *A magyar szókészlet finnugor elemei* (The Finno-Ugric elements of the Hungarian vocabulary), and, more recently, by Róna-Tas. The arguments they have presented might differ on points of detail, but not as regards the ultimate Finno-Ugric origin of both the tribal name and the ethnonym. Let us briefly summarize what it is that they actually said.

Németh had two theories on the subject. His earlier one (1930: 245-248) built on what Reguly had argued in 1841 (cf. Hunfalvy 1864: 47), and went as follows: *Megy* + root, the first element of the tribal name *Megyer*, was of Finno-Ugric origin and corresponded to Vogul *mäńši, mańši*, the Vogul name for both the Voguls and the Ostyaks. The second element of the tribal name, Németh thought, was the possessive *eri* form of Turkic *er*, meaning 'man' (1930: 247-249).

Németh's second interpretation (1975: 154-160) was an adaptation of a theory of Setälä's. In this view, the tribal name *Megyer* was ultimately totemic in origin and corresponded to Vogul *mansin*, meaning 'capercaillie'.

As explained in *A magyar nyelv történeti-etimológiai szótára* (Benkő 1970: 817), and in *A magyar szókészlet finnugor elemei* (Lakó 1971: 415-417), the ethnonym *magyar* and the correlative tribal name *Megyer* can be traced back to a compound consisting of the Ugric fraternity name **mańćɜ*, and the Finno-Ugric standard word *er(i)*, meaning 'man, human being'. According to Rédei (1988: 866-867), the Ugric **mańćɜ* is genetically related to the Ugric verbal noun **mańćɜ-* ~ **mańćɜ*, meaning 'story, tell a story'.

Róna-Tas has come up with a new interpretation. In a paper delivered in Düsseldorf in 1984 (1988: 131), and then in the inaugural address delivered at the Hungarian Academy of Sciences (1993: 19-21), he pointed to the problematic onomastic assumptions of the earlier accounts and convincingly demonstrated the implausibility of the self-denomination *mańši* 'man'. The ethnonym *magyar*, he argued, can be traced to a compound consisting of two ethnonyms, a compound whose original phonological pattern was probably *mańć er*.[16]

Somewhat the same kind of argument has been made in recent years by János Gulya. In a personal letter dated March 25, 1994, he made the point that the tribal name *Megyer* was probably ultimately the Khazar form of the Finno-Ugric (Ugric) name *mańć-er* in Hungarian.

What has made so plausible the notion that *magyar* ~ *Megyer* is Finno-Ugric in origin is not, I think, the fact that Hungarian—the lan-

[16] This ingenious new etymology of Róna-Tas' calls for expanding the Ugric family of languages, i.e., for adding a fourth member (Er) to the three established members (Hungarian, Vogul and Ostyak). The problem is that nothing he says substantiates the existence of this fourth member.

guage of the Magyars—is a Finno-Ugric language, but the fact that the initial *m-* of the ethnonym seems, at first glance, to rule out the possibility of its Turkic origin, the only logical alternative, given the historical background and the established origins of the other tribal names. Of course, the Hungarians, considering they spoke a Finno-Ugric language, could have adopted a name of foreign origin, as did, for instance, the Bulgarians, the Tatars, the Turks, and the Russians. But anyone who knows anything about Turkic languages will know that no word of Turkic origin ever has an initial *m-*.

Let us examine the names *magyar ~ Megyer* a little more closely. The relationship of the two phonological patterns to one another has, as we have seen, been satisfactorily clarified (Róna-Tas 1993: 22). The original form was a combination of back sounds and non-back sounds. The form *madžer*, presumably the immediate antecedent of *magyar ~ Megyer*, can be traced back to an earlier **mančer* or **mandžer* form. It would be difficult to overstate the significance of the fact that the original pattern was a combination of back sounds and non-back sounds: In a language attuned to vowel harmony—as was Ugric, but also every one of the Turkic languages—a combination of back sounds and non-back sounds is always an indication that the word at issue is a compound.

The question, then, is whether it is in fact the case that the phonological pattern **mančer* or **mandžer* cannot have anything but a Finno-Ugric etymology. When the question is put this way, the answer has to be "No". We can have an initial *m-* in a word of Turkic origin if the word has a nasal consonant. (This, too, is something that anyone who knows anything about Turkic languages will know.) For in such cases, the *m-* can go back to an earlier **b-*, which *can* be in initial position in words of Turkic origin.

What this means is that if the form **mančer* or **mandžer* were, in fact, of Turkic origin, the original phonological pattern would have had to be **bančer* or **bandžer*.

Before going on to suggest the form that a Turkic etymology might take, I should like to note that the ethnonym *bančer* or *bandžer* that we have arrived at does not really require the * which marks reconstructed linguistic forms, for the simple reason that the word does occur in the sources.

In the Middle Persian sources used by the Arabian chronicler Ṭabarī, and in Ṭabarī's own writings of between 915 and 923,[17] there is a people referred to by the letters BNǰR. This people, Ṭabarī tells us, lived in the Caucasus in the 6th century in association with three other "Turkic" peoples. Since Marquart published his findings (1903: 490-491), the people referred to as BNǰR (which can be read as *BaNǰaR*, or *BäNǰär*, or *BaNČaR*, or *BäNČär*, etc.) has been identified with the *Burǰan*, i.e. the Bulgarians. What has allowed this identification is the fact that the graphemes *wāw, nūn*, and *rā* are represented by one and the same character in Middle Persian (Pehlevi).

There are, I admit, a number of difficulties with introducing Ṭabarī's BNǰR into the data used to establish the origin of *magyar ~ Megyer*. For one thing, the 6th century seems rather late to have an *-n-* in a word denoting the ethnonym *magyar*. The denasalization of the Finno-Ugric (Ugric) phoneme **-nč- (-ńć-)* and the voicing of the affricate (which, incidentally, must have occurred prior to the *-n-* > *-Ø-* shift) took place quite some time before the 6th century (Bárczi 1967: 103-104). These reservations notwithstanding, I think that this chronological difficulty is by no means insuperable, and that it would be a mistake to ignore the possibility that BNǰR might shed some light on the etymology of *magyar ~ Megyer*. We know for a fact that the Finno-Ugric (Ugric) **-nč- (-ńć-)* > Late Ancient Hungarian *-dž-* > Old Hungarian *-gy-* shift did not take place across the board: Bárczi (1967: 104) gives Hungarian *hangya* (< Finno-Ugric **kuńće ~ kuće*: Cf. Rédei 1988: 209-210) as an instance of the ancient *-n-* having been retained: *Hangya*, the modern vernacular for 'ant', has completely displaced the "regular" form, *húgy* 'ant'. If Ṭabarī's BNǰR does, in fact, refer to the Hungarians—a possibility that cannot be ruled out, given that we have variants of the form *hangya ~ húgy*—then it would be the earliest known reference to them: a reference, to boot, which places them in the Caucasus, in the company of the Khazars and the Alans, precisely the setting and the company in which we would expect the Hungarians to show up, assuming we do not subscribe to the—altogether unsubstantiated—theory that the land of the Bashkirs was their ancestral home.

To return now to the possibility of a Turkic etymology for the ethnonym *magyar* ~ tribal name *Megyer*: I suggest that the words origi-

[17] For Ṭabarī and his sources, see Ludwig (1982: 32-37).

nated in the Turkic compound *ban ǰer*, meaning 'chief place', 'central place'.

The first part of the compound has been discussed at length by Róna-Tas (1992: 121-126) in a study dealing with the Chuvash word *mănă, măn*, meaning 'big / grand, wide, fat, basic, original, major, old, elder, dense, deep (of sound)'. Róna-Tas traces the Chuvash word directly to the form **mon*, an ancient loanword of Chinese origin in Proto-Chuvash. He also discusses the form *ban* > *man*, meaning 'big / grand, chief', an attested form in Turkic, which can be traced to the same Chinese etymon as the Proto-Chuvash **mon*, and which, presumably, entered Old Turkic through Tocharian mediation. Old Turkic *ban* meant 'ten thousand' (Clauson 1972: 346a); its acquiring the meaning 'big / grand, chief' in Turkic seems to be the result of an internal development. The *ban* form of the word *man*, as Róna-Tas, too, points out, occurs in Kāšġarī in two geographic names: *Man Qïšlāġ*, "Name of a place in the country of the Oghuz", and *Mān Känd*, "Name of a city which was near Kāšġar; it is now in ruins" (Dankoff & Kelly 1982: 348 and 1984: 229); but we also find the form *man* in the name *Man Kermen*, the name Kiev was called under Mongolian rule. *Man Kermen*, which is designated as Kipchak in *The Secret History of the Mongols*, was probably the translation of the Slavic "Velikij Gorod", meaning 'Big / Grand Town'.

The second element of the compound *ban ǰēr* is a well-known old Turkic word. In Eastern Old Turkic, it probably had the phonological pattern *yēr* (Clauson 1972: 954ab); in Western Old Turkic, the phonological pattern *ǰēr*. It means 'earth, place, position, area, country'.

The Turkic name *Banǰer* > *Menǰer*, meaning 'Chief Place', 'Central Place' regularly changed to *Medžer* in Ancient Hungarian. As a tribal name, it must be dated among our first, most archaic tribal names: *Nyék, Kürt* and *Gyarmat*.

For the moment, the etymology of the tribal name *Megyer* outlined above is meant to be no more than a working hypothesis. Like every proposed etymology having to do with the names of the Hungarian tribes—and with tribal names in general—it raises a number of questions that go beyond etymology, historical questions in particular. These questions will need to be addressed, primarily by historians.

Lastly, let us consider the pattern of meanings that will emerge on the assumption that all Hungarian tribal names are of Turkic origin: 'Hedge' (*Nyék*)—a tribe of guardsmen, who, in earlier times, patrolled the borders of the tribal confederation; 'Chief Place' (*Megyer*)—the Chief

Tribe before the change of dynasties; 'Abreast—Behind' (*Kürtgyarmat*)—formerly the vanguard and rear guard of the *Megyer* tribe, merged to protect the new Chief Tribe after the change of dynasties; 'Tarxan' (*Tarján*)—the new Chief Tribe; 'Little Flank / Face' (*Jenő*)—the flank or vanguard of the new Chief Tribe; 'Back; the Last' (*Kér*)—the rear guard of the new Chief Tribe; 'Fragment' (*Keszi*)—the remnant of a former major tribe.

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The Turkic strata of Salar: An Oghuz in Chaghatay clothes?

Arienne M. Dwyer

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As is often typical of geographically peripheral languages, Salar is both highly conservative (of premodern Turkic features) and innovating (through language contact). Its Turkic features represent several historical layers which reflect contact with different Turkic groups. With such a complex synchronic picture and with gaps in the historical record, Salar has been a difficult language to classify. This paper presents new evidence against a genetic affiliation of Salar with modern Uyghur (i.e. Southeastern Turkic), and evidence for (1) a genetic relationship with the Oghuz languages (Southwestern Turkic), and (2) sustained contact with South Siberian and Qïpchaq Turkic.

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1. Overview

Salar (*salar gahŧa*) is a mixed language of Turkic origin with close to 70,000 speakers.[1] It is spoken primarily on the northern edge of the Tibetan plateau, in the modern-day Chinese province of Qīnghǎi. It is also spoken in neighboring Gānsù province and to the northwest in Eastern Turkistan (the Xīnjiāng Uyghur Autonomous Region).

[1] Official Chinese population statistics for 1990 record the total number of Salars as 88,697 (Bannister, *China's changing population*: 322-323, cited in Gladney: 224). However, the actual number of Salar *speakers* is probably closer to 70,000: most of those approximately 20,000 Salars who have settled in cities now speak Chinese or, for the 3700 Salars in Xīnjiāng, Uyghur.

Historical, ethnographic, and linguistic evidence suggests that the Salars originated in Western Turkistan, in the area south of present-day Samarkand. Salar is most likely related to modern Salor-(Salïr-) Turkmen. While no known historical record directly links the Salors to the Salars, the legendary Salar ancestral leader Garaman is attested as a descendant of the Oghuz khan's grandson Salïr.[2] From the *Ta'rīkh-i Rashīdī* and Chinese accounts, we also know that the Salars arrived in Amdo Tibet in the 14th c. C.E.[3] They may well have been a contingent of the Mongolian army, given the timing and circuitousness of their migration, and given the relatively high status they enjoyed throughout the Mongol Yuán dynasty (Saguchi 1986: 112). In Amdo Tibet, the Salars intermarried with local Tibetans, and later with Chinese Muslims (Huís). They also adopted many local customs and a settled agricultural way of life. As a result of such sustained intercultural contact and blending, the Salar language evolved into a mixed language, adopting elements from Chinese and Tibetan at all levels of language: Phonology, morphology, syntax, and the lexicon.

Due to extensive language contact down to the present day, both the development of the Salar language and its synchronic phonology are complex. Its oldest and most basic linguistic stratum, Turkic, is overlain with heavy Chinese and Tibetan adstrata. The Turkic stratum of

[2] Polyakov: 96; *Encyclopedia of Islam* 4: 120, cited in *Sālāzú shǐliào jìlù*: 3. The twenty-four Oghuz clans recorded in both Mahmūd al-Kāshgharī (11th c.) and Rashid ad-dīn (14th c.) were descended from Oghuz khan. (Note, however, that al-Kāshgharī's "Oghuz" grouping was lexically and morphology quite different from the modern languages described today as "Oghuz" (see Dankoff & Kelly 1982-1985).) Oghuz khan had six sons, each of whom had in turn four sons. Both authors list the names of the twenty-four grandsons, which include *Salγur* (according to al-Kāshgharī) or *Salor* (according to Rashid ad-dīn). The differing pronunciations of the same name simply reflects the loss of medial *-γ-*, a feature typical of Oghuz-Turkic, and the alternation of the vocalism *u ~ o ~ ï*.

[3] The *Ta'rīkh-i Rashīdī* mentions the Hūchū Salar, i.e., the Salar living within Hézhōu, China (chapter 89, cited in Saguchi 1986:55). Among Chinese sources, the *Míng shǐ* [History of the Míng dynasty], completed in 1735, dates the arrival of the Salars in Xúnhuà as the third year of the Hóngwǔ reign (1370) (*Míng shǐ*, cited in Mǐ 1981:60).

Salar is itself composed of Oghuz, Qïpchaq, and Southeastern Turkic layers.

There are two dialects of Salar, Eastern (Qīnghǎi, Gānsù) and Western (Xīnjiāng) Salar. The presence of Salars in the Ghulja area of Xīnjiāng is due to several small migrations of Salars from Qīnghǎi to Xīnjiāng in the late 18th and late 19th centuries.[4]

Major previous studies on Salar include the following: grammar and texts (Tenišev 1964, 1976a); origin and evolution of the language (Drimba 1968, Hahn 1988); lexicon (Lín 1992); phonology (Dwyer 1996). The current study is based on field work during 1991-1993 in China.[5]

Modern Salar is fundamentally a mixed language. It is a creole in the sense that structures shifted from other languages have been incorporated into Salar and passed on to the next generation of Salar speakers. Any holistic study of Salar (such as a grammar) must take these language-contact features into account. While the present paper focuses only on the clarification of the Turkic elements in Salar, it should not be inferred that Salar consists only of Turkic features. To do so would be to overlook half of the language.

2. Salar stratigraphy and the classification of the Turkic languages

When a language is mixed, such as Salar, is *classification* into a branch still useful? I would maintain that it is indeed useful for anchoring a

[4] While Eastern Salar has Chinese and Tibetan adstrata (especially in the lexicon and in phonology), Western Salar has Uyghur and Qazaq adstrata. For a detailed comparision of Eastern and Western Salar morphosyntactic adstrata, see Dwyer 1995a.

[5] The bulk of the ethnographic and linguistic data in this article was collected by the author during fieldwork on the Salars in Qīnghǎi, 1991-1993. I am particularly indebted to the Qīnghǎi Education Commission, to Xīnjiāng University, and most of all to many Salar individuals for making this work possible. The research was generously supported by Fulbright (U.S. Department of Education) and C.S.C.P.R.C. (U.S. National Academy of Sciences) fellowships, 1991-92, and by a U.S. Department of Education Foreign Language Area Studies fellowship, 1992-1993; the analysis was supported in part by a U.S. National Endowment for the Humanities Dissertation Grant during 1994-1995. I am indebted to Jerry Norman, Marcel Erdal, and Claus Schönig for comments on earlier drafts of this article.

language's origins. However, at least equal attention must be paid to its other components. The geological metaphor of strata layered one on top of another suggests that languages consist of the sum total of accreted elements over time: Languages cannot be described merely in terms of their base, or language of origin; rather, they must be described in terms of all their elements.

Languages in contact usually adopt elements of other languages. When contact is heavy and sustained, as in the case of the once-mobile Salars, then such shifted and borrowed structures are nativized. After a few generations, it no longer makes sense to discuss whether such a language is presently "Oghuz" or "Qïpchaq", since synchronically, it may well include features of several groups. We can only say that a language is, for example, Oghuz *in origin,* with "affinities with" or "features shifted from" languages X and Y.

Languages in isolation and / or those which have sustained heavy contact (such as Salar and Sarïgh Yoghur) have been problematic for traditional classificatory schemata. These "minor" languages have been termed peripheral or "transitional", since they possess features of two or more "major" groups. The classification of the Turkic languages has been based overwhelmingly on phonetic criteria. Early classifications by Samojlovič (1922) were modified slightly by Ramstedt (1957), Benzing (1959), Menges (1959), Poppe (1965), Baskakov (1969[2]), and Tekin (1989). The current paper, however, makes reference to important morphological and lexical criteria as well.

3. The position of Salar in the Turkic language family

The two Turkic language groups relevant to the classification of Salar are Southwestern (Oghuz) and Southeastern Turkic. Over the years, Salar has been considered to be: (i) an independent Northern / Southeastern Turkic (Qïpchaq / Chaghatay-type) language (Korš 1910, Samojlovič 1922); (ii) an Eastern (Chaghatay-type) Turkic language (Grenard 1898, Poppe 1953, Menges 1959, Pritsak 1959, Thomsen 1959, Gabain 1963; also Ramstedt 1957 and Räsänen 1969); (iii) an Oghuz language with Qïpchaq and Sino-Tibetan adstrata (Drimba 1968, Tenišev 1976a, Hahn 1988).

In this section, we present and critique the prinicipal arguments for each hypothesis. Arguments for a particular classification center around the presence of a feature X which is unique to Salar and that Turkic branch, to the exclusion of other Turkic branches. Not surpris-

ingly, arguments *against* previous classifications are based on demonstrating the non-uniqueness of feature X to that Turkic branch.

Salar has the distinction of being the easternmost modern Turkic language in use. The Turkic speakers geographically closest to the Salars are the Sarïgh Yoghur ("Yellow Uyghur"), three mountain-ranges and as many days' travel away. Geographically, it appears plausible that the Salars could be an isolated Uyghur group. However, the evidence presently available points to a basic affiliation with the modern Oghuz languages, and a later acquisition of features from Qïpchaq, South Siberian, and Southeastern Turkic (here, Uyghur).

3.1. Salar as a "Northern" or "Eastern" Turkic language

In the early classifications of Korš (1910) and Samojlovič (1922), Salar was grouped both with "Eastern Turkic" ([New] Uyghur, Özbek) and with Qïpchaq (e.g. Qazaq, Qïrghïz). Drimba (1968:202), marshaling evidence against this hypothesis, notes that the Salar features cited as unique to North and Eastern Turkic (final *-γ* in e.g. *taγ* 'mountain'; post-consonantal *γ* as in *qalγan* 'left behind') are found in other Turkic languages. Moreover, several typical Northern Turkic features are absent in Salar (e.g. Old Turkic *d* > *d*); Salar has *ajax* 'foot').[6]

3.2. Salar as an "Eastern" Turkic language

Until the late 1960's, the prevailing view in Turcology was that Salar was closely related to or even a dialect of modern Uyghur. Grenard (1898), Poppe (1953), Pritsak (1959), Benzing (1959), Menges (1959), Thomsen (1959), and von Gabain (1963) all asserted or implied that Salar was closely affiliated with modern Uyghur. Benzing, Menges and von Gabain classified Salar with Uyghur; Pritsak and Poppe claimed Salar was an Uyghur isolate; Thomsen (1959) grouped Salar with its closest geographic neighbor, Sarïgh Yoghur (Drimba 1968: 203).

Poppe (1953) exemplifies the Eastern-Turkic hypothesis for Salar. As evidence for the claim that Salar was an aberrant dialect of modern Uyghur, he cited four phonological features common to Uyghur and Salar:

[6] Salar has however **d* > *d* in at least one form, probably a borrowing from Northern Turkic: *jalaŋ adax* 'barefoot'.

1. *-j-* and *-γ* (from **d* and **γ*), i.e., both have *ajaq* 'foot' and *taγ* 'mountain' (Common Tkc **adaq*, **taγ*); (OT *ajaγ*).[7]
2. Both languages have initial *j-* (*jol* 'road'), not ʤ- as in Qïpchaq (ʤol 'road') (OT *jol*).
3. Both have *ʃ* while Qïpchaq has *s* (*taʃ* vs. *tas* 'stone', cf. CT **tı̯aɨ* (Poppe),[8] (OT *taʃ*).
4. Both often delete *r* in syllable-final position (e.g. *ɛtɛ* 'morning', OT *ärtä*).

Even by Poppe's own classification above, this evidence does not rule out the possibility of Salar being a Southwestern (Oghuz) Turkic language. Poppe himself notes that the Salar verb suffix *-miʃ* is generally not found in the easternmost Uyghur dialects. This suffix became one crucial piece of evidence in the other main view on Salar, that it belongs to the Oghuz Turkic group.

3.3. Salar as an "Oghuz" language

The Oghuz Turkic languages are said to possess the following phonological features: **-γ* > *γ* in initial syllable codas, e.g. Tkm. *daγ* 'moun-

[7] OT = Old Turkic. Other abbreviations used here are the following: * = Reconstructed as ... ; > = develops from (diachronically); < = is derived from (diachronically); <...> = orthographic form; ° = default epenthetic vowel (e.g. /var/ + -°ʃ → [varɨʃ]); Anat = Anatolian; Az = Azerbayjani; Chag = Chaghatay (Poppe 1953); Chuv = Chuvash; CT = Common Turkic; C.Tv. = Tuva spoken in China; Kāš. = *Dīvān luγāt at-turk*, Mahmud al-Kāshgharī's 11th century dictionary of Southeastern Turkic; ET = Eastern Turki (Poppe 1953); E. Tkc = Eastern Turkic; Mo = Standard Khalkha Mongolian; OT = Old Turkic (pre-13c. Turkic) (Räsänen 1969, Poppe 1953); poss = possessive (e.g. IIIposs = third-person possessive); Räs = Räsanen 1969; Qaz = Qazaq (Kazakh); Qïr = Qïrghïz (Kyrgyz); SY = Sarïgh Yoghur (Sarï Yugur; "Yellow Uyghur"; Xībù Yùgùyǔ); Ten = Ė. R. Tenišev's work on Salar; Tkc = Turkic language family; Tkm = Turkmen (Tekin et al. 1991); Tksh = modern standard Turkish (Redhouse 1890/1974); S.Sib.Tuv = South Siberian Tuva; XJ / C. Tuva = Xinjiang (Chinese) Tuva; Uy = modern standard Uyghur (Xīnjiāng dàxué 1992); Wmo = Written Mongolian; Xaq = Xaqas (Khakas) (Tenišev 1984). In addition, capital letters for obstruents denotes non-specification for voicing, e.g. *-DZi* = [-ʤi ~ -ʧʰi]; for post-palatal obstruents it also denotes non-specification for backness, e.g. *-Q* = [-kʰ ~ -qʰ]. For vowels, it denotes non-specification for backness, e.g. *-A* [-a ~ -ə].

[8] The so-called Common Turkic **l*^{2} in **tı̯al*^{2} is one of two reconstructed varieties of **l*.

tain'; Std. Turkish (*dağ* [da:] 'id.', [*dayı*] 'mountain-3.sg.poss.'), but *-*G* > ∅ in non-initial syllable codas, e.g. OT *jadaγ* 'on foot'; Tksh., Tkm. *jaja* 'id.'; Tksh. *ulu* 'great, high'; many **t* > *d* and **k* > *g* (e.g. Tkm. *gel-* 'come'); **ð* (=**d*) > *j* (e.g. Tkm. *qujruq* 'tail'), as in Qïpchaq and modern Uyghur. In addition, it is assumed that a hypothetical pre-Oghuz language must have preserved Old Turkic phonemic vowel length, since vowel length distinctions exist in Turkmen. However, since no other Oghuz language today preserves Proto-Turkic vowel length, we cannot consider this an Oghuz feature *per se*.

The theory of Salar as an Oghuz language was first proposed by Malov (1957), followed by Tenišev (1963), who also noted the influence of Southeastern Turkic languages. Drimba (1968) suggested that Salar was an Oghuz language with a Chaghatay adstratum. Hahn (1988: 268) has proposed that two adstrata are superimposed on Salar's Oghuz base: A "medieval stratum" consisting of Chaghatay and Tuva-Khaqas features acquired during migration eastward across Central Asia, and an "eastern stratum" (consistent with Tenišev's analysis) of features acquired more recently by prolonged contact with Sino-Tibetan and Mongolic peoples.[9]

Salar possesses certain phonological and morphosyntactic features, as well as lexical items, which, it is claimed, are found exclusively in the Oghuz languages. To date, the major evidence for an Oghuz basis of Salar is its consonantism, the presence of the perfect / indirective suffix *-miʃ* and certain Oghuz lexical items. Each feature will be examined in turn below; we will find that some of these features reflect merely the preservation of Old Turkic archaisms rather than a relationship with the modern Oghuz languages.

[9] While such a three-strata theory does provide an elegant explanation based on the existing linguistic evidence, historically it may be more problematical. If the Salar migration from Transoxiana to Tibet was indeed part of Mongol troop movements, it is doubtful that the Salar troops stayed long enough in Tuva-Khaqas speaking areas to have acquired an entire new stratum to their language. The Salars more likely simply borrowed individual lexical items.

4. Oghuz elements in Salar

4.1. Stop voicing (consonantism)

There are two interrelated issues with regard to the voicing of initial obstruents: Their correspondence, if any, to a possible Orxon Turkic initial obstruent voicing, and the theoretical issue of whether to describe the surface contrasts of initial obstruents in terms of voicing or aspiration. In sum, if we posit an initial obstruent voicing distinction in Orxon-Turkic, then it is preserved in a certain set of words in the Oghuz languages. In other Turkic languages including Salar, this has been reanalyzed as an aspiration distinction. While as a result Salar "sounds Chinese", harmonic processes of consonant suffixes behave in a typically Turkic fashion. For this reason, the binary distinction of initial obstruents in Salar is best described as a voicing distinction, as I have argued extensively elsewhere (Dwyer 1996).

Taking the diachronic issue first, we note that the Oghuz languages have a subset of voiced initial consonants which correspond to voiceless homorganic initial consonants in other Turkic languages. This is also a feature of Salar. Words that have exclusively initial *t* in Uyghur, for example, correspond to a set of cognate words with initial *d*, and another set with initial *t* in Turkmen (Turkmen *daʁ* 'mountain', but *tut-* 'to hold', cf. Uyghur *tay*, *tut-*, Salar *day*, *ʧut-*).

Why this apparent distinction was preserved in certain Oghuz words and not others appears arbitrary. Some have theorized that these voiced initials were preserved when followed by another voiced consonant (e.g. Turkmen *daʁ*, *tut-*), but there are many counter-examples (e.g. Tkm. *dyʃ* 'dream'). Others have suggested that initial obstruents are voiced before front vowels, [10] e.g. Tkm. *gel-* 'to come', *dørt* 'four'; but a few counter-examples can also be found, such as Tkm. *køp* 'much', *tyket-* 'to end'. This may indicate that Old Turkic actually contrasted **d* and **t*, although this distinction is not (or not consistently) reflected in the pre-13th century Turkic orthographies.[11]

[10] Excluding onomatopoetic words, such as Turkish *kekele-* 'to stammer'.

[11] None of the orthographies used for pre-13th century Turkic *consistently* represented voicing contrasts in words of Turkic origin. Even with scripts which allowed represention of a four-way contrast in onsets (such as the Brāhmī and Ti-

In addition to the Oghuz languages[12] and Salar, Tuva and Sarïgh Yoghur[13] also have this dual-reflex feature. However, in Salar and Sarïgh Yoghur the phonemic voicing distinction (*t-d*, *k-g* etc.) is realized phonetically as an aspiration distinction. Menges (1995[2]) and others have suggested that this reflects an Old Turkic fortis-lenis distinction. Nonetheless, the underlying contrast is one of voicing; e.g. Tuva *gel-* 'to come', *kelin* 'bride'.

In the following chart, the initial voicing contrasts in Oghuz are compared with Orxon Turkic, Salar, and Southeastern Turkic. (Note that Orxon Turkic did not contrast initial consonants for voicing; initial *p is unattested in Orxon Turkic.)

Table 1. Voicing contrasts of initial Oghuz obstruents (based on Menges 1995[2])

Orxon Turkic	Oghuz-Turkic	Salar	Southeastern Turkic
**b*	*b, v*	/b/, /p/, /v/	*b, p*
**t*	*t, d*	/t/, /d/	*t*, rarely *d*
**k/q (*K)*	*k, g*	/k/, /g/	*k*
**ʧ*	*ʧ*	/ʧ/	*ʧ*

A major subset of lexical items with initial phonemically voiced stops /b- d- g- ɢ-/ in Salar correspond to *voiced* initials in the Oghuz languages, but largely to *voiceless aspirates* in non-Oghuz Turkic languages (represented here as *p*, *t*, *k* and *q*).

The underlying Salar forms are given below (parentheses indicate non-cognates):

betan scripts used), voicing contrasts were only systematically represented in *non-Turkic* lexemes.

[12] Sporadic initial consonant voicing also occurs occasionally in the Qïpchaq languages; e.g. Qumïq *ǵiʃi* 'person', cf. Qaz., Qïrgh., Turkish, Özb. *kiʃi*; Qumïq *ǵel-* 'to come', *ǵør-* 'to see', *ǵir-* 'to enter', but *kir* 'mud, filth' (Tenišev 1984: 195).

[13] Tuva is part of the South Siberian Turkic group; and Sarïgh Yoghur is probably related to South Siberian Turkic. On the latter, see Gěng & Clark 1992.

Table 2. Initial stop voicing in some Turkic languages[14]

CT	OGHUZ			SIBERIAN TURKIC			QĪPCH	E. TKC	GLOSS
	Salar	Std. Turkish	Turk-men	Sarïgh Yoghur	S. Sib. Tuva	XJ Tuva	Qazaq	Uyghur	
*b	*bitir-*	*bitir-*	*bitir-*	*puttur-*	*bydyr-*	*bydy-*	*bitir-*	*pyttyr-*	'finish'
*b	*bol-*	*ol-*	*bol-*	*bol-*	*bol-*	*bol-*	*bol-*	*bol-*	'become'
*t	*tut-*	*tut-*	*dut-*	*tut-~tuht-*	*tut-*	*dut-*	*(usta-)*	*tut-*	'grasp'
*t	*daʃ*	*taʃ*	*da:ʃ*	*tas~taʰs*	*daʃ*	*daʃ*	*tas*	*taʃ*	'stone'
*k	*gøz*	*gøz*	*gøz*	*køz*	*(karak)*	*(karak)*	*køz*	*køz*	'eye'
*q	*ɢiʃ*	*kiʃ*	*ɢiʃ*	*qəs*		*kɤʃɤn*	*qɨs*	*qɨʃ*	'winter'
*ʧ	*ʧɨx-*	*ʧɨk-*	*ʧɨq-*	*(un-)*	---	*(ynø)*	*ʃɨq-*	*ʧɨq-*	'emerge'
*ʧ	*ʤɨʤex*	*ʧɨʤek*	*gyl*	*ʧyʤyk*	*ʧeʧek*	*ʤeʤek*	*ʃeʃek*	*ʧeʧek*	'flower'

As can be seen above, the voicing of initial consonants in words even within each language branch is not entirely consistent; in South Siberian Turkic, for example, Xinjiang Tuva has *dut-* but Literary South Siberian Tuva has *tut-* 'to hold'. Within the Oghuz languages, a similar inconsistency exists, e.g. Turkish *gymyʃ*, Xasarli Turkmen *ǵymyʃ*, but Literary Tkm. *kymyʃ* 'silver' (Tenišev 1984: 194). Comparing Turkmen and Sarïgh Yoghur, which both have underlying voicing, we have Turkmen *ʧatla-* 'to chop', but Sarïgh Yoghur *dzạhp-*.

Next, there is the synchronic question: Do such initials contrast underlyingly in aspiration or voicing? Salar has underlying /b d g ɢ/, realized initially as voiceless unaspirated [p t k q] or as semi-voiced [ʙ ᴅ ɢ]. In Salar, I would suggest that [+voice] is phonemic and [-voice, -aspirated] is phonetic. In most Turkic languages, obstruents are said to be distinguished by voicing (voiced vs. voiceless aspirated). The stops of most Tibetan and Chinese dialects are said to possess an aspiration distinction (voiceless unaspirated vs. voiceless aspirated). The two east-

[14] The examples for this and subsequent tables are all drawn from the following sources unless otherwise indicated: Turkmen: Tekin et al. (1995); Azerbayjani: Azizbekov (1985); Turkish: Redhouse (1890/1974); Sarïgh Yoghur: (Léi 1992); S.Sib. Tuva: Tenišev (1968); Xinjiang (XJ) Tuva: Chén et al. (1985); Qazaq: Nurbek (1990), Axmetova et al. (1974); Uyghur: Xīnjiāng dàxué zhōngyǔwén xì (1982).

ernmost Turkic languages, Salar and Sarïgh Yoghur, are located within the Sino-Tibetan cultural area. They are possibly unique in the Turkic family in that the distinction of noncontinuant obstruents is based (on the surface at least) on aspiration. Examples from the Salar series *p*, *p*^{h}, *t*, *t*^{h}, *ʧ*, *ʧ*^{h}, *k*, *k*^{h}, *q* and *q*^{h} in initial position follow:

[p]*ureʃ* 'wrinkles'	[p^h]*urni* 'nose'
[t]*ox* 'lid'	[t^h]*ox* 'chicken'
[k]*illa-* 'to be overly heavy'	[k^h]*illa-* 'to be hurried, urgent'
[q]*uʃ* 'bird of prey'	[q^h]*us-* 'to vomit'
[ʧ]*eŋna-* 'to steam'	[ʧ^h]*eŋna-* 'to become, turn into'

The distinction of noncontinuant obstruents on the basis of aspiration in Eastern Salar has resulted in extremely strong aspiration in the aspirated series, as in Sino-Tibetan. Thus the distinction in Salar appears to resemble Sino-Tibetan system, not the Turkic one.

In the small body of literature on Salar, most researchers have assumed that Salar (and Sarïgh Yoghur) obstruents are distinguished on the basis of aspiration, whereas obstruents of all other Turkic languages have a voicing distinction.[15]

This question of voicing vs. aspiration has been deemed so basic and obvious as to not merit attention: Only voicing is assumed phonemic in all other Turkic languages besides Salar and Sarïgh Yoghur. Here, however, I will entertain the hypothesis that the Eurasian continent is actually a *phonological continuum*, with a clear obstruent voicing distinction in the languages of the west (e.g. Turkish, or Russian), a clear aspiration distinction in the east (e.g. Mandarin Chinese), and a mixed system in between (e.g. Tuva or Salar).

[15] See, for example, Tenišev (1976a: 57-60). Salar data is contrasted with several northwestern Chinese dialects and with Amdo Tibetan. Tenišev concludes that as a result of this language contact Salar has completely adopted the Chinese distinction based on aspiration. Poppe, on the other hand, assumed that Salar was an Uyghur dialect. He found it unusual that unvoiced Common Turkic stops develop into voiced phonemes (e.g. **q* > *G*), although this phenomenon "is common in Western Turkic" (1953: 443). Kakuk (1962:165), perhaps at the suggestion of the Salar lingiust Hán Jiànyè, her primary informant attributes these word-initial contrasts instead to devoicing (Lín & Hán 1986^2: 215, Lín 1985: 1).

Why would this be a likely hypothesis? Most dialects of Chinese and Tibetan clearly have a surface aspiration distinction. Mongolic and Turkic languages are generally described as having a clear voicing distinction, but in fact Mongolian and Uyghur initial voiced obstruents, for example, often surface as voiceless or semi-voiced (Jerry Norman, personal communication re Mongolian). I am suggesting that the area which encompasses Western China, Eastern Turkistan, and South Siberia is likely a voicing : aspiration contact zone. I further suggest that Salar has an underlying voicing distinction which has been obscured on the surface by the strong local influence of Sino-Tibetan aspiration.

Phonetically, Salar and Sarïgh Yoghur obstruents seem clearly [±aspirated]; but a voicing distinction in the other Turkic languages on the eastern periphery is much less clear-cut. Most studies of the Turkic languages assume categorically that obstruent distinctions are based on voicing; whether this view is based on acoustic reality or influenced by *orthographic* voicing distinctions in the Cyrillic and Arabic Turkic scripts remains to be seen.

Since obstruents contrast underlyingly in *voicing*, obstruents here are represented as *p*/*b*, *t*/*d*, *ʧ*/*ʤ*, etc as follows:

Table 3. Representation of initial stop voicing in Salar

Underlying	Represented as	Surface	Gloss
/bitir-/	*bitir-*	*pɪtʰtr-*	'to finish'
/purun/	*purnɨ*	*pʰurnə*	'nose'
/tut-/	*tut-*	*tʰutʰ-*	'to grab, hold'
/daʃ/	*daʃ*	*taʃ*	'stone'
/gøz/	gøz	*køz*	'eye'
/gɨʃ/	*gɨʃ*	*qɪʃ*	'winter'
/ʧat-/	*ʧat-*	*ʧʰaʧʰ-*	'to chop'
/ʤiʤek/	*ʤiʤex*	*ʤiʤeç*	'xyloid flower'

The underlying Salar forms match those of Turkmen. Yet there are at least two other languages which, like Salar, possess this set of voiced initial stops. Neither Tuva and Sarïgh Yoghur are Oghuz languages. Yet both have Salar-type (i.e. Chinese-type) phonetic implementation rules: The surface forms in Sarïgh Yoghur and Tuva are distinguished primarily by aspiration, not voicing. In the case of Tuva, it appears that one subset of stop-initial words is distinguished on the basis of voic-

ing, another by aspiration. (Studies of Tuva have not consistently indicated these distinctions.) Until we have more ample data on Tuva, we can tentatively conclude that Tuva stops may be of a transitional type, whereby Chinese / Tibetan-type phonetic rules are inconsistently applied to the lexicon.[16]

Does the fact that the subset of voiced-initial words in these languages largely coincides indicate a common origin or the later acquisition of a regional feature? Salar consonantism provides evidence to reinforce the probable direct relation of Salar to the Oghuz languages. Although these features are also found in non-Oghuz languages (Tuva and Sarïgh Yoghur), only Salar has in addition the Western Turkic adjectival suffix *-lI*[17] (as in *taγlï* 'mountainous', *dahli* 'sweet', cf. Tksh. *tatlï*; Az. *dadlï*; Uy. *tatlïq*). This constitutes Poppe's third classificatory criterion, **lVγ > -lï, -lu*).[18]

Here I hypothesize that stop voicing *does* support the Oghuz hypothesis. Nonetheless, with some more precise transcriptions of Tuva and Sarïgh Yoghur data, we could see whether or not these two languages, like Salar, have an underlying voicing but surface aspiration distinction. If so, then the latter phonetic implementation rules have become a regional feature of the Eastern Central Asian area.

4.2. Other phonological features

1. Weakening of **b > v*: A subset of monosyllabic verbs with initial **b* are spirantized to *v-* in Salar. This spirantization also occurs in West Oghuz (Turkish and Azerbayjani), and Khalaj (a Turkic isolate). In Turkmen, **b > v* is sandhi-conditioned, which suggests a likely path of development for this sound change in the other Oghuz languages.

[16] Most scholars (e.g. Menges 1995[2]) see Tuva as having a voicing distinction. These voiced initials correspond to Mongolic and Tungusic **d-*. This may indicate that the less voiced, (i.e. voiceless unaspirated) set in Tuva reflects a contact-induced change (or remnant) under Mongolic influence.

[17] Western Turkic includes Oghuz, Qïpchaq (except Qïrghïz), and Chuvash (Schönig, in this issue). Hahn (1988: 261-262, 268) suggested that *-lI* was exclusively an Oghuz feature.

[18] **adaq* is also mentioned, but this feature is also not exclusive to Oghuz.

**bar* 'to have, to be'	Sa. *var* ~ *bar*, Anat., Az. *var*, E. Tkc *bar*
**bär-* 'to give'	Sa. *ver-*, Tksh. *ver-*, Az. *vär-*, cf. Öz. *ber-*
**bar-* 'to go'	Sa. *var-*, Tksh. *var-*, Öz. *bar-*
**baq-* 'to watch, look at'	Sa. *vax-*, Tksh. *bak-*, Öz. *baq-*

2. Prothesis of *v* initially before a rounded vowel: Sa. /ur/ > /vur/ 'hit', Tksh. *vur*, cf. Kāš. <ur> (Poppe 1953: 465).

4.3. The perfect / indirective verbal suffix *-miʃ*

This suffix has a dual function in Salar as a perfect tense-aspect marker and as a pragmatic modal of indirect experience: The speaker's knowledge of the event is secondhand, inferred, brand-new, or indirectly-perceived; cf. Dwyer (forthcoming 1998).

> Sa. *U geːmiʃ* 'S/he came' (marked; often implies 'I heard / I think / it seems')
> cf. *U geːdʒi* 'S/he came (I saw)' (unmarked; often implies 'I know / saw / am certain')

The presence of this dual-function *-miʃ* suffix in Salar has been central to arguments for an Oghuz origin for Salar (e.g. Hahn 1988). It has been claimed that this suffix is a typically Oghuz feature, and does not occur in non-Oghuz languages. Actually, although *-miʃ* occurs in Turkish (and as a perfect marker in Azerbayjani and Gagauz), it is not a characteristic of spoken Turkmen (though it occurs as an indirective marker in the literary language). Furthermore, *-miʃ* does occur in non-Oghuz languages such as Yakut (as a perfect) and Chaghatay (as a perfect / inductive). Hence *-miʃ* is neither typical of nor exclusive to Oghuz Turkic.

The suffix *-miʃ* in Salar is best considered an archaism, and reflects the preservation of the Old Turkic perfect *-miʃ*. Indirectivity was likely a secondary though early development; the oldest Turkic inscriptions have examples where *-miʃ* has a discourse-pragmatic function and clearly marks more than just anteriority or perfect aspect. Modern Salar *-miʃ* retains both of these functions.

The functional parallelism of *-miʃ* in Oghuz-Turkic (particularly Turkish) and Salar suggests a similar pattern of development, but does not constitute enough evidence to prove a genetic relationship between Oghuz and Salar, since the suffix is absent in some Oghuz languages. In the Black Sea dialects of Turkish, for example, only the perfect

function of *-miʃ* is preserved as an archaism from Old Anatolian Turkish (Brendemoen 1997).

That *-miʃ* does *not* occur (or occurs only sporadically) in Southeastern Turkic as an indirective marker is, however, noteworthy. In modern Uyghur and Özbek, the functional and semantic scope of *-miʃ* has been severely narrowed, and perfect aspect and evidentiality / inductivity are marked otherwise.[19]

Thus, evidence suggests that indirective *-miʃ* in Salar is an Old Turkic archaism; that it indicates at least a parallel development with some Oghuz languages; and it suggests a different development from that of Southeastern Turkic. As such it constitutes more a further argument against the Salar-as-an-Uyghur-dialect hypothesis rather than a solid argument for Salar as an Oghuz Turkic language.

4.4 Serial verb constructions + particle *DE* in the imperative

The particle *DE* (realized in Salar as *da ~ de ~ ta ~ te ~ ti*) functions as both a verbal connective particle (*conjunctor*) and as the conjunction 'also' (and by extension 'both' and 'neither'). In verb complexes *DE* occurs between an uninflected main verb V_1 and a directional complement V_d, as in (NP) V_1 *DE* V_d-*TAM*. Intervening material such as NPs is highly restricted. (Modern Salar has lost the conjunctors *-°p* and *-A* (the latter except with iterative actions); uninflected verb stems are juxtaposed, and only the last verb in a series bears tense/aspect/ modal markers).[20]

When *DE* optionally occurs between an uninflected stem and a finite directional verb, it creates semantic distance between the two verbs and indicates a light temporal sequentiality of action. Where *DE* is obligatory, however, is in serial constructions in the imperative: *iʃte*

[19] In modern Uyghur, *-miʃ* functions only as a dubitative, expressing the speaker's contempt for and/or doubt that the subject had the ability to accomplish the action, e.g. *u ke(l)miʃ* 'S/he supposedly came (but I don't believe it)'.

[20] Through intensive contact with Uyghur and Qazaq, complex verb forms in Western Salar behave differently than in the main Eastern dialect; some speakers, for example, sporadically use the conjunctor *-°p*. *DE* functions as in Eastern Salar, but can also occur between two finite verb forms. (These are not coordinated constructions semantically, as the V_2 is a complement to V_1, e.g. *Dimur jol jasamiʃ de toŋlamiʃ* 'The railroad was fixed and (became) passable'.)

de gel 'Look [for it] and come back!', *al te var* 'Go and get it!'. Such forms are attested in late 19th-century Salar as well (Grenard 1898). Oghuz languages, unlike Northeastern Turkic (e.g. Uyghur) also have such an imperative construction (modern Turkish *al da gel* 'Bring [it] here!').

4.5. Oghuz lexical items in Salar

A number of lexical items are typical of the Oghuz languages. Some are given below:

Table 4. Oghuz lexical items in Salar

	'sparrow'	'lips'	'deaf'	'hand'
OGHUZ				
Salar	*seʤie*	*dodax*	*sayɨr*	*el*
Turkmen	*serʧe*	*do:daq*	*ker*	*el*
Azerbayjani	*särʧä*	*dodak*	*sayɨr*	*äl*
Std. Turkish	*serʧe*	*dudak*	*sa:ɨr*	*el*
SIB. TKC				
Sarïgh Yoghur	*qoɣaʂ ~ʁohʁaʂ*	*dəmsəɣ*	*teŋə*	*ələɣ*
S. Sib. Tuva	*bora-xirilee*	*erin*	*dylej, kula: qadɨɣ*	*xol*
QÏPCHAQ				
Qazaq	*torɣaj*	*erin*	*saŋəraw*	*qol*
E. TKC				
Uyghur	*quʃqaʧ*	*kalpuk; lɛp*	*gas*	*qol, ilik*

	'right (side)'	'mud'	'leg, shin'
OGHUZ			
Salar	*sɨx*	*palʧɨx*	*inʤɨx*
Turkmen	*saɣ*	*palʧɨk*	*bu:t* 'leg'
Azerbayjani	*saɣ*	*palʧɨg*	*baʤag* 'leg'
Std. Turkish	*sa:*	*balʧɨk*	*enʤik* 'lower part of the leg', *baʤak* 'leg'
SIB. TKC			
Sarïgh Yoghur	*oŋ*	*ʂolbaq*	*but ~ bət* 'leg'
S. Sib. Tuva	*oŋ*	*ʧɨlʧɨrɨq*	*but* 'leg, foot'

Qïpchaq			
Qazaq	*oŋ*	*batpaq*	*but* 'leg'
E. Tkc			
Uyghur	*oŋ*	*batqaq*	*put, patʃak*

The correspondence of Salar *secʒie* 'sparrow' with Oghuz <sertʃe> is particularly important. Al-Kāšgharī (folio 541) gives <secʒe> as the Oghuz form of Arabic 'sparrow', and Clauson noted that Oghuz *r* in this and other examples must be intrusive; the modern Salar form constitutes solid evidence of this (Marcel Erdal 1997, personal communication).

There are a number of lexemes which are found other historical and modern Turkic languages besides Oghuz (particularly in Chaghatay, i.e. Eastern Middle Turkic (Drimba 1968)), but not in modern Southeastern Turkic. Tatar also has *sau* 'right'. 'Hand' is found in Orxon Turkic as <älig>, in Chaghatay as <älik>; 'shoulder' in Chaghatay is <jaγïr>. For 'leg, shin', Chaghatay has <inʒyk>; Qarachay *inʧik* 'ankle'; Balqar *inʒik* 'id.' (Räsänen 1969: 172); Bashqurt *ensek* < **inʧik* (Poppe 1953).

While these examples are not exclusive to Oghuz, they still show that (1) these lexemes are not regional borrowings from Uyghur, Qazaq, or Sarïgh Yoghur, and (2) that Salar preserves a similar set of lexemes as Oghuz, and Western Qïpchaq (e.g. Bashqurt).

In Salar there are also other cognates to Eastern Middle Turkic forms which do not correspond to modern forms in the Oghuz languages:

biʒin	'monkey'	Uy., Öz., Ta., Tksh. *majmun*; Az. *mejmun*; Tkm. *majmɨn*; Qaz., Qïr. *majmɨl*; S.Sib. Tv. *sarabaʃqɨn*, XJ Tv. *meʧin*; SY *beʒin*
gølex	'cow, ox'	Orxon Turkic <kølik> 'cart, vehicle'; Kāš. <kølyk>; Qaz. *kølik* 'beast of burden, pack animal' (not attested in mod.Tksh., Tkm., Std. Uy., SY, or Öz.)

Both are examples of Old Turkic archaisms preserved in Salar. In the other Turkic languages, *majmun* is a Persian loan, and <gølyk> 'beast of burden' is attested in 14-17th c. Ottoman Turkish.

5. Qïpchaq and South Siberian Turkic elements in Salar

The Turkic component of Salar suggests an archaic and partly Oghuz base overlain with some miscellaneous features which are characteristic of the modern Qïpchaq and South Siberian Turkic languages. (Salar also shares certain phonological features with modern Uyghur, such as vowel devoicing; these are areal features incorporated into Salar as the result of language contact.)

The Qïpchaq and South Siberian Turkic elements in Salar are here described as sporadic or miscellaneous, since all appear to be isolated borrowings and frozen forms which do not conform to general patterns of Salar phonology or morphology.

5.1. Siberian Turkic-type elements

Certain Salar lexemes preserve remnants of Old Turkic which also appear consistently in South Siberian Turkic: *d* (in Tuva, Qaragas), *z* (in Khaqas, Shor), *ʤ*, and *n* (from Old Turkic **d*, **d*, **ʧ*, **j*, respectively). While systematic in Siberian Turkic, Old Turkic **d*, **ʧ*, **j* usually result in *j* (*ajax* 'foot'), *ʧ* (*ʧix-* 'to emerge'), and *j* (*jirix* 'heart'), respectively, in Salar.

Table 5. Siberian Turkic-type elements in Salar

Old Turkic	***d**	**adɨɣ*; Kāš. <aðɨɣ>
S. Sib. Turkic	*d*	S.Sib. Tuva *adɨg*, C.Tuva *adʏx*
Salar	/t/	*atɨx* 'bear' (cf. Tksh., Az., Tkm. *ajɨ*
Old Turkic	<qud->	
S. Sib. Turkic	*t*	Sojon *kut* ~ *kudar-*;
	z	C.Tv. *kut-*; SY *ɢoz-*; Uy., Qaz. *quj-*
Salar		*xoder-*'to pour'
Old Turkic	<adaq>	
S. Sib. Turkic	*z*	SY *jaləŋ azaq*
Salar	/d/	*jalaŋ adax* 'barefoot'; (cf. Tksh. *jalɨn ajak*; Az. *jalɨn ajag*; Tkm. *ajak jalaŋaʧ*)
Old Turkic	Kāš. <jad->	
S. Sib. Turkic	*z*	SY *jaz-* 'to spread, spread out, to sun'
Salar	/z/	*jaz-* 'to sow, spread' (cf. Uy. *jaj-* 'to spread out')

OLD TURKIC	*ʧ	Chag. <äʧä> 'elder sister, younger aunt'
S. Sib. Turkic	ʤ	Khaqas *iʤä* 'mother'; SY *iʤi ~ eʤi ~ eʤe* 'aunt'; cf. Yakut *ijæ* 'mother'
Salar	/ʤ/	*iʤa* 'mother'; cf. WMo. *eʤi* 'mama'; Tkm. *äʧä* 'wife, mother'
OLD TURKIC	*j	Kāš. <jäm> 'fodder, food; herbal medicine'
S. Sib. Turkic	*n*	Shor *näm* 'bait'; Khaqas *ne-mis* 'bait'
Salar	/n/	*neme* 'food'
Old Turkic		*jene* 'again'
S. Sib. Turkic	*j*	Uy. *jene*; SY *ene*
Salar		*nene* 'again'

From both a structural and semantic standpoint, the most recent source for Salar *iʤa* may well have been Mongolic, though this does not rule out an Old Turkic origin for the lexeme. *jene* 'again' underwent a different phonological development in modern Turkish: *gene, gine, jine.*

5.2. Non-Uyghur elements

There is a set of features in Salar which occur in the modern Qïpchaq and Oghuz languages, yet not in Southeastern Turkic (at least not in modern Uyghur). Since there is such variation in the correspondences with Qïpchaq and Oghuz (some Salar features occur in both, some in only one branch, and some in certain Oghuz or Qïpchaq languages, but not others), this set of features in Salar is most saliently described as being *non-Uyghur.*

5.2.1. Phonological elements

One feature of Salar phonology that is common to both Qazaq-Qïpchaq and South Siberian Turkic, yet differs from Uyghur, is the deaffricativization of Common Turkic **ʧ* > *ʃ* syllable-finally:

aʃ- 'to open'	< **haʧ-*; EWT <aʧ->; Uy. *aʧ-*; C.Tv., Qaz. *aʃ-*; SY *a(h)ʂ-*
eʃgu 'goat'	C.Tv. *øʃgy*, SY *ʂuɣə ~ ʂugu*; Qaz. *eʃki*; (but Qïr. *eʧkï*); cf. Uy. *øʧkɛ*; Tksh., Az. *keʧi*, Tkm. *geʧi*

leʃgi 'slender'[21] < **inʧkä* = Käš. <jinʧge>; Uy. *inʧikɛ*; C. Tatar *iniʧkɛ ~ niʧkɛ*; C. Qaz. *ʤiŋiʃkɛ*; C. Qirg. *iʧkɛ ~ niʧkɛ*; SY *ʃigi ~ ʃige* [metathesized]; C.Tv. *ʤijiŋ*; Tksh. *inʤe*, Az. *inʤä*, Tkm. *i:nʤe*

While such deaffricativization is not unique to Qïpchaq and South Siberian Turkic (also occurring in Anatolian dialects, e.g.), it does show Salar's divergence from Uyghur. The second and third examples above also show Salar's phonological divergence from both Uyghur (in vocalism) and Oghuz (in consonantism).

Another salient feature of Salar is the lack of vowel-raising. Common Turkic **a* in initial syllables before a following *ï* (historically) is preserved in Salar, as it is in both modern Qïpchaq *and* Oghuz languages. This differs from modern Uyghur, where **a* in such an environment is raised to *e* or *i*:

xarɨ	'old'	ET80 *qärï*, SY *qarə ~ qar*; Tksh. *karɨ* 'old woman'; Tkm. *garrɨ*; cf. Uy. *qeri*
xatun kiʃi	'woman'	Tksh. *kadɨn*, Az. *gadɨn*, Tkm. *ha:tin*; Öz. *xatɨn* 'wife'; cf. Uy. *xotun*
daɣɨ	'still'	Qïr. *daɣə*; SY *dahɣə*; Tksh., Az. *daha*; Tat. *taɣɨ* 'again'; cf. Uy. *texi*; cf. WMo. *dakɨn* 'again'
jaxɨn	'close, nearby'	Käš. ET76 <jaqïn>; Tksh. *jakɨn*; Az. *jaxɨn*; Tkm. *jakɨ:n*; Uy. *jeqin*
jaʃɨl	'green'	Tkm. *jaʃɨl*, cf. Uy., Tksh. *jɛʃil*
aǧɨr	'heavy'	Tkm., Tksh. *aɣɨr* (and Qaz. *awɨr*), cf. Uy. *eɣir*

5.2.2. Lexical elements

Lexical features of Salar tend to group with the modern Qïpchaq and Oghuz languages rather than with Southeastern Turkic. These include the formation of denominal compound verbs with *et-* 'do' rather than *qïl-*, and a set of lexical items.

In many Turkic languages, compound verbs can be formed from multisyllabic and / or foreign nouns by the addition of a generic action verb *et-* or *qɨl-* 'to do'. There is a significant isogloss between the languages which tend to employ *et-*, those that use *qɨl-*, and those that use

[21] While the initial *l-* in *leʃgi* is peculiar in the Salar form, it likely reflects the areal influence of Qīnghǎi / Gānsù Chinese, which does not distinguish *l* and *n*.

qɨl- or *et-*. At the very least, the *et- / qɨl-* isogloss may help in identifying a loan stratum in Salar. In modern Salar, compound verbs are formed only with *et-*, while *qïl-* is entirely absent. The following languages group together:

N + *qɨl-*	S. Siberian Tuva, Qaragas, Yakut
N + *et-*	Salar, Tksh., Az., Tkm., Tatar, Qaz. e.g. Sa. *iʃ et-* 'take care of matters'
N + *qɨl-* ~ *et-*	Sarïgh Yoghur, Uyghur[22], Özbek, e.g. Uy. *iʃ qɨl-* 'take care of matters', but Uy. *aʃ ɛt-* 'prepare food'.

Salar groups with Oghuz and Qïpchaq rather than with South Siberian Turkic and Southeastern Turkic. From this synchronic evidence, it appears that this is evidence *against* the earlier theory that Salar was a Southeastern Turkic language.

qɨl- does occur in some late 19th c. historical Salar texts. *The History of the Salars* (Tenišev 1976b) (but not in the *Türk Feizaili* (Hán 1989)) has *tø:be qɨl-* 'to repent' and *nazɨxat qɨl-* 'to teach'. If indeed these written sources reflect spoken Salar of the time, the presence of *qɨl-* suggests that it was the original generic action verb in Salar. Modern Salar *et-*, then, would be due to comparatively recent (within the last century) contact-induced shift from Qïpchaq, the only "*et*-language" in contact with Salar.

In addition, there is a set of lexical items in Salar which are typical of both the Qïpchaq and Oghuz languages:

kiʃi	'person'	Tkm. *kiʃi*, but Tkm. dialects *giʃi*; C.Tv. *giʃi*; SY *kəsi*; Bashqurt, Tatar *kiʃi*; Uy. *adam*
uɣu	'owl'	Qaz. *yki*, Qïr. *yky*, Bashqurt *ökö*; Tksh. *puhu* 'eagle owl', *bajkuʃ* 'owl'; Tkm. *ba:jɣuʃ*
kijix̃ kix	'gazelle'	Qaz. *kijik*, Tkm. *kejik*; C.Tatar *kijik*; Uy. *ʤɛrɛn*; cf. Tksh. *gejik* 'deer'
ʧija-	'spread out'	Qaz. *ʤaj-*; Uy. *jaj-*; C.Tv. *ʤordɤ*;; cf. Käš. <jad->; SY *jaz-*

In the latter example, Salar initial *ʧ* corresponds to Common Turkic **j*. Since this does not appear to be a systematic change in Salar, it was

[22] *et-* is much less frequent in for example Uyghur, but still occurs.

likely borrowed from a **j* (> *ʤ*) > *ʧ*-initial language (cf. Tatar *ʧirän-*, Tkm. *jiɣren-* 'to abhor'), or it is simply not cognate to these forms at all (Dwyer 1996: 261).

5.2.3. Morphology: Dative *-A, -KA*

The Salar case system mirrors the Old Turkic system fairly closely.

However, Salar appears to have *two* dative suffixes, *-A* (seductively like Turkmen *-A* and Turkish *-j(A)*) and *-KA* (like Southeastern Turkic, Qïpchaq, and Old Turkic *-KA*). Could this be an illustration of Salar's multistratal nature, with *-A* reflecting an older Oghuz stratum, and *-KA* reflecting contact with, say, Southeastern Turkic?

Synchronically, the alternation is phonologically and morphologically conditioned: Salar *-a / -e* occurs after consonant-final stems (*beʤiŋ-e* 'to Beijing', *bel-e* 'to the waist', *baʁrax-a* 'to the clothes'), *-nA* after the third person possessive suffix *-(s)I* (*ama-sɨ-na* 'to his / her mother'), while *-ge / -ɣa / -qa / -ɣe* occurs after vowel-final and homorganic consonant-final stems (*bala-ɣa* 'to the child', *ʁajiq-qa* 'to the boat').

Modern Turkmen[23] has *-A* (*-a / -e / -ɛ*) after both consonant-final *and* vowel-final stems: *baʃ-a* 'to the head', *gøz-e* 'to the eye'; /ata/ [ata:] 'to the father'; /berdi/ [berdä:] 'to Berdi'. Dative *-A* is also found in Turkish as *-(j)A*, with *-jA* following vowel-final stems, e.g. *Ali-j-e* 'to Ali'. Comparing Salar only with Oghuz, one could conclude that Salar *-A* is a phonologically-conditioned weakened variant of -KA, which might have passed through the following stages: *-KA* > *-jA* > *-A*.

If we consider Salar's contact languages, however, a number of competing hypotheses emerge.

Southeastern Turkic has only *-GA* (*-ɣa / -gä / -ka / -kä*): Uyghur *atɨ-ɣa*, *berdi-gɛ*. At first glance, this appears to suggest that Salar was originally an *-A* variety of Oghuz (as in Turkmen) which later acquired *-KA* from other Turkic languages, likely from Southeastern Turkic. However, in his study of the late 19th century Salar documents stored at the Qīnghǎi Minorities College, Hán (1989) asserts that *only* dative *-KA* appears in these documents. If these are truly representative of an earlier stage of Salar, then we would have to assume that *-KA* is the original dative suffix, and that *-A* was a feature or an allomorph ac-

[23] Examples from Hanser (1977: 41) and Baskakov et al. (1970: 107-117).

quired in the last hundred years. The latter is unlikely, since there are no known parallel examples of post-consonantal *K*-weakening in the language.

If the dative *-A* is a later-acquired second dative marker rather than an allomorph, there are three possible sources. One is the Qïpchaq languages (such as Qazaq, which has *-a / -e* after the possessive suffix, and *-na / -ne* after the third person possessive suffix *-(s)I)*. Another is early Mongolian, which has *-a* / -e as one form of the dative-locative (and fossilized in such forms as Mo. *etʃin-e* 'secretly' (Jerry Norman personal communication, 1996)). One other possible (though less likely) source for Salar dative *-A* is Amdo Tibetan, which also has a harmony-sensitive dative suffix /ɛ/ (Sun 1986: 92). However, despite the length and intensity of contact between the Salars and Amdo Tibetan speakers, this is not a likely option, since Tibetan harmony is conditioned by height (tongue root height) rather than backness. Of the three options, a Qïpchaq source for *-A* is the most likely, as Salar has certain other Qïpchaq features, e.g. the archaic *n* before dative, ablative, and possessive suffixes (see immediately below).

It is equally possible that Salar dative *-A* is merely an Old Turkic archaism and an allomorph of *-KA*. Old Turkic also had *-GA* (*at-qa* 'to the name), *-n-KA* > *-ŋA* (*baʃ-ɨ-ŋa* 'to the head'), and *-A* (*äbiŋ-ä* 'to your homeland') (Tekin 1968: 131).

5.2.4. Possessive *-(s)I* + *n* + oblique cases

The preservation of the Old Turkic possessive suffix *-sIn* and the Old Turkic oblique case suffixes *-ndA*, *-ndAn*, and *-ngA* is also characteristic of Oghuz and Qïpchaq, but not of Southeastern Turkic:

Turkmen
baʃ 'head, beginning', *baʃ-ɨ* 'its head, its beginning',
baʃ-ɨ-n-da 'on its head, at the beginning'
søz 'word(s)', /søz/+/lAr/+/-(s)I/ → *søzlør-ø* 'its words',
/søz/+/lAr/+/-(s)I/ + /Dan/ søzlør-ø-ndøn 'from its words'

Salar
daʃ-ɨ 'outside', *daʃ-ɨ-n-da* 'on the outside'
beʁrax 'clothes', *beʁraɣ-ɨ-n-da* 'on / with his / her clothes'

6. The relationship of Salar to Turkmen

A structural comparison of Salar and Turkmen reveals a number of similarities. Most are *not* unique to these two languages, but are found in other Turkic languages as well. With the evidence compiled to date, I can only state that Salar and the Oghuz branch *as a whole* have a *likely* genetic relationship, although they share as many differences than similarities. Salar shares more features with Turkmen than it does with any other Oghuz language (i.e., Turkish, Azerbayjani, or Gagauz), but the correspondence is not absolute. These Turkmen-type features in Salar include obstruent voicing and certain lexical items.

6.1. Similarities between Salar and Turkmen

6.1.1. Obstruent voicing

Common Turkic **b *t *k *ʧ* > **b *d *g *ʤ*. While the voicing of a subset of Common Turkic initial voiceless (except **b*) obstruents is typical of the Oghuz branch as a whole, a higher percentage of Turkmen lexemes correspond to the initial voicing of cognates in Salar. If we look at CT **t*, for example, we find that Salar initial d regularly corresponds to Turkmen *d* but Turkish *t*. (In Tuva and Sarïgh Yoghur, these surface as *t-* and *d-* in equal numbers.)

daʃ	'stone'	Az. *daʃ*, Tkm. *da:ʃ*, but Tksh. *taʃ*, Gag. *taʃ*
duz	'salt'	Az., Tkm. *duz*, Tksh. *tuz*
der	'sweat'	Tksh. *ter*, Az. *tär*, Tkm. *der*
dar	'narrow'	Tksh., Az., Gag. *dar*, Tkm. *da:r*
dox	'full, satiated'	Tksh. *tok*; Az. *tox*; Tkm. *dok*
daniʃ-	'to get acquainted, know'	Tksh., Az., Tkm. *taniʃ-* (but cf. Tksh. *daniʃ-* 'to consult')

6.1.2. Lexical items

Space does not permit an exhaustive study at present, but one example should suffice to pique our interest: Salar has *sufse* ~ *suhse* 'broom', and only Turkmen has the form *sybse*, while other Turkic languages have cognate but dissimilar forms: Kāš. <sypyrgy>; Tksh. *sypyrge*, Az. *sypyrgä*; cf. C.Tv. *ʃirbiʃ*, SY *ʃorγə*.

6.2. Differences between Salar and Turkmen

Salar and Turkmen exhibit a number of *differences* as well. If Salar and Turkmen are genetically related, these differences must be attributed to divergence over time. The differences include the following features.

6.2.1. Primary long vowels

Although Turkmen is one Turkic language which has preserved Common Turkic vowel length, modern Salar no longer has phonemic long vowels in native Turkic vocabulary. Salar may once have had such long vowels, claims Tenišev (1976a). According to his 1958 field study, Tenišev (1976a) recorded four or five long / short minimal pairs in Qīnghǎi Salar, such as *sa:rɨ* 'side' and *sarɨ* 'yellow'. The existence of these pairs, corresponding to long / short pairs in Turkmen, strengthened Tenišev's argument for the Turkmen origin of the Salars. However, in 1992-1993 I detected *no* length difference for these words in Eastern and Western Salar. It is entirely possible that during the last 35 years Salar has lost this primary vowel length distinction. The Salars could also have lost the distinction much earlier.

6.2.2. Rounding (labial) harmony

Literary Turkmen has consistent rounding harmoȟy, e.g. *gøðym* 'my eye', *otlor* 'grasses', *dyjölördö* 'on their camels' whereas Salar does not: *gøzim* 'my eye', *otlar* 'grasses', *dyjälärdä* 'on their camel(s)'. Salar only has palatal (backness) harmony. However, harmonic processes are notoriously instable and subject to language-contact effects (even northern Turkmen dialects for example show little rounding harmony), so this feature should not be given excessive weight.

6.2.3. Nasal spreading (assimilation) across word boundaries

Turkmen (and Qïpchaq) have such assimilation, Salar does not, e.g. for /baʃ/:

Turkmen (Hanser 1977: 53)	[θennen maʃ̲ya ba:rmï]	'Is anyone else there except you?'
Salar	[senden baʃ̲qa varmu]	'id.'

6.2.4. Personal Pronouns

6.2.4.1. Personal pronouns biz and siz

Turkmen has *biz* [bið] and *siz* [θið]. Historically, these are plural forms of Common Turkic *män* 'I' and *sän* 'you-sg.' In colloquial modern Turkmen, the plural is added to the the first person plural personal pronoun to form a 'double plural': *bizler*, *sizler*. Such first- and second-person pronouns formed with plural *+lar* are found systematically in Salar's geographically closest Turkic neighbor Sarïgh Yoghur, as *mis-ter ~ mis* 'we', *seler* 'you (pl.)'.

Like Turkmen, Salar has *piser* 'we' (likely from *biz+ler*), but not *biz*. Late 19th-century documents indicate that Salar once had *biz ~ bizler*, but not *siz* (Hán 1989). In modern Salar, *sen* is used universally for the second person singular pronoun.

6.4.2.2. Plural possessive suffixes *-°mIz, -°ŋïz*

Most Turkic languages have first and second person plural possessive suffixes; Turkmen has /-(I)mIz/ e.g. *gøð-ymyð* 'our eye', *gøð-yŋyð* 'your (pl.) eye'. Premodern Salar documents also indicate that Salar also once distinguished singular and plural possessive suffixes: sg. *-(I)m, -ŋ, -(s)i*, plural *-(I)miz, -(I)ŋiz, -(s)i ~ -lAri* (Hán 1989: 177). But modern Salar does not mark the possessed noun at all: *piserniγi gøz* 'our eye', *miniγi gøz*, 'my eye', *selerniγi gøz* 'your (pl.) eye'. Instead, possession is marked by the obligatory personal pronouns in the genitive: *miniγi, seniγi, aniγi*, etc. Only a decade ago Lín (1985) indicates that while plural and singular possessives were not distinguished, they were at least marked with *-m, -ŋ, -(s)i* (see also Lín & Hán 1986[2]: 222). The omission of these redundant possessive suffixes must therefore be a fairly recent change in the language. Typologically, it amounts to change from a synthetic to an analytic language. As Tenišev noted (1960: 557), it is a pattern remarkably like that of Chinese.

We can outline three stages: First, possessed nouns are fully and redundantly marked (and a preceding genitive personal pronoun is optional); then, plural suffixes merge with those of the singular (personal pronoun obligatory); and finally, possessed nouns are not marked at all (personal pronoun obligatory), see Table 6.

Third person/deictic pronoun *ol*: Turkmen, Qïpchaq, and Sarïgh Yoghur all have *ol* 'she, he, it' as personal pronoun, but also *ol ~ o* 'that'

as a deictic pronoun. Salar has *u* (< *ol*). Southeastern Turkic uniformly has *u*.[24]

Table 6. Reanalysis of Possessive Suffixes

Stage I: Full marking (Not attested for Salar)				
	Singular		Plural	
	(miniγi)	*-(I)m*	*(piserniγi)*	*-(I)miz*
	(seniγi)	*-(ɨ)ŋ*	*(selerniγi)*	*-(ɨ)ŋiz*
	(aniγi)	*-(s)i*	*(ularniγi)*	*-(s)i ~ -lAri*
Stage II: Sg/pl merger (Premodern Salar)				
	miniγi	*-(I)m*	*piserniγi*	*-(I)m*
	seniγi	*-(ɨ)ŋ*	*selerniγi*	*-(ɨ)ŋ*
	aniγi	*-(s)i*	*ularniγi*	*-(s)i*
Stage III: Loss of plural marking (1985)				
	miniγi	*-(I)m*	*piserniγi*	-
	seniγi	*-(ɨ)ŋ*	*selerniγi*	-
	aniγi	*-(s)i*	*ularniγi*	-
Stage IV: Loss of all possessive suffixes (1991)				
	miniγi	-	*piserniγi*	-
	seniγi	-	*selerniγi*	-
	aniγi	-	*ularniγi*	-

Deictic pronouns: Both Turkmen and Salar have reflexes of **bu* 'this' and **ol* 'that' (Turkmen and Salar bu; Turkmen *ol* ~ *o*, Salar *u*). In both languages, the oblique cases pattern similarly **bu-n* > *mu-n*, e.g. Turkmen *munuŋ* 'this-gen.,' *munda* 'here ('this-dat.'), *munno* 'this-dat.', and Salar *muniγi* 'this-gen.', *munda* 'here ('this-dat.') *munə* 'this-dat.'. Differences between Turkmen and Salar deictic pronouns can be attributed to secondary developments: Turkmen also has *ʃu* 'that here,

[24] Within a comparative Turkic framework, the conventional wisdom is that modern Turkic (e.g. Salar, Uyghur) *u* is derived from **ol*. However, if we also admit evidence from Tungusic and Mongolic (i.e., Altaic), there is an alternate analysis: Modern Turkic *u* derived from a Common Altaic demonstrative **u*. Compare Manchu <utala> 'this many'; Early Written Turkic <una> 'here, now' (Nadeljaev et al. 1968: 612), possibly < **u* + oblique case *n* + dative *A* (Jerry Norman 1996, personal communication).

that already referred to', *ʃol* ~ *ʃo* 'that' (< presentative *uʃ* + *ol*), and *xol* 'that, that there'; Salar only has the distant deictic *diuɣu* 'that over there'.

6.2.5. Accusative case

The accusative case in Salar, unlike in Turkmen and Old Turkic, is always *-nI* (*-ni/nɨ*). Turkmen has accusative *-nI* after vowel-final stems (*dunjä:-nɨ* 'world-ACC'), and *-I* after consonant-final stems (*at-ɨ* 'horse-ACC'). But Salar and Southeastern Turkic have only *-nI* irrespective of the stem-final segment (Salar, Uyghur *dunja:-nɨ*, *at-nɨ*). Since the modern Uyghur accusative reflects the generalization of Old Uyghur pronominal *-nI*, it is likely that the Salar accusative is the result of sustained language contact with Northeastern Turkic. In contrast, Turkish has retained the Old Turkic accusative *+(X)g* as *-jXg*.

7. Summary of Salar features by type

Salar has a complicated history, with both Turkic and non-Turkic adstrata. Considering the available morphological, lexical and historical evidence, Salar is clearly a language which (1) preserves a large number of Old Turkic features, likely due to its isolation from other Turkic languages; that (2) shares a number of features with either Eastern (Turkmen) or Western (e.g. Turkish, Azerbayjani) Oghuz languages, but often not both Oghuz groups. While it is tempting to connect Salar directly with Salïr-Turkmen, we do not (at least yet) have adequate evidence. Basic historical and ethnographic (as well as linguistic) research on the modern Salïr-Turkmen dialects is needed. Such data would clarify the position of Salar vis-à-vis the Oghuz branch as a whole.

Salar also has a number of features that can be interpreted either as Old Turkic archaisms, or as a Qïpchaq and/or South Siberian Turkic adstrata. It is clear that a number of lexical items in Salar are loans from South Siberian Turkic and Qïpchaq, for they conform to the phonology of the latter language groups. For morphological features, however, the balance weighs in favor of Old Turkic.

What emerges most clearly from the data is that Salar *differs from Uyghur* (i.e., Southeastern Turkic) at three major levels of language—phonology, morphology, and the lexicon. Although Salar now shares a number of phonological and lexical features with modern Uyghur (such as vowel devoicing and consonantalization (Dwyer 1996) and

lexical items), these are almost certainly areal phenomena, as they are found in other languages, including non-Turkic languages, of the Northwest Chinese / Eastern Central Asian region.

Table 7. Archaic features

Feature	Turkish	Turkmen	Premod. Salar	**Salar**	Sarïgh Yoghur	Qazaq	Uyghur
Perfect /in-directive *-mif*	+	+	+	+	–	–	–
OT lexeme <gölik>	–*	–	+	+	–	+	–
OT lexeme <biʧi:n>	–	–	+	+	+	-	–
Dative *-(n)-GA*	–	–	+	+	*(-(ŋ)-GA)*	+	*(-GA)*

**gølyk* is also attested in Ottoman Turkish

Table 8. Oghuz-type features

Feature	Turkish	Turkmen	Premod. Salar	**Salar**	Qazaq	Uyghur
Initial obstruent voicing	+	+	+	+	–	–
Primary long vowels	–	+	?+	–	–	–
**b > v* (*var-* 'go')	+	–	–	+	–	–
∅ > v / ini (*vur-* 'hit')	+	–	?		–	–
Oghuz lexemes	+	+	?	+	–	–
Adjectival **-IK > -I*	+	+	+	+	–	–
Imperative conjr. *DE*	+	+	?	+	–	–

Table 9. Turkmen-type features

Feature	Turkish	Turkmen	Premod. Salar	**Salar**	Qazaq	Uyghur
Doubled I p.pl.PN	– *(biz)*	*bizler*	?**bizler*	**piser**	– *(biz)*	– *(biz)*
Doubled IIp.pl.PN	– *(siz)*	*sizler*	**sizler*	**siler**	*sizder*	*silɛr* *
sypyrgɛ	*sypyrge*	*sybse*	?	**sufse ~ suhse**	*sibirtki*	

* *sizlɛr* is also found in some Uyghur dialects.

Table 10. Non-Uyghur features (= Oghuz / Qïpchaq features)

Feature	Turkmen	Premod. Salar	**Salar**	Qazaq	Uyghur
**a* > *a* in initial syllables	–	?	**–**	–	+
Rounding harmony	+	?	**–**	+	–
Nasal assimilation	+	?	**–**	+	–
Locative *-ndA*/V_	–	? –	**+**	+	–
Ablative *-ndAn*/ V_	–	? –	**+**	+	–
III p. poss. *-n-(s)I*	+	+	**+**	+	–
Proximate deictic + gen.	*munuŋ*	*muniki*	**muniɣi**	*muniŋ ~ buniŋ*	*buniŋ*
Proximate deictic + loc.	*munda*	*munda*	**munda**	*munda ~ bunda*	*buniŋda*
Proximate deictic + dat.	*munno*	*muŋa*	**munə**	*buɣan*	*buniŋʁa*

Table 11. Uyghur-type features

Feature	Turkmen	Premod. Salar	**Salar**	Qazaq	Uyghur
Vowel devoicing	-	?	+	-	+
III p.sg. 's/he/it' = abst. deictic PN 'that'	*ol* ~ *o*	**ol*	**u**	*ol*	*u*
Accusative *-nI*	*-nI* / V _ *-I* / C _	*-nI*	**-nI**	*-n(I)*/*-tI* /*-dI*	*-nI*

Table 12. Pan-Turkic features

Feature	Turkmen	Premod. Salar	**Salar**	Qazaq	Uyghur
Possessive suffixes	+	+	–	+	+
Distant deictic: 'that'	*ʃu* (cf. *ʃol*)	?	**– (u)**	*sol*	*ʃu*

Table 13. Non-Turkic features

Feature	Turkmen	Premod. Salar	**Salar**	Qazaq	Uyghur
Middle deictic: 'that'	*ʃol* ~ *ʃo*	?	–	*sol*	*ʃu*
Distant deictic 'that there'	*xol*	?	**(diuγu) ***	*ana*	*awu*

*Mongolic loan.

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Possessor ascension phenomena in Altaic languages in a cross-linguistic perspective

Andrej L. Malchukov

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This paper presents evidence in favor of possessor ascension in Altaic languages, in particular, Tungusic and Turkic. I assume a broad view of *possessor ascension*, taking into account all the cases when the possessor and its head are treated alike with regard to some morphosyntactic processes. Next, I contrast Altaic data on possessor ascension with the data from Aleut (Paleosiberian) to gain further evidence for the hypothesis that head-marked possessors cross-linguistically tend to display some of the features of their heads.

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0. Introduction

The goal of this paper is to present evidence in favor of possessor ascension in Altaic languages, drawing the data primarily from Tungusic languages (in particular, Even), and to a lesser degree from Turkic languages (Turkish). In section 1 I consider strategies for possessor relativization in Altaic languages and suggest reinterpreting the Mother Node Principle, as originally proposed by Hankamer & Knecht (1976) for Turkish, as a case of possessor ascension. I assume a broad view of possessor ascension, taking into account all the cases where the possessor displays some of the features of the head of the noun phrase. Section 2 contains a description of different morphosyntactic processes which treat the possessor and its head alike, ranging from "classic cases" of possessor ascension to scopal ambiguities exhibited by case and number markers. I shall further claim that one of the features favoring possessor ascension is the head-marking pattern in possessive NPs, as attested in these languages. In section 3 I contrast Altaic data on possessor ascension with the data from Aleut (Paleosiberian), a radically head-marking

language, to gain further evidence for this proposal. Finally, in section 4 I consider some other features that favor and / or interact with possessor ascension and argue against the disjunctive view of possessor ascension as advocated by formal approaches (e.g. in Relational Grammar).

1. Relativization of possessor NPs in Altaic languages

1.1. "Mother Node Principle" in Turkic (Turkish) relativization

It is well known that relativization of possessors within NPs in Turkic languages (Turkish) follows the same pattern as relativization of their heads. That is, relativization of the possessor within subject NPs involves the use of the participle in *-en* used for relativization of subjects (cf. 1a, b), whereas relativization of the possessor within object NPs involves the use of the participle in *-dik* followed by possessive markers used for relativization of objects or, rather, nonsubject constituents (cf. 2a, b):[1]

(1) a. *(_ okul-a gid-en) adam*
school-DAT go-*en* man
'the man who goes to school'

b. *((_ kız-ı) okul-a gid-en) adam*
daughter-3SG school-DAT go-*en* man
'the man whose daughter goes to school'

(2) a. *(_ tanı-dığ-ım) kadın*
know-*dik*-1SG woman
'the woman who I know'

b. *((_ kocas-ı-nı) tanı-dığ-ım) kadın*
husband-3SG-ACC know-*dik*-1SG woman
'the woman whose husband I know'

[1] In a number of other Turkic languages (as well as Mongolian languages, see section 1.3) the possessive agreement is attached to the head of the RC instead of the participle (see Schönig 1992 and 1993 for an overview).

In other words, relativization of possessors represents a paradigm case of the "Mother Node Principle" formulated by Hankamer & Knecht (1976: 205) as follows:

> "If a subconstituent of the major constituent of the RC is relativized, the participle is chosen which would be appropriate for the relativization of the major constituent itself."

1.2. Relativization of possessor NPs in Tungusic languages

In the terms of Keenan (1985) (cf. Keenan & Comrie 1977) the primary relativization strategy in Even and other Tungusic languages, as well as in Turkic languages considered above, is a participial prenominal gapping strategy. That is, formation of RCs involves the following morpho-syntactic operations: The restrictive sentence is preposed to the head noun; the verb takes the participle form (the perfect participle in 3); the relativized noun is gapped. In the primary strategy, relativization of subjects (as in 3b) and nonsubjects (as in 3c) differs in that in the latter case the participle takes a subject agreement ending indicating person and number of the participial subject, cf. the third person singular marker on the participle in 3c. (Note, further, that in Even, which in contrast to Turkish lacks a genitive case, the embedded (third person) subject remains in the unmarked ("nominative") form as in 3c):

(3) a. *Etiken* *buju-m* *maa-n*
old.man.NOM reindeer-ACC kill-NONFUT-3SG
'The old man killed the (wild) reindeer.'

b. *(_ buju-m* *maa-ča)* *etiken*
reindeer-ACC kill-PERF.PART old.man
'the old man who killed the (wild) reindeer'

c. *(etiken* *_ maa-ča-n)* *bujun*
old.man kill-PERF.PART-3SG reindeer
'the (wild) reindeer that the old man killed'

RCs with relativized possessors are patterned similar to those in Turkic languages; cf. 4b, which shows relativization of the possessor from the subject NP:

(4) a. *Etiken* *atika-nga-n* *hagdan-ni*
old.man wife-AL.POS-NOM-3SG grow.old-NONFUT-3SG
'The old man's wife died (lit. grew old).'

b. *((_ atika-nga-n)* *hagdan-ča)* *etiken*
wife-AL.POS-3SG grow.old-PERF.PART old.man
'the old man whose wife has died'

As demonstrated by 4, this strategy is also prenominal and participial. However, its qualification as a gapping strategy is somewhat controversial: Although the lexical possessor is missing in possessive RCs, their formation involves the obligatory possessive marking of the possessed (head) noun (cf. the third person singular possessive ending *–n* on the possessed noun in 4b).

Relativization of the possessor noun from a postpositional phrase has the same pattern. Whereas in the restrictive sentence 5a the possessor noun *hiakita* 'tree' is the dependent constituent of the postpositional phrase, in RC 5b it is its head:

(5) a. *Turaaki* *hiakita* *öjde-le-n* *doo-n*
crow.NOM tree top-LOC-3SG settle-NONFUT:3SG
'The crow settled on (the top of) the tree.'

b. *((_ öjde-le-n)* *turaaki* *doo-ča-***n***)* *hiakita*
top-LOC-3SG crow settle-PERF.PART-3SG tree
'the tree on (the top of) which the crow settled'

Note that in 5b, unlike 4b, the participle takes the possessive suffix, since relativization applies to (the possessor within) an object NP. Thus, the form of the participle in RCs, formed by the secondary as well as the primary strategy, depends on whether relativization applies to the subject or to a nonsubject NP and thus obeys the Mother Node Principle as attested in Turkish relativization.

The rules of the formation in other Tungusic languages are similar to those in Even (see I. V. Nedjalkov 1977 and references cited there; also Benzing 1985). Since RCs with relativized possessors have been studied less than RCs with relativized arguments, some further examples of RCs (from Evenki and Nanai) involving possessor relativization (out of the subject NP) follow:

(6) Evenki (Brodskaja 1988: 58)
(_ Evgide-n, _ _ birgida-n e-hi
this.side-3SG that.side-3SG not.be-PRES.PART

iče-v-re) d'uu bi-če-n
see-PASS-NEG.CONV house.NOM be-PERF-3SG
'There was a house, both sides of which were not seen.'

(7) Nanai (L. Ž. Zaksor, personal communication)
((_ asi-ni) tutuene buj-ki-ni) mapa
wife-3SG last.year die-PERF.PART-3SG old.man
'the old man whose wife died last year'

1.3. Relativization of possessor NPs in Mongolian languages

Those Mongolian languages which developed possessive agreement markers (e.g. Buryat) obey the Mother Node Principle in that relativization of both objects and possessors within object NPs (postpositional phrases) involves possessive marking on the RC head (which indicates person / number of the RC subject).

(8) Buryat (Skribnik 1988: 164)
(Ürööhen _ türii-n'
one.of.the.pair leg-3SG

gald.uul.ša-han) ümde ...
burn.CAUS(=PASS).INTENS-PAST.PART trousers
'the trousers, one leg of which is burned'

(9) Buryat (Skribnik 1988: 163)
Maanad-aj (_ doro-n' zagaha
we-GEN underneath-3SG fish

bari-dag) xüürge-mnaj ...
catch-ITER.PART bridge-1PL
'the bridge (lit. our bridge) under which we are fishing'

On the other hand, those languages that lack possessive morphology (e.g. Khalkha Mongolian) do not distinguish morphologically between

RCs with subject and object relativization and therefore are irrelevant for our discussion.

Thus, all Altaic languages which developed possessive agreement follow the Mother Node Principle, irrespective of the way in which the distinction between subject and object RCs is drawn: That is, it applies both to languages which mark object RCs by attaching agreement endings to the participle (as in Tungusic or Turkish) and to those which mark the head of the RC (as, e.g., in Buryat or Yakut).

1.4. Towards an explanation of the Mother Node Principle

As demonstrated above, in Altaic languages (which display possessive agreement morphology) relativization of possessors follows the same pattern as relativization of heads of NPs. This seems to be a cross-linguistically unusual pattern since it constitutes a violation of the syntactic Accessibility Hierarchy for relativization set up by Keenan & Comrie (1977). According to Keenan & Comrie (1977), (genitive) possessors ranking low on the Accessibility Hierarchy are predicted to follow consistently the relativization strategy chosen for obliques or objects of comparison (occupying adjacent ranks on the Hierarchy), rather than displaying relativization strategy of their heads. For example, European languages cannot use participles (used for subject relativization) to relativize on possessors from subject NPs; cf. the ungrammaticality of 10:

(10) **his son going to school man*
(Attempted reading: 'The man whose son is going to school')

Thus, the pattern of possessive relativization, as attested in Altaic languages, calls for an explanation. Much of the subsequent research in Turkish linguistics has approached this problem by trying to give an explanation of the Mother Node Principle (along with other principles of RC formation) either in syntactic or in semantic terms. The alternative approaches are well represented by the contributions to the volume *Turkish linguistics today* by Kornfilt (1991) and Nilsson (1991). The generative approach, advocated by Kornfilt (1991), proposes to attribute the use of the Subject Participle (*-en*) for relativization of subjects to the fact that the use of the Object Participle (*-dik*) here would involve an empty category in the embedded subject position. Since this empty category is supported by the agreement morphology on the participle, it must be a *pro* in terms of Chomsky's Government and Binding theory

(GB). Kornfilt (1991) proceeds to argue, extending the notion of A-binding to A'-binding, that this *pro*, being a [+pro -ana] category, would be too close to its binder (the head of RC coindexed with it). The use of Subject Participle for relativization of possessors of subject NPs is explained in a similar fashion. If the Object Participle were chosen, the empty category in question would again be a *pro* since it would be supported by possessive endings on the head noun, and hence illegally bound by the RC head.

Nevertheless, with regard to possessive RCs, this approach is contradictory, since it is not clear how gaps within subject RCs with relativized possessors can be simultaneously *pro*s and variables, i.e. represent simultaneously two different types of empty categories. This is so because under the standard GB analysis, which models gapping strategies (as in Turkish) on relative pronoun strategies (as in English), the gap in the position of the relativized constituent must be a variable.

It seems that the pattern of possessive relativization has no straightforward explanation in the semantic approach either. Thus, according to Nilsson (1991), the choice of Subject and Object Participles depends on referential properties of the embedded subject: Thus, if the subject is weak or nonreferential (or, more generally, nonspecific in terms of Johanson 1977) the Subject Participle is used, the Object Participle being reserved to indicate switch-reference with the referential (specific) subjects. Although this approach works quite well in many cases (e.g. in RCs with so-called subject incorporation), it cannot straightforwardly account for the use of Subject Participle in cases of possessor relativization as in 1b: The possessed nominal is clearly referential in such cases (otherwise it would not be used for purposes of head identification). Thus, formation of RCs with relativized possessors appears to be problematic by any account.

In my view, the Mother Node Principle in relativization should be viewed in the context of other possessor ascension phenomena as attested in these languages. Actually, this possibility has not gone unnoticed in Turkic studies. Thus Barker, Hankamer & Moore (1990), briefly considering such analysis (to be later discarded in favor of a syntactic approach—a reformulation of principles of relativization as proposed in Hankamer & Knecht (1976) in terms of *c*-command), write (footnote 4):

> "One might be tempted, looking at examples (5)-(6) in isolation [examples of possessor relativization], to hypothesize that possessor ascension is at work; there is however no evidence from agreement, control or raisability to support the existence of possessor ascension in Turkish. Further, examples (7)-(10) below [examples of object relativization out of sentential subjects] would remain to be accounted for."

Still, it seems that both objections are not fully convincing. First, relativization of nonsubject constituents out of sentential subjects (to which the authors refer above) is known to be marginal in Turkish (cf. Kornfilt 1991:76) and is altogether impossible in Even (Tungusic). Second, the authors' contention that "possessor ascension" phenomena are lacking in Turkish originates from a narrow view of this process as developed in the Relational Grammar tradition (cf. Perlmutter & Postal 1983). However, if we assume with Corbett (1993) a prototype approach to the notion of headedness and regard "possessor ascension" as a process assigning some of the head properties in a nominal phrase to the possessor, such evidence for possessor ascension is available both in Turkic and Tungusic languages.

Further, I shall argue that possessor ascension phenomena can be attributed to the fact that possessors are head-marked in these languages (cf. section 4).[2] Notably, in Turkish, head-marking constitutes a precondition for possessor ascension in RCs (i.e. for the choice of the Subject Participle under relativization from the subject NP). Turkish possessive constructions are normally double-marked—by means of possessive agreement morphology on the head and by genitive marking of the possessor. However, there exists a class of constructions where the possessive head-marking is optional or even dispreferred, as in the case of constructions with a proper name as the possessed constituent:

(11) *Fatma-nın* *Ali* *(Ali-si)*
Fatma-GEN Ali (Ali-3SG)
'Fatma's (husband, son, etc.) Ali'

[2] The term "head-marking", introduced in Nichols (1986), is used here to refer both to head- and double-marking patterns, i.e. to all cases when the possessor is marked (indexed) on the head.

Now, if the possessor in such constructions should be relativized, the possessed, acting as the embedded subject, must take the possessive agreement morphology in accordance with the general pattern:

(12) *Ali-si* *(*Ali)* *evlen-en* *Fatma* *(intihar* *et-ti)*
Ali-3SG (*Ali) marry-PART Fatma (suicide do-PAST)
'Fatma, whose (husband) Ali married (the other one), killed herself.'

In the next section I shall consider further evidence for possessor ascension from the two groups of Altaic languages—Tungusic and Turkic—which consistently exhibit possessive agreement morphology.

2. Evidence for possessor ascension in Altaic languages

2.1. Turkic languages: Scope of the plural marker

It is well known that Turkish (as well as other Turkic languages) lacks the specialized possessive marker of the third person plural. In the latter function, the complex possessive form in *-ler-i*, a combination of the plural marker and the third person singular marker, is used. These forms are, however, ambiguous, as indicated in 13:

(13) *ev-ler-i* a. '(his / her) houses'
house-PL-3SG b. '(their) house'
c. '(their) houses'

In one reading, the plurality is interpreted as pertaining to the stem of the noun itself, in the other reading, as pertaining to the possessor nominal, and in the third, as pertaining both to the head and its possessor. Viewed as a semantic operator,[3] the plural marker can be regarded as taking either the stem to the left or the possessive ending (cross-referencing the possessor nominal) to the right in its scope.

2.2 Tungusic: Scope of the designative case marker

In a number of Tungusic languages (Evenki, Nanai, etc.) the DO can be marked, apart from the accusative case (or the reflexive-possessive marker, as in 18a) by the designative case in *-ga-*. The designative case

[3] Compare a discussion of scopal properties of nominal morphological categories in Johanson (1992: 189-190; 234-235).

is exceptional morphologically in that it always takes the possessive suffixes. It is exceptional semantically in that marking the DO it simultaneously assigns the Beneficiary function to the possessor in the DO phrase. Cf. the interpretation of the possessor nominal in 14, where the DO is marked with the accusative case and in 15 with the DO in the designative:

(14) *Bii* *etiken* *or-ma-n* *ga-da-m*
I.NOM old.man reindeer-ACC-3SG take-NONFUT-1SG
'I took the old man's reindeer (i.e. the reindeer from the old man).'

(15) *Bii* *etiken* *or-nga-n* *ga-da-m*
I.NOM old.man reindeer-AL.POS-DES-3SG take-NONFUT-1SG
'I took the reindeer **for** the old man.'

In other words, the designative marker has its scope both over the head nominal and its possessor.

2.3. Turkic: Use of same-reference converbs in switch-reference contexts

Turkic languages contain a class of converbs (cf. the Turkish converbs in *-ip*, *-erek* and doubled *-e*) that are normally used under coreferentiality of the embedded (converbial) subject with the matrix subject. Now, it has been noted that in a number of Turkic languages (see Brendemoen & Csató 1986 for Turkish; cf. Bergel'son & Kibrik 1995 for Tuvinian) some of these converbs can also be used in switch-reference contexts. The factors that facilitate this use are, on the one hand,—much like in RCs—referential (nonspecificity) and semantic (nonagentivity) properties of the converbial subject, and, more relevant to our discussion, the possessive relation between the matrix and the embedded subjects:

(16) (Brendemoen & Csató 1986: 124)
Mehmet, *diş-i* *ağrı-ya* *ağrı-ya,*
M.(NOM) tooth-3SG ache-CONV ache-CONV

sabah-ı *et-ti*
morning-ACC make-PAST-3SG
'Mehmet stayed awake all night with his tooth constantly aching.'

Thus with regard to rules of switch-reference, coreferentiality of the matrix subject with the possessive suffix on the embedded subject apparently suffices for the choice of a same-reference converb.

2.4. Tungusic: Possessor ascension in adversative passive constructions

North Tungusic languages exhibit a special valency-changing category, the adversative(-passive) form in *-w-* / *-m-*, which denotes an action unfavorable for the (surface) subject (cf. indirect or adversity passive in Japanese). Deriving prototypical (valency-reducing) passives as in 17, these forms mark promotion of the DO to the surface subject position; the (optional) underlying subject is marked by the dative case:

(17) a. *Nugde* *etike-m* *maa-n*
bear.NOM old.man-ACC kill-AD-NONFUT-3SG
'The bear killed the old man.'

b. *Etiken* *nugde-du* *maa-w-ra-n*
old.man.NOM bear-DAT kill-AD-NONFUT-3SG
'The old man was killed by the bear.'

However, there is also another type of adversative constructions, derivation of which results in a valency increase. For such constructions the surface subject corresponds to the underlying possessor (from the DO NP as in 18):

(18) a. *Nugde* *etiken* *gia-wa-n* *maa-n*
bear.NOM old.man friend-ACC-3SG kill-AD-NONFUT-3SG
'The bear killed the old man's friend.'

b. *Etiken* *nugde-du* *gia-j*
old.man.NOM bear-DAT friend-NOM-REF.POS

*(*hurke-m)* *maa-w-ra-n*
(*youth-ACC) kill-AD-NF-3SG
'The bear killed the old man's friend (the old man was negatively affected).'

Note that in 18b one cannot replace the DO in the reflexive-possessive form *gia-j* with the DO in the nonpossessed (accusative) form *hurke-m*. This demonstrates that the possessor constitutes an obligatory constituent in the underlying structure (cf. 18a) and therefore lends support to the possessor ascension analysis.

The valency-increasing type of adversative constructions can be derived from (certain classes of) intransitive verbs as well. In that case the underlying possessor "ascends" from the underlying subject NP:

(19) a. *Etiken* *oron-ni* *hör-re-n*
old.man reindeer.NOM-3SG go.away-NONFUT-3SG
'The old man's reindeer ran away.'

b. *Etiken* *or-mi* *(*oro-m)*
old.man.NOM reindeer-NOM-REF.POS (*reindeer-ACC)

höre-w-re-n
go.away-AD-NF-3SG
'The (old man's) reindeer ran away (the old man was negatively affected).'

Although not all types of adversative constructions can be analysed as involving "possessor ascension" (see Malchukov 1995: 21-25), the possessive relation is one of the major factors favoring promotion from a nonargument position.

2.5. Tungusic: Possessor ascension in reciprocal constructions

The verbal reciprocal form in *-mat- / -met-* is normally used to denote cross-coreferentiality between the subject and another argument of the base verb (the underlying DO in 20):

(20) a. *Akan* *nöö-j*
brother.NOM younger.brother-NOM-REF.POS

aw-ra-n
wash-NONFUT:3PL
'The brother washed his younger brother.'

b. *Ak-nil* *aw-mat-ta*
brother-PL.NOM wash-REC-NONFUT-3PL
'The brothers washed each other.'

The verbal reciprocal regularly also marks cross-coreferentiality between the subject and the possessor within another argument NP (DO in 21):

(21) a. *Akan* *nöö*
brother.NOM younger.brother

niri-wa-n *aw-ra-n*
back-ACC-3SG wash-NONFUT:3PL
'The brother washed his younger brother's back.'

b. *Ak-nil* *meer* *niri-l-bur*
brother-PL.NOM self's back-PL-NOM-REF.POS.PL

aw-mat-ta
wash-REC-NONFUT-3PL
'The brothers washed each other's backs.'

Again, possessors within argument NPs are similar to their heads in that they can be cross-coreferential to the subject of the reciprocal construction.

2.6. Turkic: Subject to subject raising in embedded clauses

As discussed in Mulder (1976), if the impersonal passive construction taking a sentential complement constitutes a "root" clause, the embedded subject cannot undergo raising to the matrix clause subject position. Note that the embedded subject in 22a cannot control the matrix verb agreement, as illustrated by the ungrammaticality of 22b:

(22) a. *((biz-im)* *masum* *ol-duğ-umuz)-a* *inanıl-dı*
(we-GEN) innocent be-PART-1PL-DAT believe-PASS-PAST-3SG
'We were believed to be innocent.'

b. **((biz-im)* *masum* *ol-duğ-umuz)-a* *inan-ıl-dık*
we-GEN innocent be-PART-1PL-DAT believe-PASS-PAST-1PL
(Attempted reading: 'We were believed to be innocent.')

If, however, such a complex impersonal construction is in its turn embedded, the most deeply embedded subject can be raised to the position of the subject of the impersonal sentence and exert control over agreement of the erstwhile impersonal predicate:

c. *(sen)* *((biz-im)* *(masum* *ol-duğ-umuz)-a*
(you) (we-GEN) innocent be-PART-1PL-DAT

inan-ıl-dığ-ımız)-ı *bil-iyor-sun*
believe-PASS-PART-1PL-ACC know-PRES-2SG
'You know that we are believed to be innocent.'

This raising phenomenon seems to be important since it is not lexically restricted (to certain types of "raising verbs" and "raising adjectives"; cf. section 4) and depends solely on the syntactic construction involved.

3. Aleut evidence for possessor ascension

3.0. Typological characteristics of Aleut

Our account predicts that "possessor ascension" phenomena would obtain in other languages which cross-reference the possessor on the head nominal. As demonstrated with regard to Aleut, a radically head-marking language, this prediction is borne out.

Aleut is a Paleosiberian language related to Eskimo. It is a highly agglutinating suffixing language showing some polysynthetic features, cf. the use of enclitical subject-object agreement markers on the predicate in the examples in section 3.2. Syntactically, it is an SOV language giving much prominence to the topic relation, the verb agreeing with the topicalized constituent. The major parts of speech (nouns, verbs and adjectives) are not clearly distinguished: The set of possessive suffixes on nouns is similar to the set of subject-object agreement endings on verbs. The data discussed here are primarily drawn from Bergsland & Dirks (1981) based on the Atka Aleut dialect spoken in Alaska.

3.1. Number marking in NPs

Within simplex (nonpossessive) NPs Aleut formally distinguishes (in the unmarked absolutive case) between three grammatical numbers: Singular in *-x'*, dual in *-x* and plural in *-s*:

(23) a. *hla-x'* b. *hla-x* c. *hla-s*
boy-SG boy-DU boy-PL
'the / a boy' '(the) two boys' '(the) boys'

In possessive constructions, however, the possessed noun takes a special set of number agreement markers, indicating its own number and / or person and number of the possessor, whereas the latter (if overt, see below) is in the relative case. The scope of number markers (that is, which NP—the possessor or the head noun—is assigned the number) is determined by a special type of Agentivity Hierarchy, subsuming the following partial hierarchies. (Our formulation is based on observations in Bergsland & Dirks (1981) and proposals in Golovko & Vaxtin (forthcoming); the sign > in 24 means "preferably controls number agreement on the head N"):

(24) Agentivity hierarchy in number agreement control
(a) Person hierarchy: 1 / 2 p. > 3p.
(b) Number hierarchy (see Golovko & Vaxtin, forthcoming): PL > DU > SG
(c) Topicality hierarchy (cf. Golovko & Vaxtin, forthcoming): /+Topic/ > /-Topic/
(d) Default principle: Other things being equal, number is assigned to the closest /+referential/ NP.

To see how these principles operate, consider the following examples of possessive NPs (in the unmarked absolutive case):

(25) a. *ukina-mas* 'our knife or knives'
knife-1PL
b. *ukina-dix* 'your (du.) knife or knives'
knife-2DU
c. *ukina-chix* 'your knife or knives'
knife-2PL

In 25 the 1 / 2 person plural (or dual) possessor, ranking high on both Person and Number Hierarchies, controls number agreement on the head noun, whereas the latter's number is disregarded.

Consider next the following examples with the 1 / 2 person singular possessor:

(26) a. *uikina-ng* 'my knife'
knife-SG / 1SG
b. *ukina-king* 'my two knives'
knife-DU / 1SG
c. *ukina-ning* 'my knives'
knife-PL / 1SG
d. *ukina-an* 'your (sg.) knife'
knife-SG / 2SG
e. *ukina-kin* 'your (sg.) two knives'
knife-DU / 2SG
f. *ukina-t* 'your (sg.) knives'
knife-PL / 2SG

If the possessor is in the 1 / 2 person singular as in 26, thus being somewhat lower on the Number Hierarchy than constructions under 25, the head noun takes cumulative (in many cases unanalysable) agreement markers indicating number of its "host NP" (the head N) as well as number and person of the possessor.

Consider next the following constructions involving the third person possessor, ranking low on the Person Hierarchy. In accordance with the Default Principle as defined in 24d (and leaving for the moment the Topicality Hierarchy aside), the number markers are assigned to its host, the head noun, whereas the possessor carries its own number marking, as illustrated below:

(27) a. *hla-m* *ukina-a* '(the) boy's knife'
boy-REL.SG knife-3SG
b. *hla-m* *ukina-ngis* '(the) boy's knives'
boy-REL.SG knife-3PL

(28) a. *hla-s* *ukina-a* '(the) boys' knife'
boy-PL knife-3SG
b. *hla-s* *ukina-ngis* '(the) boys' knives'
boy-PL knife-3PL

If, however, the possessor is topical and in that case normally omitted, the possessive construction becomes ambiguous as to which constituent is assigned the number, that is which constituent exerts control over number agreement. According to Golovko & Vaxtin (forthcoming), (see

also Bergsland & Dirks 1981), this ambiguity is constrained (albeit not fully resolved) by the Number Hierarchy, the resolution rules taking the following form: The constituent with the higher number controls the number agreement. Thus, the NP in 29a taking the singular marker is unambiguous—both its constituents must be in the singular. Example 29b, by contrast, is ambiguous in that it indicates only that at least one of its constituents (the head noun or its possessor) is in the dual, the other constituent can be either in the dual or in the singular (ranking lower on the Number Hierarchy). As shown by 29c, the NP marked with the plural is open to still more interpretations, since it merely indicates that at least one constituent is in the plural, the other being either in the plural or in lower numbers (dual or singular):[4]

(29) a. *ukina-a* 'his knife'
knife-3SG

b. *ukina-kix* 'their (du.) knife', 'their (du.) two knives', 'his two knives'
knife-3DU

c. *ukina-ngis* 'his knives', 'his two knives', 'their (du.) knife', 'their (du.) two knives', 'their knife', 'their two knives', 'their knives'
knife-3PL

Thus, the number marking pattern in Aleut possessive phrases is not unlike Turkish, illustrated in section 2.1, the head competing with the possessor for control of number agreement. The Aleut system is however more intricate, since control properties of the possessive phrase constituents depend on their position in a number of hierarchies.[5]

3.2. Possessor ascension: Control of verbal agreement

In clauses with no topicalized constituents, the verb agrees in person and number with its subject, both subject (and object) being in the absolutive

[4] In the interpretation of 29c I follow Golovko & Vaxtin (forthcoming), assuming that PL outranks DU on the Number Hierarchy. Note, however, that according to Bergsland & Dirks (1981) 24c cannot have a dual interpretation.

[5] For Turkic languages, topicality (= omission) of the possessor also plays a certain role, since nontopicalized (i.e. overt) possessors cannot control the plural agreement morphology on the head N. Thus, in contrast to 13, *adam-lar-ın ev-ler-i* (man-PL-GEN house-PL-3SG) means '(the) men's houses', but not '(the) men's house'.

case (the absolutive case is formally distinguished from the relative case only in the singular, as in 30a from Bergsland & Dirks (1981: 8):

(30) a. *Asxinu-x'* *hla-x'* *kidu-ku-x'*
girl-ABS.SG boy-ABS.SG help-PRES-3SG
'The girl is helping the boy.'

b. *Asxinu-s* *hla-x'* *kidu-ku-s*
girl-PL boy-ABS.SG help-PRES-3PL
'The girls are helping the boy.'

c. *Hla-x'* *kidu-ku-q*
boy-ABS.SG help-PRES-1SG
'I am helping the boy.'

If, however, the object is topicalized and therefore omitted, the verb takes another set of agreement endings, distinguishing the number of the object NP (and for most cases of the subject NP as well). In that case the subject takes the relative case, the structure being sometimes a bit misleadingly referred to as ergative:

(31) a. *Asxinu-m* *kidu-ku-***u**
girl-REL.SG help-PRES-**3->3SG**
'The girl is helping him.'

b. *Asxinu-m* *kidu-ku-***ngis**
girl-REL.SG help-PRES-**3->3PL**
'The girl is helping them.'

c. *Kidu-ku-***ng**
help-PRES-**1SG->3SG**
'I am helping him.'

Now, if the possessor of the subject NP is topicalized, this null possessor, rather than the subject (the head N), controls verbal agreement: Cf. 32a with the overt possessor and 32b from Bergsland & Dirks (1981: 21) illustrating ascension of the null possessor from the subject NP:

(32) a. *Hla-s* *ada-a* *awa-ku-x'*
boy-PL father-ABS.3SG work-PRES-3SG
'The boys' father is working.'

b. *Ada-ngis* *awa-ku-***s**
father-ABS.3P work-PRES-3**PL**
'Their father is (lit. are) working.'

In a similar fashion, the possessor within an object NP, if topicalized, controls verbal agreement, as in 33b from Bergsland & Dirks (1981: 22):

(33) a. *Hla-s* *ada-a* *kidu-ku-q*
boy-PL father-ABS.3SG help-PRES-1SG
'I am helping the boys' father.'

b. *Ada-ngis* *kidu-ku-***ning**
father-ABS.3PL help-PRES-**1SG->3PL**
'I am helping their father.'

The comparison of possessor ascension structures in 32b and 33b reveals an important point: The possessor within the subject NP, when topicalized, triggers subject-agreement endings on the verb, whereas ascending from the object NP, it triggers the (cumulative) object agreement endings. Thus, as regards the choice of verbal agreement markers, possessor ascension in Aleut obeys the Mother Node Principle, treating the heads of NPs and their possessors alike.

3.3. Switch-reference in "linking constructions"

One of the major types of complex constructions in Aleut is "linking constructions" (in the terms of Knut Bergsland), displaying features of both subordinate (underspecified adverbial clauses with a vague temporal semantics) and coordinate constructions. The form of the constructions depends largely on referential (switch-reference) relations between NPs in a subordinate (medial) and the matrix (final) clause.

If the embedded subject is nonidentical to the matrix subject, the nonfinal verb is normally linked by cliticization of the complementizer

(ng)aan (diachronically a postposition 'to, for');[6] in 34 *-g'aan* < *x'* (3SG) + *ngaan* (COMP):

(34) (Bergsland & Dirks 1981:105)

Alitxu-x'	*ina-ku-g'*-**aan**	*Atx'a-m*
war-ABS.SG	finish-PRES-3SG+**COMP**	Atka-REL.SG

hadan	*uqitiig'uta-na-s*
to.3SG	return-PAST-1PL

'When the war was over, we returned to Atka.'

When the embedded (3rd person) subject is coreferential to the matrix subject, another linking structure is used. In this pattern the subordinate predicate, rather than taking the complementizer *ngaan,* takes the relative case to indicate succession of the events referred to in the subordinate and the matrix clause, or the absolutive case to indicate their simultaneity:

(35)

Tayagu-x'	*uqiti-ku*-**m**	*ayug-na-x'*
man-ABS.SG	return-PRES-**REL.SG**	went.out-PAST-3SG

'The man returned and (then) went out (in a boat).'

Notably, this same-reference pattern can also be used under coreferentiality between the (3rd person) possessor in the embedded subject NP and the matrix subject as in 36a, or with the possessor of the matrix subject as illustrated in 36b:

[6] Strictly speaking, this is an oversimplification. First, if the embedded and the matrix subjects are coreferential but in the 1 / 2 person, the switch-reference pattern is used. And conversely, under certain conditions (indication of simultaneity between clauses; coreferentiality of the embedded subject or object to the matrix object) the use of the *ngaan* complementizer becomes optional.

(36) (Bergsland & Dirks 1981:109)

a. *Tayagu-x'* *uqiti-ku-***m**
man-ABS.SG return-PRES-**REL.SG**

hla-a *ayug-na-x'*
son-ABS.3SG went.out-PAST-3SG
'When the man returned, his son went out (in a boat).'

b. *Hla-a* *uqiti-ku-***m**
son-ABS:3SG return-PRES-**REL.SG**

ayaga-a *ayug-na-x'*
wife-ABS:3SG went.out-PAST-3SG
'When his son returned, his wife went out (in a boat).'

4. Conclusions and qualifications

In the present paper I have attempted to demonstrate on the basis of data from Tungusic, Turkic and Aleut languages that head-marking is one of the factors favoring possessor ascension. Data from a number of other head-marking languages (and language families) lend further support to this correlation; cf. e.g. lexically unrestricted raising phenomena in Quechua languages (Lefebvre & Muysken 1988: 141-148) and in Malagasy (Perlmutter & Postal 1983: 43-45), or marking of the possessor on the verb in Santali (a Munda language, see Bhat 1994: 234).

Still, I am not claiming that head-marking is the only factor involved in ascension processes. Generally speaking, ascension (and raising) phenomena constitute a rather heterogeneous class and may be conditioned by different factors. First, in some languages (e.g. Bantu languages, as discussed by Seiler 1983: 45-47), possessor ascension is allowed only for inalienable possessors. Second, existence of possessor ascension can depend on how well the genitive marker is integrated into the case-system of individual languages (i.e., if it is combinable with other case-markers). For example, Quechua languages employing a double-marking pattern of possessive constructions allow for extraction of the genitive possessors (and consequently for their double case-marking), whereas structurally very similar Turkic languages that disallow double case-marking do not. Third, those raising phenomena that are lexically restricted (applying to a particular set of "raising verbs" and "raising adjectives") largely depend, as suggested by Givón (1990:

778), on a (morphologically) trivial property of certain verbs to subcategorize for both a sentential and a nominal object (or subject).

Further, the possibility of possessor ascension may depend on a number of additional factors. A much discussed topic is the interaction between possessor ascension and noun incorporation:It has been argued with regard to a number of languages that the former process is a side-effect of the latter (cf. Baker 1988: 96-105; 268-277; for an early treatment of this topic with regard to Chukchee see V. P. Nedjalkov 1977). Another example is the interaction of possessor ascension with Agentivity Hierarchy, as observed above in Aleut. An additional typological investigation is necessary in order to determine if apparent counter-examples to our proposals, relating possessor ascension to head-marking, can be accounted for in terms of these factors (cf. e.g. agreement of the verb with the possessor in dependent-marking Tangut) (see Kepping 1979: 269-270).

The attested correlation between possessor ascension and head-marking in possessive constructions may have a diachronic explanation. Usually, the head-marking pattern is due to grammaticalization of encliticized pronominals to agreement markers. An intermediate stage in such a grammaticalization process is represented by a concatenation of the lexical noun with the pronoun, often with a (formally) underspecified dependency relation. Also in later stages of the grammaticalization process, the possessive agreement markers may retain residual characteristics of independent syntactic items and reveal certain head properties in competition with the possessed noun.

To conclude: Head-marked possessors, in contrast to dependent-marked possessors, tend to display some head properties and therefore may exhibit a deviant behavior with regard to hierarchies formulated in purely syntactic terms (such as Keenan & Comrie's (1977) Accessibility Hierarchy for relativization). Another conclusion is of a methodological nature. Our data suggest that a narrow, disjunctive view of possessor ascension phenomena (assuming that possessor ascension deprives the erstwhile head of all of its "term" properties), as advocated by formal approaches (e.g. in Relational Grammar), can hardly do justice to all possible redistributions of head properties within possessive NPs as attested in natural languages.[7]

[7] The common practice of accounting for such splits in Relational Grammar is to assign the "term" status to the possessor and its (semantic) head in different strata

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of derivation. Still, such analysis works well only for certain "classic" cases of Raising processes (cf. e.g. the discussion of Raising in adversative-passive constructions, above), whereas for other cases it is less suitable (cf. the discussion of head properties of possessors in RCs and switch-reference constructions) or altogether impossible (cf. the discussion of scopal properties of plural and case markers in sections 2.1 and 2.2).

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Two Eastern Turki texts about reading and writing

Wolfgang-E. Scharlipp

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Among the collection of Central Asian prints and manuscripts in the library of the University of Lund (Sweden), we find a number of texts which were written at the beginning of this century by an educated Uyghur. In addition to the information these texts contain about the social and cultural life of that time, they give us an insight into a certain phase in the development of the Modern Uyghur language. In this article, I present two of these manuscripts in transcription and translation along with a glossary and the facsimiles.

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For Professor Gunnar Jarring,
the Grand Old Man of Modern Uyghur studies

The two texts presented here in facsimile, transcription and translation were written by an Uyghur, Muhammad Ali Damollah, probably some time during the first decade of this century. Damollah worked as a teacher of Modern Uyghur for the British General Consulate and for the Swedish Christian missionaries in Kashgar, Eastern Turkestan, the present-day province of Xinjiang in the People's Republic of China. The original manuscripts are kept in the collection of Eastern Turki manuscripts in the library of the University of Lund, Sweden. So far, only a handwritten, provisional catalogue exists, compiled by Gunnar Jarring, who also founded this collection (see Ekström & Ehrensvärd 1987). The call number of these texts is Prov. 207, Collection I (Muhammed Ali Damollah) Nos. 1-2.

The same two texts were printed before in Scharlipp 1995, transcribed in normal Latin characters and translated into German without any remarks or glossary. The reason for this was that, at that time and in that context, the ideas that a semi-educated person from the Turkic world held about the nature of reading and writing were of more interest than the language of the texts themselves.

When Gunnar Jarring and the University of Lund were so kind to allow me to publish manuscripts from that collection, my intention was to edit them in the same way as Gunnar Jarring had previously edited texts which he published from the same collection.

There is one more preliminary remark to make. As mentioned in the 1996 edition, after I had translated the texts into German, I learned that Gunnar Jarring had translated them into English many years ago during his time as Swedish ambassador to Moscow. It therefore would have been unnecessary to translate them into English again. I decided rather to adopt almost verbatim Gunnar Jarring's translation, making only a few changes here and there. Wherever the translation might prove unsatisfactory, will be in those places. Beyond that, my only contributions are the transcription, some of the remarks and the glossary.

Transcription

I. oqumaqnïŋ bɛja:nï

(1) oqumaqtæ hɛmɛdin čoŋ iš šubu ki köŋůl qojmaq čiŋ köŋůl birlɛ oqumaq (2) jalɣuz köznïŋ küči az kelɛdur. tolæ væqt adæmnïŋ köŋli bašqæ tɛrɛftɛ bolsæ közi (3) χættɛ bolɣænï birlɛ æɣïzdïn bašqæ söz čïqïp ketɛdur.

(4) kitapnï ačqændæ bir safhænï oqup ötkůzgɛndɛ varaqnï oŋ qol tɛrɛfige (5) örůgɛj. oquɣændæ mula:hæzæ tama:m birlɛ oquɣæj půtůlgɛn sözde bir noqtæ væjæ bir kɛlimɛdɛ (6) ɣælɛt qïlïnɣæn bolsæ půtůlgɛn söznïŋ ævæl a:χïrïɣæ mula:hæzæ qïlɣændɛ köŋůl farqïnï (7) čïqærdur. šundæɣ hɛr nɛrsɛdɛ köŋůlniŋ küči čoŋ küčlůktůr (8) χætnïŋ tæri:kɛsi bir nečɛ qïsmïdur. bir qïsmï χætni nastalïq dɛp æjturmïz. Šundaɣ ki (9) kitaplærnïŋ χætï nastalïq χatur væ jinɛ bir qïsmï χætnï nasχ χæt dɛp æjturmïz (10) ol χætnï qura:nɣæ ve indʒil pütůptůr. nas χætur vɛ jinɛ bir qïsmï χætnï ku:fi χæt (11) vɛjæ χætï sulu:s dɛp ajturmïz andæɣ χæt bu tɛrɛftɛ na:gaha:n bardur. tuŋganïlær ku:fi χætnï istima:l (12) qïlïpturlær. (16) χæt oqumæqnïŋ šɛrtlɛri: χæt oquɣændæ bɛk χætnï közigɛ jæqïn kɛltůrůp (17) oqušnï özigɛ a:dɛt qïlmaɣæj. kejn nɛri tutup oquɣæj desɛ

oqujalmas (18) vɛ hɛm bæšïnï midirlɛtip χæt oqumaqnï özigɛ a:det qïlmaγæj bir æjp dɛk körɛnůr (19) ɛvɛl qajdaγ oqup a:dɛt qïlsæ šundæγ örgɛnůr. ve jine bir šɛrt šu ki bir söz- (20) niŋ ajæγïnï yinɛ bir sözgɛ qæjtïp ælïšturup oqumaγæj hɛr sözni tügɛtip (21) bir nɛps ælïp jinɛ bir söznin iptida:sïnï bašlæγæj sözni oquγændæ čɛlɛ (22) čɛjnɛp sözni tašlæmæγæj oquγændæ mula:hæzæ bilɛn oquγæj.

II. půtůkčiniŋ zærur la:zɛmlik nɛrsɛlɛri

<2> (1) qælæm jænï pïšïq qumuš qalæmtra:š bilɛn qïrïp učïnï jïrmaq.

<3> (2) sija:h jænï čïraγ isi bilɛn vɛjɛ gurunč qurutup köjdůrůp qïlïnur.

<4> (3) dæva:t sija:h čïlæjduryæn qačæ mistin ja tömür ja čini væjæ safa:ldin.

<5> (4) dæva:tkɛ saladuryæn jipɛkni soqup jumšatïp sija:h bilɛn dæva:tkɛ <6> sælïnïr. sija:hnï čïlæp vɛjæ bir šišɛgɛ sælïp půtůn sija:hnï šišɛ sælγændïn kin <7> čalγutup ta ki čalγulmæqtïn æjrïp půtůn sija:h qïlmæj su birlɛ bir bolγændæ dæva:tkɛ <8> qojmæq kɛrɛk.

<9> (5) jaχšï kaγaz puχtæ dʒümlɛsidin jasalur šundaγ ki urus kaγaz qoqant kaγaz vɛjɛ <10> χotɛn kaγaz. χotɛn kagaznï üdʒmɛ dɛra:χtïnïŋ jïldïzïnïŋ qobzaqïnï sojup soqup jumšatïp <11> jïγačtïn qalɛpni čaha:rsu qïlïp qalɛp tɛgigɛ hɛm pɛrkɛtip tujqun su üstide qojγændæ <12> sunï čalγutup bɛrgɛndɛ tɛkšɛ bolur andïn qalɛp bilɛn afta:ptæ qojγændæ qurup kaγaz bolur <13> kaγaznï jaχšï qïlæj dɛsɛ gurunčnï qajnætïp gurunč sujïnï jɛtɛ qajnætïp qïva:m qïlγæn <14> ta ki bir qajmaq vɛjæ meskɛ dek jumšaq bolur anï kaγaz üstide qojup qolïγæ bir χaltæ <15> ki:p χaltæ bilɛn tɛkšɛ kaγazkɛ sudæp kaγaznï ala küneš jɛrdɛ qojmaq kɛrɛk qurugændæ <16> ælïp šundæğ tɛrtů jüzkä hɛm sudæp qurutup alγændæ zirtaš jænï sïlïq bir taš bilɛn <17> sürgɛnde šišɛ dɛk sïlïq kaγaz bolur. χæt qïlgælï jæχšï qoqant kaγazï dɛk sïlïq bolur <18> kita:bæt qïlγændæ kaγaz tɛgidɛ dʒůzgir jænï qïrïm vejæ köndin qïlγæn nɛrsɛni ajturmïz. ol dʒůzgirde <19> půtůgɛndɛ dʒůzgir üstidɛ kaγaznï qojup kaγaz bašïnï kaγaz ajæγïdïn sahal igizræq <20> tutup olturγændæ bir putïnï tɛgigɛ bæsïp bir æjïγïnï tiklɛp tizlɛnip olturγæjlær <21> χæt qïlγændæ kaγazkɛ mistar sælïp kaγaznï dʒïrdʒïmaq kɛrɛktůr. mistar salmæsæ <22> χæt qïjïq čïqïp qalur. mistarnï bir nɛčɛ kaγaz bilɛn bir safha qalïnraq qïlïp hɛr sætïr χæt <23> aralïqïγæ čizɛbilɛn teŋšep tana:p mæšut jip bilɛn satır aralïqïγæ qojup <24> kaγaz baš tɛrɛpidin ha:šije qojup půtůgɛj. ve

půtůgɛndɛ můmkin bolsæ qïtajï kɛlimɛ qïlmaɣaj <25> čünki qïtajï kɛ-limɛ jænï bir kelimɛ sözni otradin bolap teŋini sætïr <26> nïŋ bašïɣæ bolmasun. mistar iki qïsmï: birini kaɣaz bilɛn jip bilɛn ... <27> jinɛ bir qïsmï üst bir tæχtæ raslap dʒïdʒïq qïlmaq kaɣaz safæsigɛ qarïndaš qalæm bilɛn <28> χætgɛ muva:fïq dʒïdʒïmaq kɛrɛk sætïr sætïr dʒïdʒïlïr jænï bir χætïn dʒïdʒïlur qarïndaš <29> qalæmnï jinčigɛ qïlïp jinik dʒïdʒïɣæj egɛr bir jɛrdɛ bir nemɛ gælet bolsæ χæt quruɣændæ <30> itik pïčaqtæ jinik qïrïp čïqarïp χæt ornïnï sïlïq bir taš bilɛn sürüp <31> qïlïp ornïɣæ χæt půtůmek kɛrɛk. bu qïsmï qïlïp půtůlgɛn χætlær kita:p půtůmɛkniŋ <32> beja:nï dur. mumkin bolsæ zɛdɛ qïlmæj ha:šije čïqarmæj půtůlsæ hɛr noχtænï hɛr hærfniŋ <33> öz bɛra:bɛrïɣæ qojup imla: bilɛn jænï ɛlif kelɛduryæn sözge ajn půtůlmesůn imla: <34> bilɛn půtůlsɛ mutabar ru:šæn χæt bolur. imla:nï saqlamæq zuru:rï ahqa:mï ikɛn <35> ikindʒi χætnï dua: vɛ sæla:m χætur. polat qælæm bilɛn půtůlůr. aksar bu polat qælæmnï <36> sodɛgɛrlɛr dɛptɛr vɛ dua: vɛ sæla:m χæt ůčůn išletür tatlatmæjdur. hɛr jɛrgɛ iba:rɛ duryæn χætnï lapa:pɛ hɛr kaɣazdïn <38> qïlïnyæn bir χaltæ dur. ænïŋ ičigɛ sælïp jɛm-lɛp lapa:pɛ üstigɛ χæt qïlïp ibɛrɛlɛduryæn <39> jɛrgɛ vɛzn χætnï mula:hæzæ qïlïp vɛznigɛ körɛ markæ čaplæp pošteχa:ne tašlap <40> χæt jɛtkůzůlůr. qælemnïŋ učïnï kɛskɛndɛ χa: qumuš qælæm χa: polat qælæm bolsun <41> qælɛmnï jïryændïn ki:n qælæm učï iki tïlïq bolur. oŋ tɛrɛpiniŋ učï sol tɛrɛpidin zɛreče <42> igizrɛk bolur. qælæm učï hemiše kesilip tursæ χæt sa:f čïqædur. kaɣaz sæfæsigɛ <43> mistar sælïp sætïrlærnï tüz čïqarmaq, mistarsïz χæt qïlsæ tüz qïlmaq kɛrɛk bolædur. (at the edge) qumuš qælæm köl kɛsilsɛ rištæ čïqïp qalur, qu-rutup kɛsmɛk lazïm bolur.

Translation

A description of reading

When reading, the greatest thing is this fact that one has to put one's heart and soul into it and read with all one's heart. If one does it only with the power of one's eyes, little comes out of it. Many times, when someone's mind is somewhere else but his eyes are with the script, other words emerge from his mouth.

When one opens a book and has finished reading a page, one has to turn it toward one's right hand. When one reads, one has to read the whole page attentively. If a mistake has been made in the written text in a (diacritical) point or in a word, one's mind finds the difference in the

written text by paying attention from the beginning to the end. Thus, in everything, the power of one's mind is a great strength.

There are a few different kinds of writing styles. One kind of writing we call *nastalïq*.[1] It is the type of writing used in books and which we call *nastalïq*. Another kind of writing we call *nasχ*. It is the kind of writing used in the Quran and in the New Testament and which we call *nasχ*. And there is another kind of handwriting which we call *ku:fi* or *sulus*.[2]

That handwriting is occasionally used in this part (of the world). The Tungans employ the *kufi*-script. Another kind of handwriting we call *šikɛstɛ-a:miz*. The Persian people used it, and also the peoples of India and Kabul use it for writing letters of greeting. Nowadays the handwriting they use in Kashgar of the Six Cities[3] in account books and in letters of greeting is *nastalïq*.

The conditions for reading. When reading, do not make a habit of bringing the script very close to your eyes. If you say "I shall read holding it far away", it cannot be read. And do not make it a habit to move your head to and fro when reading. It is considered a fault. The habit you first acquire when reading, you will (always) practice. Another condition is this: Don't read letting the end of one word come into contact with the following word.[4]

Read every word to the end and stop for a moment and then begin to read the beginning of another (the next) word. When you read the words, don't give up the words which you have not fully understood.[5] When you read, read with attention.

[1] As can be seen throughout the text, almost all the terminology referring to writing and the materials used for it are loans from Arabic, introduced into Uyghur via Persian.

[2] *sulus*, here written *sulūs*.

[3] The six cities of Eastern Turkestan; according to Jarring (1964: 21) it is the old name of Eastern Turkestan south of Tianshan.

[4] Here *bir sözïŋ ajaγïnï; ajaq*—also having the meaning 'end'—is the object of *qæjtïp ælïšturup*.

[5] *čala čɛjnɛ*—lit. 'masticating insufficiently'.

The writing materials which are necessary for a writer

1. A pen, i.e. a mature reed, together with a pen knife for sharpening the pen in order to make its nib sharp.[6]

2. Ink which is made of soot from a lamp or from burnt dry rice.

3. An inkstand. A bowl (in which to) soak (the pen) in ink. It is made of brass, iron, china or stoneware.

4. The silk cloth which is to be placed in the inkstand is softened through pounding and then put into the inkstand together with the ink. The ink is moistened (made fluid) or put into a bottle. After all the ink has been put into the bottle, it is shaken. After it has been shaken, there is no (dry) ink left, all has been mixed with the water. Then it is time to pour the ink into the inkstand.

5. A good paper is prepared from strong ingredients.[7] Such (qualities of) paper are Russian paper from Qoqand[8] and Khotan paper.[9] When making[10] Khotan paper, they peel the bark off the roots of the mulberry-tree, pound it and soften it, and, after having made a square wooden mould, they fasten a piece of cotton-stuff[11] at the bottom. And when they then pour stagnant[12] water on it and shake it, it becomes even.[13] When they then put the mould in the sun, it dries and becomes paper. If they say "I will make good paper", they boil rice and then they make the rice-water boil seven times in order to arrive at a proper degree of consistency[14] so that it becomes soft like cream or butter. They place this on the paper, put a sack on one of their hands, and with this they make the pa-

[6] *jïrmaq* has the same meaning as *qïrmaq* earlier in the sentence (Jarring 1964: 248).

[7] *jaχšï kaγaz puχtæ dʒůmlɛsidin jasalur* ... . In this sentence *dʒůmlɛsidin* has to be understood in the meaning 'from all kinds of ...'.

[8] *Qoqand* is a town in present-day Uzbekistan.

[9] *Khotan* is a town in present-day Eastern Turkistan, Chinese Xinjiang.

[10] *χotɛn kaγaznï*, the verb is omitted.

[11] *χam* is a special kind of coarse cotton-stuff (Jarring 1964: 125).

[12] *tujqun* 'stagnant water'; (Nadžip 1968: 331) *turgun su*; *r* > *j* corresponds to a development in the Yarkard-dialect of Eastern Turkestan.

[13] *tɛkšɛ* 'even', (Nadžip 1968: 300): *takši*; cf. Jarring (1964: 303) *tɛŋsɛ* 'to regulate, to adjust'.

[14] *qœva:m* (Arabic) 'a proper degree of consistency'.

per even. Then it is necessary to place the paper in a place with variegated sunshine.[15] While it is drying, they have to turn it and also make the other side even and let it dry. In doing this, they polish it with a polishing stone, i.e. a plane stone, and it becomes paper which is even like glass. For writing it becomes even like the best Qoqand paper. When writing books (we put) a *dʒůzgi:r*[16] under the paper. We call it thus, and it is made of a special goat-skin[17] or leather. When writing, we put the paper on the *dʒůzgi:r* and hold the upper part of the paper slightly[18] higher than the lower part; and when sitting, they kneel with one foot against the ground and one leg raised. When they write, they put a ruler[19] to the paper in order to draw lines.[20] If they did not use the ruler, the writing (the written lines) would become oblique.[21]

Having[22] made a page thicker with a few sheets of paper and adjusted (regulated) every line of writing (script) with a rule[23] and put a string of silk-thread[24] between the lines and a margin beginning the lines and a margin beginning at the top, they can start writing. And when writing, do not, if possible divide[25] words. Because word division, which means

[15] *ala kůŋeš*: *ala* means 'spotted' with respect to colour; here sunshine is meant which is not in its full power but interrupted by leaves or the like.

[16] *dʒůzgi:r* (Steingass 1957: 362), Persian 'a contrivance for keeping a book open when reading or writing, portfolio'.

[17] *qïrïm* (Nadžip 1968: 624) 'a special kind of goat-skin' (only in dialects).

[18] *sahal* (Steingass 1957: 711) Arabic *sahl* 'anything soft, easy'. Jarring gives the following information in his handwritten remarks on this text: "From a written note by Raquette *sahal pahal* > *salpal* very easy, slight".

[19] *mistar* (Steingass 1957: 1237), Arabic *mistar* a geometrical rule by which right lines are drawn, a ruler; parallel threads straight on a piece of pasteboard, used by those who copy manuscripts for ruling lines.

[20] *dʒïrdʒï-* Jarring (1964: 95) gives *dʒïdʒ-* and translates: "To make or arrange in a line, to put on a line, to line up".

[21] *qïjïp*, St. John (1993: 319) says: 'crooked'.

[22] The sentence begins with the accusative noun *mistɛrni*, which however does not have a verb governing it.

[23] *čize* (Jarring 1964: 34) 'measure, rule'.

[24] *mɛšhu:t* (Jarring 1964: 189) *mœšut* 'raw silk, raw silk-stuff'.

[25] *qïta* (Steingass 1957: 977) 'a segment, portion, piece, in pieces; *qïtajï kɛlimɛ* word-division'.

dividing a word in its middle, should not be done by putting one half of a word at the end of a line and one half in the beginning.

Rulers are of two kinds. One of them is made of paper and a string.[26] Another kind is made by preparing[27] the upper part of a piece of wood.[28] Then it is necessary, in order to make lines, to draw lines on the page of paper with a pencil[29] according to (the desired arrangement of) the writing. Line after line (then) will be drawn. Which means that lines are drawn for one (page of) writing after the other. After having made the pencil thin,[30] one has to draw lines lightly. If there is an error (made when writing) in some place, one has to scrape it off with a sharp knife after (the ink) has dried and polish the place where the writing was with a polishing stone to make it even and be able to write again in the same place where the (former) writing was. If one writes like this, it is the description of how to write a book, even if it is possible to write without laying on lines and without margins. But if one writes, one has to put the diacritical points evenly on every letter and write using the (correct) orthography, which means that one may not put an *ajn*[31] in a word where there should be an *alif*. If one does so, it becomes an authentic and clear script. To preserve the orthography is an indispensable rule. The second kind of letter writing is used for letters of greeting.[32] They are written with steel pens. Generally, the merchants use these steel pens for writing (their) account books and greetings. If one uses them without letting them become rusty, they are also good pens. If one keeps them in a dry place, they do not become rusty. An envelope[33] is a pouch which is made of paper and meant for sending a letter anywhere. After having put your

[26] Some word seems to have been omitted. Besides, the reading of one word is not clear to me; it looks like *dejduk*.

[27] *rastla-* 'to prepare'; here: 'to plane, to straighten'.

[28] *taɣta,* here: 'board'.

[29] Written *qœrïndaš,* which means 'brother', no doubt Russian *karandaš* is meant, probably pronounced in the same way as *qœrïndaš*.

[30] *jiŋgičigɛ* from *jiŋne* 'needle', but the exact morphology is not clear to me.

[31] The letter *ʿain* of the Arabic alphabet.

[32] Usually *dua:i—sɛla:m* (Jarring 1964: 89); here *dua: vɛ sɛla:m* 'a greeting'.

[33] *lepa:pɛ* 'envelope' (Jarring 1964: 183).

name inside and sealed[34] it and written (the address) on the envelope and having considered the weight of the letter according to the place to where it is going to be sent, and having put on a stamp corresponding to its weight and delivered it to the post-office, the letter will arrive (at its destination). When they cut (sharpen) the pen—be it a reed pen or a steel pen—it will, after it has been sharpened, become two-edged. The nib of the right side will become a shade[35] higher than the left side. If the nib of the pen is continually cut, the script will be clear. It will be necessary to use a ruler to make the lines of the page straight. If one writes without (the help of) a ruler, it will be necessary to write straight. If one cuts the reed pen when it is wet,[36] it becomes twisted. One will have to cut it again after it has dried up.

Orthography

The orthography is in general that of Chagatay and could be called modern Chagatay, notwithstanding a few modifications based on the spoken language, as was partly shown in the remarks. Of course a spelling of *s̲ulūs̲* instead of *s̲uls̲* or *nastālïq* instead of *nastaʿlīq* may simply indicate the author's ignorance of the original spelling. This must be the case in *qïsmï χæt*, which certainly stands for Persian *qism-i χat*; the vowel of the izafet conjunction written contradictory to the rule of Persian orthography and not found in the orthography of other Turkic languages which employ the Arabic alphabet. On the other hand, the use of morphological writing, i.e. the seperation of suffixes from the stems, proves the author's familiarity with Chagatay texts.

The transcription of the Arabic letter <f> varies, reflecting the ambivalence of the sound it stands for. Jarring (1964: 206) gives, for example, eight varieties of the pronunciation of the Arabic word *nafs*. In five of these, the pronunciation of [f] has changed to [p]. The same situation obtains in all other words containing original [f], except in anlaut position, where there is much less ambivalence and often only [f] is pronounced. There seems to be a tendency where the older the word and the more frequently it is used, the more we see the development *f* > *p*. In

[34] *jɛmlɛ-* 'to paste together, to seal': cf. Jarring (1964: 153) *jɛmlɛ* 'to repair', quoting BN 75; *jemlimak* 'to paste together, to glue together'.

[35] *zɛrrɛčɛ* 'a shade, a touch of, a bit'.

[36] I.e. the reed is still greenish.

the Uyghur-English dictionary compiled by St. John (1993), the orthography regularly has <p> for original <f>, except in the anlaut position in a number of words which are all modern loans.

Due to its topic and type the text is sparse in verbal morphology. What we find, including the verbal compound with *turmak,* corresponds to the Modern Uyghur forms. The same can be said of the morphological structure of nouns.

Glossary

a:χïr	end	*a:det*	usage, custom
ač-	to open	*adæm*	man
afta:p	sunshine	*ahqa:m*	statutes
ajn	letter of the Arabic alphabet	*ala kůnɛš*	half-shade
ala	spotted	*andæγ*	so, thus
ayaq	foot; end	*az*	little
æγïz	month	*æjïr-*	to separate
æjp	fault; mistake	*æjtur-*	to say; to name; to call
ælištur-	to mix; to add	*ævæl*	before; first
ɛlif	first letter of the alphabet	*bɛk*	strong; hard
bɛr-	to give	*bɛra:bɛr*	together
bɛrkɛt-	to make hard; to fasten	*baš*	head; beginning
bašla-	to begin, start	*bašqæ*	other
beja:n	explanation; description	*bilen*	with
bir nemɛ	anything; something	*bir nɛčɛ*	some; many; how many ever
bir nɛčɛ	a kind of	*bolmaq*	to be
čɛlɛ čɛjnɛ-	to masticate insufficiently (see footnote 5)	*čaha:rsu*	square
čalγul-	to play (an instrument); to mix	*čaplæ-*	to paste on; to attach
čïlæ	to soak; to moisten	*čini*	porcelain; china cup
čïq-	to leave, let out	*čïqar-*	to drive out; to bring out
čïraγ	candle; torch	*čoŋ*	much; very
dɛ-	to say	*dɛptɛr*	booklet
dɛra:χt	tree	*dæva:t*	invitation
dua:	prayer; invocation	*dʒïdʒï-*	to arrange on a line
dʒïdʒïq	a line	*dʒïrdʒï-*	to arrange in a line

dʒümlɛ	all	*dʒüzgi:r*	a contrivance for keeping a book open when reading or writing
egɛr	if	*farq*	difference
gol	hand	*gurunč*	rice
γælet	mistake; wrong	*hɛm*	too; also
hɛmɛ	all; most	*hɛmišɛ*	always
hɛr	every, each	*ha:šije*	margine
hærf	letter (of the alphabet)	*höl*	wet; moist
χa: ... χa:	as well as	*χaltæ*	bag; sack
χæt	line; script; writing	*χoten*	Khotan
ibɛrɛlɛ	to send	*iba:rɛ*	meaning
igiz	high; elevated	*imla:*	orthography
indʒil	bible	*iptida:*	beginning
is	smoke	*iš*	work
išlet-	to work; to use	*istima:l*	use
itik	sharp; ready	*jɛmlɛ-*	to repair; to paste together
jɛtɛ	seven	*jɛtůz-*	to bring; to convey
jaχšï	food	*jalγuz*	only; alone
jan	side	*jasa*	to make
jænï	namely	*jæqïn*	near; close to
jïγač	tree	*jïldïz*	roof
jinɛ	and, again	*jinčigɛ*	thin
jinik	light	*jip*	thread
jipek	silk	*jïr-*	to tear off
jumšaq	soft	*jumšat-*	to soften
jüz	face	*kɛlimɛ*	word
kɛlmɛk	to come	*kɛltůr-*	to bring
kɛrɛk	necessary	*kes-*	to cut; to pass
kaγaz	paper	*kejn*	back; behind
kel	to come	*ki*	that; lest
ki:n	afterwards; later	*kita:bæt*	writing
kitap	book	*köjdůr-*	to burn; to put fire to
köŋůl	heart	*körɛ*	according
köz	eye	*ku:fi*	a style of calligraphy
küč	strength	*küčlůk*	powerful
kůneš	sun	*la:zɛmlïk*	necessity
lapa:pɛ	envelope; (Jarring 1964: 183)	*markæ*	stamp

midirlɛt-	to move	*mis*	copper; brass
mistar	a ruler (see footnote 19)	*mula:hæzæ*	consideration
mumkin	possible	*mutabar*	esteemed; valid
muva:fïq	according to; agreeable	*nɛps*	breath
nɛri	beyond	*nɛrsɛ*	thing; ingredient
nɛrsɛ	where	*na:gaha:n*	suddenly
nastalïq	a style of calligraphy	*noχtæ*	muzzle; halter
noqtæ	dot	*oltur-*	to sit; to remain
oŋ	right (direction)	*on*	ten
oqumaq	to read	*orun*	place
ötkůz-	to pass; to spend time	*öz*	self
pïčaq	knife	*pïšïq*	ripe
polat	steel; (Jarring 1964: 223)	*poštɛχa:nɛ*	post office
puχtæ	solid; carefully	*put*	leg; foot; side
pütů-	to write	*půtůkči*	writer
půtůn	all	*qajdaγ*	what; how
qajmaq	cream	*qajnæt-*	to boil
qalɛp	mould; last	*qalæmtra:š*	pencil
qalïn	thick	*qarïndaš*	(see footnote 29)
qælæm	pen	*qïjïq*	not straight
qïl-	to do; to make	*qïr-*	to scrape
qïrïm	shelf	*qïsm*	kind; type
qïva:m	right quantity; right moment	*qobzaq*	bark
qoj-	to put; to place	*qoqant*	Qoqant
qumuš	reed	*qurut-*	to dry
rasla-	to arrange; to prepare	*rištæ*	yarn; thread
ru:šæn	bright; clear	*sa:f*	pure; clear
safa:l	terracotta	*safhæ*	page
sahal	Arabic *sahl* (Steingass 1957: 711); anything soft, easy	*sal-*	to put; to arrange
sæla:m	greeting	*sætïr*	line
sija:h	black	*sïlïq*	even; smooth
sodɛgɛr	trader; merchant	*soj-*	to peel
sol	left	*soq-*	to strike; to beat
söz	word	*su*	water
suda-	to water	*sulu:s*	a style of calligraphy
šɛrt	condition	*šišɛ*	bottle

šubu	this	*šundæγ*	thus; so
sür-	to rub; to polish	*tɐgi*	under; bottom
tɐkšɛ	(see footnote 13)	*tɐrɐf*	side; direction
tɐrɐp / tɐrɐf	page	*tɐrtů*	inverted; topsy-turvy
ta	until	*tama:m*	all; complete(ly)
tašla-	to discharge	*tašla-*	to throw; to abandon
tatla-	to get rusty	*tæχtæ*	board; plank
tæri:kɛ	way	*tiklɛ-*	to raise
tïlïq	with two tongues	*tiz-*	to arrange
tolæ	all	*tömür*	iron
tügɛt-	to finish	*tujqun*	(see footnote 12)
Tuŋanï	Dungan (Chinese Muslims)	*tur-*	to be; to stay; to become; to stand
tüz	straight	*uč*	point; top
ůčůn	for	*üḍme*	mulberry-tree
urus	Russian	*vɛzn*	weight
varaq	sheet	*væ*	and
væqt	time	*zerece*	shade; a bit; (Jarring 1964: 336)
zærur	necessary	*zirtaš*	polishing stone

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اوقوماق بینک بیانی

اوقوماقدا همه دین چونک ایش شبوکه کونکل قویماق چینک کونکل برله اوقوماق
یالغوز کوزینک کوچی آز کلادور تولا وقت آدم بینک کونکلی باشقه طرفده بولسه کوزی
خطه ده بولغانی برله اغزدین باشقه سوز چیقیب کتادور

کتاب نی اچقاندا برصفه نی اوقوب اوتکوز کلانده ورق نی اونک قول طرفیکا
اویردکای اوقوغاندا ملاحظه تمام برله اوقوغای پتولکان سوزده برنقطه ویا برکلمه
غلط قیلینغان بولسه پتولکان سوز بینک اوّل آخرینه ملاحظه قیلغاندا کونکل فرق نی
چیقارادور شوندای هر نرسه ده کونکل بینک کوچی چونک کوچلوق دور

خطه بینک طریقه سی برنچه قسم دور برقسمی خطه نی نستالیق دیب اتیورمیز شوندای
کتاب لار بینک خطی نستالیق خطه دور وینه برقسمی خطه نی نسخ خطه دیب اتیورمیز
اول خطه نی قرآنغه وانجیل نه پتوب دور نسخ خطه دور وینه برقسمی خطه نی کوفی خطه
ویا خط ثلوث دیب اتیورمیز انداغ خطه طرفداناگهان باردور تونکلکانی لارکوفی خطه نی
استعمال قیلیب دورلار ینه برقسمی خطه نی شکسته آمیز اتیورمیز فارس اهلی
بوخطه نی استعمال قیلیب دورهم هندوستان کابل اهلی دعاوسلام خطه کاشکسته آمیز
خطه نی ایشلاتیب دور علی کاشغر بوالیه شهرده دفتر دعاوسلام خطه کا ایشلاتیب
تورغان نستالیق خطه دور

خطه اوقوماق بینک شرط لاری خطه اوقوغاندا بک خطه نی کوزیکا یقین کلتوروب
اوقوشنی اوزیکا عادت قیلماغای کینی نری توتوب اوقوپای دیسه اوقوپالماس
وهم باشنی مدیرلاتیب خطه اوقوماق نی اوزیکا عادت قیلماغای برعیب دیک کوزانور
اوّل تایداغ اوقوب عادت قیلسه شوندای اورکونور وینه برشرط شوکه برسوز
بینک ایاغی نی ینه برسوزنکا قاتیب الیشتوروب اوقوماغای برسوز نی توکاتیب
برنقطه الیب ینه برسوز بینک ابتدا سی نی باشلاغای سوز نی اوقوغاندا چالا
چاپناب سوزنی تماشلاماغای اوقوغانده اعلا حظه بیلان اوقوغای

بتوکوچی نینک ضرور لازم بولان نرسه لاری

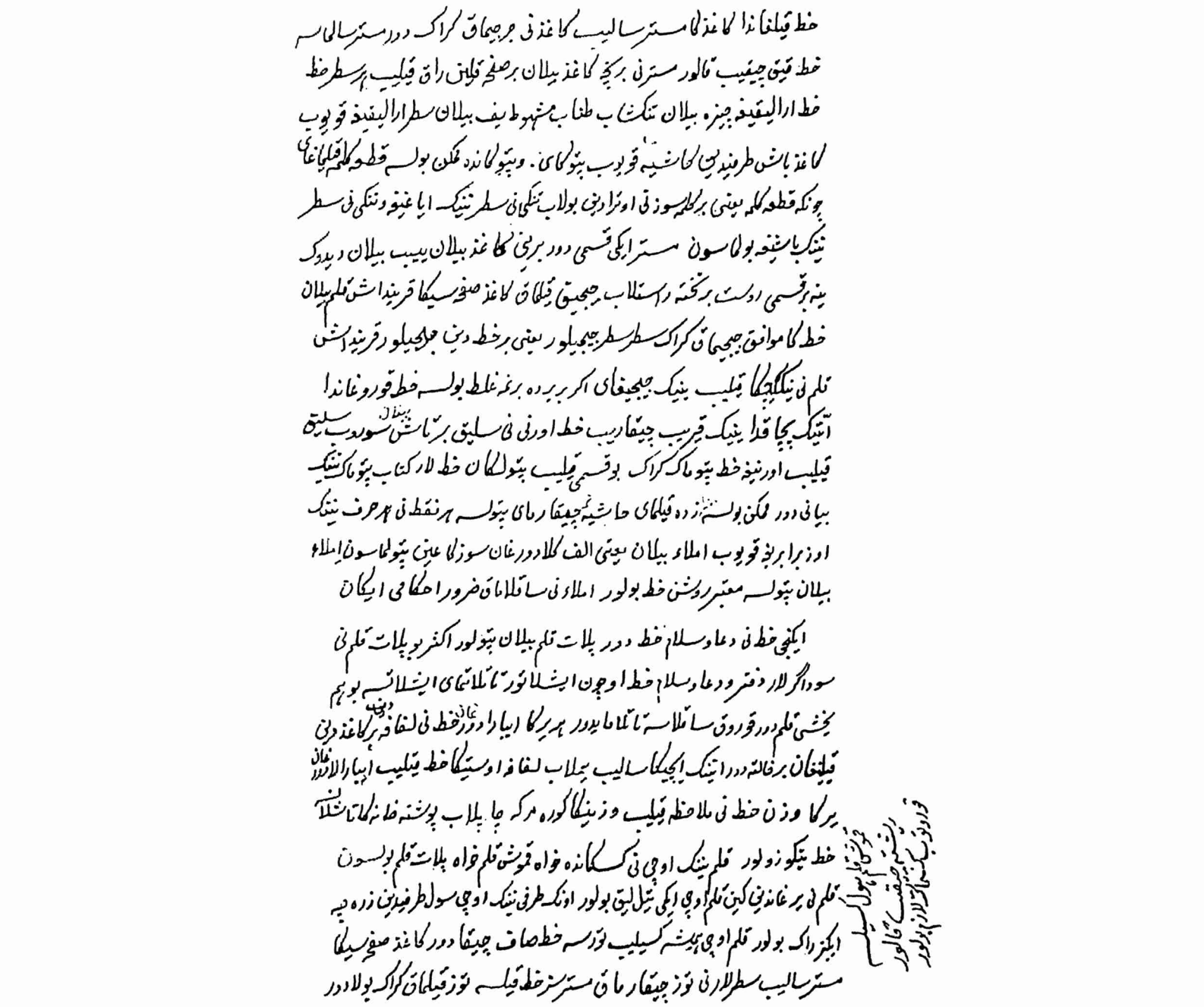
(۱) قلم یعنی بلشیق قموش قلمتراش بیلان قلم قیریب اوچی نی یرماق

(۲) سیاه یعنی چراغ الیسی بیلان و یا کروج نی قورتوب کویدوروب قیلینور

(۳) دوات سیاه چیلاپدورغان قاچا میسدین یا تمور یا چینی و یا سفالدین

(۴) دوات کا سالادورغان ییفک نی سوقوب یومشاتیب سیاه بیلان دوات کا
سالیتور سیاه نی چیلاب و یا برشیشه کا سالیب بتون سیاه نی شیشه سالغاندین کین
چالغوتوب تا که چالغولغاندین ایریب بتون سیاه قالغای سو برله بر بولغاندا دوات کا
قویماق کراک

(۵) بخشی کاغذ بخته تیله سیدین یا سالور شونداغ که اوروس کاغذ قوقند کاغذ و یا
خوتن کاغذ. خوتن کاغذ نی اوجه درختی نینک یلدیزی نینک قوبزاقی نی سو یوب سوقوب تو مناسب
یواچیدین قالب نی چهارسو قیلیب قالیب تیککا خام برکا تیب تویقون سو اوستیده تونیاندا
سونی چالغوتوب برکانده تکشه بولوراندین قالب بیلان آفتابدا قوتیاندا قوروب کاغذ بولور
کاغذ نی بخشی قیلای دیسه کروج نی قاینا تیب کروج سوبی نی بته قاینا تیب قوام قیلغانی
تاکه بر قاینماق و یا مسکه دیک یومشاق بولوراندی کاغذ اوستیده قویوب قولینه بر خالته
کیب خالته بیلان تکشه کاغذ کا سوواب کاغذ نی الاکونشی یرده قویماق کراک قوروغاندا
الیب شونداغ تر تو یوز کا هم سواب قوروتوب الغاندا زرتاشی یعنی سلیق برتاش بیلان
سوردکانده شیشه دیک سلیق کاغذ بولور خط قیلغالی بخشی تو قند کاغذ یدیک سلیق بولور
کتابت قیلغاندا کاغذ تگیدا جزرکیر یعنی قرم و یا کوندین قیلغان نرسه نی ایتورمیز اول جزرگیر
بتوکانده جزرکیر اوستیده کاغذ نی قویوب، کاغذ باشی نی کاغذ ایاغیدین سهل ایگزراک
توتوب اولتورغاندا بر بوتی نی تیکلا باسیب بر ایاغی نی تیکلاب تیزلانیب اولتورغاییلار



An example of Nganasan-Dolgan linguistic contact

Marek Stachowski

Stachowski, Marek 1998. An example of Nganasan-Dolgan linguistic contact. *Turkic Languages* 2, 126-129.

The use of the third person singular possessive suffix as a marker of definiteness is quite common in Turkic languages. In North Dolgan, however, this function is performed by the second person possessive suffix. This phenomenon is probably a result of Nganasan influence and is a distinguishing feature of the North and South Dolgan dialects.

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1. We do not know very much about Dolgan dialects. Nearly all Dolgan texts published so far were written in Southern Taymyr, i.e. by Dolgans who come from or, at least, have been living in the South for a longer period of time (that is, normally, in Dudinka or Noril'sk).

The Dolgans themselves distinguish between Lower (= Northern) and Upper (= Southern) Dolgan, the border running through the village Khatanga. During my stay in Dudinka (1995), I was fortunate enough to meet a Dolgan lady, Miss Elizaveta Aleksandrovna Bettu, who spoke her native Lower Dolgan, although not every aspect of her dialect was equally well understood in Dudinka. When translating some texts by various Russian authors as well as a few fairy-tales of other Siberian peoples into Dolgan, Miss Bettu attempted to use the Upper Dolgan dialect, which seems to be—probably because of the publications which have appeared in the South—more prestigious. Fortunately for us, however, she did not always manage to avoid using Lower Dolgan grammatical constructions.

Another Dolgan lady who is also very important for this study is Mrs. Anna Alekseevna Barbolina. She comes from the North, in fact, but her close contact with Upper Dolgan in Dudinka and with Yakut

allows her to distinguish many words and expressions typical of Northern Taymyr and different from those used in the South. Characteristically, Mrs. Barbolina, too, oriented herself by applying standards of Southern Dolgan.

2. One of the unpublished texts translated by Miss Bettu and then corrected by Mrs. Barbolina is of special importance to us. It is an Evenk fairy-tale about 'An orphan and his grandmother' (Dolgan *Tulajak ogonu kytta äbätä*). In the text, we encounter four constructions with the possessive suffix of the second person singular, which however functions as a definite article:

(1) Dolg. *ontuŋ*
'that one; he himself' (not 'you yourself'); cf. otherwise *ontuta* 'id.' (Stachowski 1993:194)

(2) Dolg. *bu ogoŋ alaŋännan ytta*
'The boy (not 'your son') shot (an arrow) from his bow.'

(3) Dolg. *hās küölüŋ aryllan balyk tuttalar*
'In the spring, when the lake (not 'your lake') became free of ice, they caught fish.'

(4) Dolg. *onton uol ogoŋ ulätta*
'Then the boy (not 'your son') grew (into a young man).'

Only in 4 did Mrs. Barbolina alter *uol ogoŋ* to *uol ogoto*. When I asked Miss Bettu why she had written, for instance, *bu ogoŋ* (2) but not *bu ogoto*, she said that for her it was the only "normal" way of speaking.

Another example of the same possessive construction is found in Miss Bettu's Dolgan translation of a story by V. Zavarzina with the title "Autumn is passing away" (Dolgan *Kühün baranar*):

(5) Dolg. *horoguŋ ..., nöŋüöläriŋ ...*
'Some ..., others ...' (not 'some of your people ..., the others of your people' or the like).

When talking to a group of people, the second person plural possessive suffix is used, as in the following example:

(6) Dolg. *ontugut ämiä kȳs bugatȳr*
'Auch dieses (Mädchen, von dem ich euch erzähle,) ist ein heldenhaftes Mädchen.' (Artem'ev 1992: 117)

3. The fact that the possessive suffix of the third person singular can function as a marker of definiteness is quite common in Turkic languages (see, e.g., the chapter "Der Artikel" in Grönbech 1936: 92-101 and Kowalski 1938: 589). But, as far as I know, the possessive suffix for the second person singular does not perform this function in any Turkic language. That is why one may expect foreign influence having led to this special use of the second person singular possessive suffix.

Indeed, this is a normal construction in Nganasan, the neighbouring language of Dolgan. Tereščenko (1993: 353) remarks that its possessive suffixes of the second person singular appear as a kind of definite article ("Ličnо-pritjažatel'nye suffiksy 2-go lica vystupajut v vide svoeobraznogo opredelennogo artiklja"). For the same phenomenon in other Uralic languages, see Tauli (1966: 148-149).

In view of old and sometimes very close contacts between Nganasan and Dolgan (resulting, for instance, in the partial Nganasanization of the Dolgan clan Oko (Hajdú 1985: 131)), the adoption of a Nganasan grammatical construction in Dolgan appears quite possible.

4. Now, let us return to the translation by Miss Bettu and its correction by Mrs. Barbolina. I think that Mrs. Barbolina consciously oriented herself along the lines of what is usual in Yakut and Upper Dolgan. Probably, she viewed the use of the second person singular possessive suffix to mark definiteness as a kind of Northern Dolgan "provincialism". Yet the construction was so familiar to her that she neither noticed nor changed it in three of the four examples.

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A new attempt to classify the Turkic languages (3)

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5. Northern Turkic

The Northern Turkic interactive area is mainly characterized by the tendency to rearrange the system of oppositions between (word- and sometimes syllable-)initial *y-*, the affricates and the sibilants. In most of the (sub-)units of Kipchak (except some far western ones), North East Turkic, New Uigur, and Chuvash, Old Turkic *y-* is represented as a sibilant or an affricate. An affricate is attested in older stages e.g. in Volga Bolgar or in the notation *ǰoġbu* for *yabġu*. But according to Radloff's data it must be quite young in Kirghiz. The circumstance that in Bashkir *ǰ-* becomes *y-* even in loanwords points to the fact that not the representation of Old Turkic *y-* by a fricative or an affricate itself but the whole complex of sound shifts of dental and palatal fricatives has to be considered as the main feature. These sound change systems seem to have developed individually in each unit. The loss of the opposition *č- : y-* in non-Norm Turkic Chuvash and Lena Turkic is a consistent development in accordance with this tendency.

The form *+(I)GIz* of the second person singular possessive suffix in Volga-Ural-Caucasus Kipchak and Chuvash may be a product of analogical processes, which lead to a generalization of *-G* in the second persons in Chuvash, where we find *-U* < **-(I)G* for the second person singular, while in Volga-Ural-Caucasus Kipchak only the plural of the second person is involved. There are comparable developments in Lena Turkic and Altay Turkic (see 4.2.1.); at least in Altay dialects we find *G-* forms of the second person plural. In Lena Turkic it is due to a tendency to replace *ŋ* in suffixes in intervocalic position by *G*. These developments may be inspired by a common tendency of "sporadic" replacement of *ŋ* by *g* in the whole Northern Turkic area. We also find *G* instead of *ŋ*

in the Orkhon inscriptions (e.g. Kül Tegin inscription, northern side, line 9: *öltäči ärtigiz*), in Kuman and in Middle Turkic Kipchak sources, see Schönig (1991).

A feature of Northern Turkic, except Chuvash, is the form of the first person plural suffix *+(I)BIz*, which is known from Ancient Turkic, Middle Turkic or from Southern units as *+(I)mIz*. This may be due to areal interaction in an area where drawing an analogy with the personal pronoun *biz* caused the change *m* > *b* (or the preservation of *b*: *+(I)BIz* being more archaic than the Old Turkic form?). In the same area (and in Khalaj) the accusative of the third person possessive is *+(s)In* as in Old Turkic. The area in which *qay* and *qaysï* forms of the interrogative pronoun 'which' coexist in one and the same unit (see Schönig 1995c) may somehow be connected to the Northern Turkic area as well.

Mainly in Northern Turkic we find an aversion against the combination *-rk* in syllable-final position. In some cases we see the tendency to dissolve the cluster, mainly in Western Central Asian Turkic and Northern Turkic, e.g. in Tatar *törĕk* and *qïrïq* instead of *türk* and *qïrq* 'forty'.[1] In (Lena-)Sayan Turkic we find the tendency to change *-rk* to *-rt,* but to restore it if the cluster is in intervocalic position (e.g. Tuvan *bö"rt* 'cap', *börgü* 'his cap'; Sayan Turkic *qo"rt-* 'to fear', *qorġar,* 'fears').[2] On the

[1] The latter is *xïrïx* in Khakas; Radloff has *qïrïq* for Tatar, Teleut and Shor, while Baraba, Sagay and Qoybal have alternating forms *qïrïq* ~ *qïrq*. Forms like *türk* in Khakas and Tuvan seem to be late imports into the literary languages. Other examples for dissolution of the consonant cluster are found e.g. in Bashkir *börĕk*, Kazakh *börįk*, Altay Turkic *börük*, Kirghiz *börük* ~ *börk*; in Western Central Asian Turkic we have Turkmen *börük* versus Uzbek *bŭrk*. Yellow Uigur has dissolved and undissolved clusters, e.g. *p'eryk* 'cap', but *qořx-*, *qu'r'q-* 'to hurt', see Tenišev (1976a). In the South and sometimes in Kirghiz we sometimes find the tendency to drop *r*, e.g. Kirghiz *berk*, *bek* 'strong, very', Turkish *berk* 'solid', *pek* 'very'; this tendency is very strong in New Uigur, e.g. *bä(r)k* 'solid', *bök* 'cap'.

[2] For Lena Turkic Yakut, Rassadin (1971: 221) also has *kort-*, *korgar,* which is not attested in BöWB, JakRS, RJakS and Stachowski (1993) gives *kuttan-*. Modern Lena Turkic shows this change in the Yakut particle *bert* 'very, actually'. But it also has dissolved forms like *bärgähä* 'cap' or *bärkä* 'very; powerful'. We sporadically find comparable changes in Buryat Mongol, e.g. *ten'd'er* < *tenger* 'sky', see Bertagaev (1968: 32).

lexical level we may perhaps assume **qodan* to be a "Northern" word for 'hare' (but Yakut *kuobax),* while the South prefers forms of *tabiš-ġan.*

Sometimes even New Uigur shows a closer connection to Northern Turkic. The representation of Old Turkic *sač* 'hair' as *čač* may go back to an old Kipchakoid layer, see 3.2.5. The velar form is attested e.g. in literary Karachay-Balkar, in the Altay Turkic literary language, Tuba, Qumanda and Kirghiz *čač,* Balkar *cac,* Karakalpak, Kazakh, Fu-yü, Yenisey Turkic Shor, Altay Turkic Quu *šaš*, Yenisey Turkic Qoybal, Sagay and Khakas *sas* and Lena Turkic *as* (< **sas* < **čač).* Yellow Uigur with *šač* and *sač* takes an intermediary position between the North and the South, while Salar with its **sač*-forms exhibits Southern forms exclusively. Mainly in the West we find palatalized **čäč*-forms, e.g. Tatar *čäč* or Bashkir *säs;* Chuvash *śüś* goes back to **čač* and shows secondary palatalization like Volga Kipchak. Karaim has **sač-*, **čač-* and *čäč*-forms (see KarRPS 470a). In Sayan Turkic, Karagas has something like *če"š,* while Tuvan has *ča"š* 'ženskaja kosa'. South East Turkic New Uigur units show *čač* (literary language) and *sač,* while Standard Uzbek has *såč.* The Khalaj and Oghuz forms (and perhaps under its influence, Crimean Tatar) go back to *sač.* One can assume that the *sač* > *čač* tendency became active in the North after parts of South East Turkic (e.g. the dialect responsible for the situation in Standard Uzbek) and Yellow Uigur had fallen under its influence; Fu-yü may have older connections via Kipchakoid South Siberian Turkic to Kipchak. The palatalized **čäč*-form is typical for the "Far West" (see 6.), especially for Volga Turkic; the Karagas form is quite young and has developed independently, as attested by Castrén (1857: 144), where we still find a velar form *ŧaś.*

Analogized forms of gerundial negation (e.g. **-mAp* or **-mAyIp* for the gerund in *-B)* are very rare in Northern Turkic and seem to exist mainly in Oghuz and some non-Oghuz Central Asian Turkic units like Uzbek and New Uigur, where they seem to be mostly limited to post-verbal constructions. They may have even developed here in a relatively early period when the older Uzbek-Kazakh unit still existed. But it also seems possible that they came to be as a result of later areal contacts with non-Kipchak Western Central Asian Turkic units. In any case, the fully analogized gerundial negations may be called a Southern Turkic feature.

5.1 From Northern Turkic to pre-North East Turkic

Within the Northern Turkic **y-* / *ǰ*-area we find a section of prominent progressive nasalization. Progressive nasalization of suffix-initial {D, L}-morphophonemes by means of word-final nasals is a widespread phenomenon in Turkic, although it is not regularly noted in the literary languages. The most frequent grammatical suffixes concerned[3] are those of the locative, ablative, *DI*-preterite and plural. If we ignore the ablative suffix for the time being, we see that progressive nasalization is most powerful in Lena Turkic, where it appears with the other three suffixes. With suffixes consisting of open syllables (locative and *DI*-preterite) it appears only sporadically outside Lena Turkic (e.g. in Baraba or *Qaŋlï*-Nogay). With the plural suffix **+LAr* we find it in Tatar, Central Nogay (sporadically in Aq-Nogay and Baraba), Yellow Uigur and South Siberian Turkic except Southern Altay Turkic (which behaves like Kirghiz). The ablative suffix *+DAn (+DIn)* is a special case because it ends with a nasal consonant. Consequently, we find nasalization here more often than in connection with the plural suffix, as in Tatar, Bashkir, Nogay, Karakalpak, Kazakh, Baraba, Kirghiz (mainly after possessive suffixes), Altay Turkic (but not consistently in Northern Altay Turkic Qumanda), Yenisey Turkic and sometimes in Fu-yü. Lena Turkic shows a very strange distribution of variants of this suffix with postconsonantal *+tAn* and postvocalic *+ttAn*, see Schönig (1993c).

The area of nasalized ablative forms plus that of Lena Turkic contains an area of special phonotactical rule sets. This area includes Bashkir, Kazakh, Kirghiz (sometimes Nogay and Karakalpak) and North East Turkic. Here, besides {D}-suffixes, even suffixes with initial {L} and {N} morphophonemes show different initial consonantal allophones in accordance to the rules of clusilic (in Bashkir: obstruentic) dissimilation after word-final consonants;[4] in these units the power of clusilic dissimilation is sometimes stronger than that of progressive nasalization. The languages differ considerably with respect to the word-final sounds

[3] Derivational suffixes sometimes behave differently, see Schönig (1993c).

[4] Clusilic dissimilation means that a sequence of two non-clusiles has to be dissolved into a sequence of a non-clusile and a clusile: [-clu] + [-clu] > [-clu]. [+clu]. Clusilic dissimilation was perhaps already in operation in Orkhon Turkic, at least for suffix-intial {D} after stem final [l, n], see Johanson (1979) and Schönig (1993c).

after which this dissimilation takes place. Especially in North East Turkic the internal isoglosses drawn by the rule sets do not follow patterns drawn by other features. Lena Turkic shows some structural similarities with the Kipchak languages.[5] The Kirghiz-Kipchak units Kirghiz and Altay Turkic show internal similarities, too. Another group consists of Siberian Tatar, Khakas, Karagas, while Shor and Tuvan constitute another group. Bashkir plays a special role by showing obstruentic instead of clusilic dissimilation and by having unified the suffix-initial {D}- and {N}-phonemes in one class. Therefore we find e.g. in Bashkir *inĕ* instead of Old Turkic *ärdi,* Middle Turkic *ärdi, ädi* etc. 'was'. All the languages concerned show obstruentic plus voice assimilation after voiceless final consonants.

In the eastern part of this "phonotactical area" (starting with Nogay, Karakalpak, Kazakh and Kirghiz) suffixes with initial {M} are affected by clusilic dissimilation, too; here, there is a tendency to recategorize {M} as {B}. Of the units in which initial {M} has become recategorized completely as {B} (i.e. not Tatar, Bashkir, Nogay, Karakalpak, Kazakh and Fu-yü), only Kirghiz and Southern Altay Turkic have *not* kept variants with initial *m* after word-final nasal—the same Kirghiz-Kipchak units for which clusilic dissimilation instead of nasalization of the {L}-morphophoneme of the plural suffix is attested. In South Siberian Turkic we find units with dissimilated B-forms after stem-final consonants which do not cause dissimilation in suffixes with initial {D, L}-morphophonemes.

5.1.1 Pre-North East Turkic

Inside the {M} > {B} area we find a smaller area designated by the category which Benzing (1959b) has called *participium nondum facti.* The

[5] The Kipchak and the Lena Turkic systems of clusilic dissimilation are still close to the Orkhon Turkic model (see fn. 4 and Schönig 1993c). *l* and *n* are "critical" word-final sounds which often produce *d*-variants of {L} and {N} suffixes. Perhaps these tendencies spread amongst the pre-Northern Turkic units onto other voiced consonants when pre-Lena Turkic was still close to them. After Lena Turkic and some Western Kipchak units had separated, the dissimilation tendencies remained active in the East of the Northern Turkic area and even spread onto the {M} suffixes.

area includes Kirghiz, Siberian Tatar idioms, Fu-yü[6] and North East Turkic—with the exception of Modern Karagas; the latter seems astonishing but it is another indication of the complicated mechanisms in this small unit's genesis. The category is expressed by three types of suffixes which may derive from a common root: Kirghiz and Lena Turkic have *-A elek* and *-A ilik*, South Siberian Turkic *-GAlAK* and Fu-yü Kirghiz *-GAlAš*. If we assume the Kirghiz and Lena Turkic forms to be closer to a common protoform (*if* it existed), it is not so easy to interpret the other forms as regular developments. At any rate, the distribution points to another interesting pattern: As in the case of the phonotactical rules, Kirghiz (as a Kipchak language) and Lena Turkic are bound closer together. The fact that Altay Turkic behaves differently from Kirghiz shows that the final establishment of the category's formal sign must have occurred after the dissolution of Kirghiz-Kipchak, which still may have existed as a unit when the category itself developed. The precursor of Fu-yü Kirghiz must have had closer contacts to the predecessors of South Siberian Turkic, but was then independent enough to create a slightly different form.

A specialty of Kirghiz-Kipchak and Yenisey Turkic is unification of suffix-final consonants of the genitive *+nIŋ* and ablative *+DAn*. They became *n* in Kirghiz and *ŋ* in Altay and Yenisey Turkic and in Chulym Turkic Küärik. Firstly, this feature again demonstrates the strong tendency towards morphophonemical unification and analogization in this area. Secondly, it perhaps reveals the process of differentiation and reformation of a Turkic (genetic or areal) sub-group: An older Kirghiz-Kipchak / Yenisey Turkic unit split into Kirghiz and Kipchakoid South Siberian Turkic. A comparable borderline between Kirghiz and Kip-

[6] For Fu-yü Kirghiz, Hu & Imart (1987: 35) note that this form is "often" used as a negation of the perfect participle in *-GAn*. Unfortunately the materials do not include text examples of this use. Perhaps the additional meaning 'castrate' of *at* (normally 'horse') in Northern Kirghiz (see KrgRS 77a; Radloff I: 442a, gives for Altay (dialect) and Kirghiz *at* only 'das beschnittene Pferd, Wallach') and Lena Turkic (BöWB 3b) can be considered another common feature of these two units. Both meanings have survived in Lena Turkic even in the denominal verb *atta:-* (< **at+la:-)* meaning 'to provide with a horse' as well as 'to castrate', see Schönig (1988). For *at* in general see Doerfer (1965: 4-5).

chakoid South Siberian Turkic is drawn by the distribution of velarity / palatality of the numeral 'twenty', see 3.2.5. and 6.1.

6. Western Turkic and Eastern Turkic

An archaic feature of Lena Turkic leads us to another strongly oscillating borderline beneath the Turkic languages, which divides them into an eastern and a western part. It runs through the Kipchak group and the Central Asian Turkic area; Kirghiz-Kipchak, Siberian Tatar, North East Turkic, Uzbek and South East Turkic mostly behave like Eastern Turkic, Kazakh and Karakalpak often have a transitory status. Lena Turkic is the only Turkic language which has kept the old double meaning 'god' and 'sky' of Old Turkic *täŋri*. This word appears in the West with back vowels (e.g. in Turkish *tanrï,* Turkmen *taŋrï* or Chuvash *tură* < **taŋrï* ~ **taġrï*), in the East with front vowels. The only exception in the East is Lena Turkic, which shows a velar variant (Yak. *taŋara).*[7] A comparable distribution can be found for the verb **bïraq-* 'to let, etc.', which is preserved in Western Turkic (Western Oghuz, Chuvash and many Western Kipchak units) and Yakut (see Sevortjan 1978: 307).

Whereas the East is more conservative regarding the vocalism of **täŋri,* the West and Lena Turkic are more conservative with respect to the personal plural marking strategies. In Central Asian Turkic and South Siberian Turkic the plural sign *+z* has entered into competition with the plural sign **+lAr* in the second person. As a result we now find in non-Oghuz Central Asian Turkic—e.g. in Uzbek, Kazakh, Kirghiz and New Uigur—paradigms of politeness. Here, *sen* and the possessive suffix *+ŋ* designate a second person singular of equal or lower rank than the speaker, *senler* and **+ŋlAr* are used as plural forms; *siz* and *+ŋIz* designate a second person singular of higher rank and have the plurals *sizler* and *+ŋIzlAr*. In South Siberian Turkic the personal plural sign has vanished completely in the second person. There, no paradigms of politeness have developed; for the second person plural forms like *siler* or *sirer* are used as pronouns, **+ŋAr* as possessive suffixes.

[7] For *täŋri* see Doerfer (1965: 577-585). Perhaps it belongs to the Turkic words which become velarized in Lena Turkic if they contain velar or guttural consonants, e.g. Yakut *uŋuox* 'bone' < **süŋ(g)ök* (see Schönig 1988). A comparable phenomenon is found in Chuvash (see Benzing 1959c: 705).

A third archaic Eastern Turkic feature shows a similar distribution: The treatment of syllable-final *ġ*-sounds in the keyword **taġlïġ*. Contrary to Western Turkic Oghuz *(*daġlï)* and Western-Central Kipchak with Chuvash *(*tawlï)* and Kirghiz-Kipchak *(to:lu:)*, the Eastern Turkic units have preserved both velar obstruents—again with the exception of Lena Turkic, which has a contracted form *tïa* with the deviant meaning 'mountain forest', found in Sayan Turkic, as well. In Eastern Turkic the word is preserved as **taġlïġ* in Yenisey and Sayan Turkic and Yellow Uigur, while in South East Turkic these sounds show a strong tendency to desonorization *(*taġlïq)*, as can be seen in New Uigur and partly in Uzbek. The far eastern Border Turkic units Salar and Fu-yü have desonorization even of the final *-ġ* in **taġ (daxlïx)*. Khalaj, with *tāᵃġlug*, fits with Eastern Turkic like Lena Turkic often fits with Western Turkic.

Like Western Turkic and Lena Turkic, sometimes Eastern Turkic and Chuvash correspond. A common archaic feature of Eastern Turkic (excluding Lena Turkic) and Chuvash is the survival of the Old Turkic negative present tense copula **ärmäz* (čuv. *măr)*. Of Western Turkic, Oghuz together with some Kipchak and South East Turkic units have forms going back to something like **tägül*. For Khalaj *da:g* see Doerfer (1971: 174). In other cases Lena Turkic clearly belongs to the Eastern Turkic area. The Eastern Turkic units have preserved the Old Turkic form of the verb 'to come to an end, to finish' as **ṭ̈büt-* (in North East Turkic, Kirghiz, Kazakh, Karakalpak and South East Turkic) and not as (more archaic) **bit-* like in Western Turkic. Furthermore, the Old Turkic word pair *yïltïz : yultuz* ('root' : 'star') is preserved in some North East Turkic units, in Yellow Uigur and in South East Turkic Uzbek and New Uigur; in most of the other modern units the old word for 'root' has vanished.[8] At least in some Eastern Turkic units it is still possible (like in Old Turkic and Middle Turkic Chagatay) to add the passive suffix *-(I)l-* to verbs ending in *l*, e.g. Yenisey Turkic Khakas *alïlča* 'is taken';

[8] Uzbek has *ildiz : yulduz*, New Uigur *yiltiz : žultuz*, Lena Turkic *sïlïs : sulus*. In Sayan Turkic we find, instead of forms with regular *y-* > *č-* sound change, forms with *y-* > *s-*, like Karagas *sïldïs* (see Rassadin 1971: 229-230) or *sèltès* (Castrèn 1857) meaning both, 'star' and 'root'. In modern Tuvan the meaning 'root' seems to be lost. Furthermore we find the old word for 'root' in Yellow Uigur *yïltïs, yiltïs*, Küärik *yïldïs* and in Kyzyl something like *šïltti* (see e.g. Sevortjan 1974: 350), Soyot *yïltïs* (Radloff III 488), Sagay *čïltïs* (Radloff III 2087).

modern Western Turkic idioms regularly apply *-(I)n-* in these cases. Lena Turkic uses *-n-* after vowels and *-lIn-* after consonants except *y*.

It is easy to see that Eastern Turkic is in many regards closer to Old Turkic than Western Turkic. The aforementioned preservation of *+DIn-* ablatives in e.g. New Uigur, Chulym Turkic and Northern Altay Turkic is another example of Eastern Turkic archaisms. But—as in the case of the personal plural sign *+z*—there are renewals in Eastern Turkic, too. Thus, in Eastern Turkic, mainly in Western Central Asian Turkic, Kirghiz and Kipchakoid South Siberian Turkic (but not e.g. Yellow Uigur) have replaced the form **qač* 'how much, how many' by forms of *qanča*. In Sayan Turkic the form **qač* exists as *qaš* in Tuvan. In Karagas we find *qa"š* besides the form *qańǰa*. The same situation as in Karagas is found in Lena Turkic with Yakut *xačča*, Dolgan *kačča* < **qanča* and Yakut *xas*, Dolgan *kas* < **qač*, cf. 3.2.4.2. Many Eastern Turkic units (except the Lena-Sayanic ones) show a tendency to create new present tense forms by using *-A / p yatïr / yatar* forms.

In the same way that some Eastern Turkic features are concentrated in the "Far East", some Western Turkic features appear mainly in the "Far West". So, the words for 'tree' have archaic forms in the "Far East" and in Khalaj *haġač* (under Western Oghuz influence < **hiġač* ?, see Doerfer 1995). We find the Western Turkic form e.g. in Oghuz or in Kipchak (e.g. Tatar, Nogay, Kazakh, Karakalpak), but also in Kipchakoid South Siberian Turkic, e.g. Khakas *ạġas*, Shor, Altay Turkic *ạġaš* or Tuba *aŋaš;* Fu-yü has *agaš, agïš, aγeš* (Hu & Imart 1987: 15), Salar *ạġaš*. Chuvash has *yïvăš,* which has to be connected to the Western Turkic form. Interestly, Kirghiz behaves differently from Altay Turkic, like an Eastern Turkic unit, by showing forms which point back to initial **y-*. It has *ǰïġač*, which belongs to forms like Lobnor *yïġač* or Yellow Uigur *yiġaš*. South East Turkic occupies an intermediary position with initial *y-* but a low vowel like New Uigur *yaġač,* Uzbek *yåġåč*. The Sayan Turkic forms Tuvan *ïyaš* (with nasal *y)*, Karagas *ñeš* (see Sevortjan 1974: 71-72) point to the eastern protoform, too, but show the specific nasalization which sometimes appears with *-ġ-* at the first syllable border.

The distribution of the main auxiliary verbs for denominal verb derivation *et-* and *qïl-* forms a comparable pattern at the same time reinforcing the Lena-Sayan Turkic : Kipchakoid South Siberian Turkic antagonism (see 3.2.5.). Oghuz, Kipchak, Kipchakoid South Siberian Turkic and Salar are more closely connected by the dominance of *et-*; in modern Turkish, *yap-* is offensively taking over the function of *et-*. Mainly in

Oghuz—but with e.g. Tatar evidence, too—the auxiliary verb *ädlä-* has survived in the "Far West", see Clauson (1972: 57a-b) and Sevortjan (1974: 248-249); it is very frequently used in Azeri. Chuvash has its own unit *tu-*. Mainly in South East Turkic, including Uzbek and New Uigur, we also find the old auxiliary *qïl-*, now restricted mainly to contexts of dignity in Oghuz and Kipchak, still widely functioning. It has retained this role in Lena-Sayan Turkic, which does not have *et-*, see 3.2.4.1. In onomatopoeic derivations we especially find **qïn-* in Sayan Turkic Karagas and Lena Turkic, see 3.2.4.2.

6.1 The Turkic numerals

The distribution of the forms of some Turkic numerals is somehow connected with the Western Turkic: Eastern Turkic division. The Old Turkic numeral **bïŋ* 'thousand' has a palatal vowel in Western Turkic; in Turkmen *müŋ* it additionally is labialized. The South East Turkic forms in Uzbek and Uigur *miŋ* can be interpreted as **bïŋ*, too; but as shown by Kirghiz *miŋ*, one also encounters palatal forms in Eastern Turkic, which normally has *miŋ* (e.g. in Nogay, Karakalpak, Kazakh, Baraba, Chulym Turkic). In North East Turkic, except Chulym Turkic, the vowel additionally is labialized: *muŋ*; for the situation in Lena Turkic and Karagas see 3.2.4.2.

The forms of the numeral 'twenty'—if not replaced, see Part 1, fn. 7—have word-final low vowels in many Eastern Turkic units *(*yïġïrma* or *yigirmä)*;[9] only Khakas *čibĭrgĭ* and Tuvan *čä:rbi* show high word-final vowels (**yägirmi*; a similar form is reflected in the Babur-name, too). The shortened metathetical form *ǰibir* in Fu-yü should be traced

[9] We find velar forms *(*yïgïrma)* mainly in the Eastern Turkic area, i.e. in Nogay, Kazakh (*žïyïrma)*, Karakalpak, Kirghiz (*ǰïġïrma)*, in Uzbek dialects, in Chulym Turkic Küärik (but Radloff's Küärik has *yigirbä)* and, in a western extension, in Caucasus Turkic Karachay, Balkar and in Kymyk dialects; mainly in Kazakh, Karakalpak and Caucasus Turkic we sometimes find at least one *i*-sound. Palatal low word-final vowels *(*yigirmä)* are attested in South East Turkic Uzbek *yigirma* and New Uigur *ǰigirmä* (for variations in Uigur dialects see Pritsak 1959c: 547), in Baraba *yĕgirmä*, Altay Turkic *d'irme*, Radloff's Altay *yi:rmä* and Qoybal *yibirgä*. Lena Turkic with its **sü:rbe* forms shows a mysterious labial vowel in the first syllable, and its final low vowel may be secondary (as in the case of the third person possessive suffix).

back to a form of the Khakas type, especially if we consider the many other features these two Turkic units share. Finally, there are forms like **yägirmä* in South Siberian Turkic Quu, Qoybal, Shor (*čägirbä*), *yägärbä* (in Radloff's Quu materials) and *yärvä* in Chulym Turkic. In Radloff's Karaim of Troki the form *igirmä* exists, too, but it may be an independently developed metathetical form of **yägirmi,* which has survived as *ägirmi* in Radloff's Karaim of Luck and *yägrimi* in Crimean Karaim (see Radloff 1893-1911 and Xafuz 1995). Mixed front-back forms appear e.g. in Karakalpak (*čigirma)* or in Radloff's Kazakh or Taranchi materials. The various Yellow Uigur sources show *yiγïrmo / ǰiγïrmo* and *yigirmi* (see Tenišev 1976a: 72, Sevortjan 1989: 201). The form **yigirmi* appears in Salar, too, and is the predominant form in Western Turkic, i.e. Khalaj, Oghuz, Crimean Tatar, Karaim, Volga Kipchak and Chuvash (*śirem).*[10]

As to the numerals with intervocalic consonants, we do not find such a relatively clear distribution for the numerals either having "strong" forms with doubled or *fortis* or "weak" forms with single or *lenis* consonants.[11] Here only a few features observe the Western Turkic : Eastern Turkic borderline, whereas others seem to be bound closer to other interactive areas or even to genetic strings. Thus Chuvash once again constitutes a separate group by showing both series, Khalaj and South East Turkic Uzbek and New Uigur by generalizing the "strong" forms,[12] whereas Sayan Turkic only uses "weak" forms. In Lena Turkic we find weak forms for 'eight' and 'nine' and perhaps 'thirty' (with closed final syllables) and strong forms with doubled consonants for 'two' and 'se-

[10] From a phonetical point of view, it seems plausible that the basic form was velar and lost its velarity later on through the influence of word-initial **y-* —and perhaps additionally by analogy to the semantically corresponding **eki* 'two'. But one should keep in mind that this numeral is a composite form consisting of a palatal and a velar part. On the other hand, the distribution of the **yigirmi* forms could easily be explained as the preservation of an archaic form at both ends of *Turcia.*

[11] In accordance with Johanson (1986b), I consider the question of fortis and lenis consonants to be directly connected with short and long vowels of the first syllable, so that there is no need to discuss their distribution separately.

[12] This intervocalic consonant doubling occurs in many other words in South East Turkic, as well.

ven' (with open final syllables); there are some similarities with the Lena Turkic system, especially in Yenisey Turkic Khakas and in non-"far western" Kipchak, see the data given below. All these units can be suspected of having developed their numerals by means of internal normalization processes.

For the numeral 'fifty' (replaced by analytical forms in Sayan Turkic, Lena Turkic and most Altay Turkic units, see 3.2.2.) the strong form **ällig* mainly appears in Western Turkic (Khalaj, Oghuz, Volga-Ural-Caucasus and Western Central Asian Turkic-Kipchak), while the weak form **älig* dominates in the East, i.e. in Radloff's Altay Turkic Teleut *(ölü),* in Yenisey Turkic, Chulym Turkic and Kirghiz.[13]

For the remaining numerals with intervocalic consonants the distribution is not so clearly connected with the Western Turkic and Eastern Turkic areas. Only for 'seven' may we assume a comparable distribution. Here a weak form **yädi* is dominant in Western Turkic units such as Tatar, Karaim, Crimean Tatar and Oghuz except Azeri; the latter shows *yeddi*, with a doubled—but at least weak—intervocalic consonant, a form which perhaps developed analogously to the neighboring numerals *säkkiz* 'eight' and *doqquz* 'nine'. Of units located further east, Baraba shows *yädi* forms, too. In the Kipchak units Bashkir, Karachay, Balkar, Nogay, Karakalpak and Kazakh as well as in Kirghiz, Chulym Turkic and Yellow Uigur the forms for 'seven' can be reconstructed with a single *-t-* as **yäti* (as in Sayan Turkic). The remaining South Siberian Turkic units (Altay Turkic *ǰäti,* Yenisey Turkic Khakas *čitĭ,* Shor *čätti*) and Fu-yü *(čiti)* point to a protoform with doubled consonant as in Lena Turkic and Caucasus Kipchak Kumyk. If so, then weak forms of 'seven' can be considered a Western Turkic feature. Taking into account the three protoforms **yädi, *yäti* and **yätti*, we may call the form **yädi* of the Kipchak units in the "Far West" weak (despite the fact that intervocalic *-t-* normally does not become sonorized to *-d-* in any Kipchak

[13] This is more or less the same area where the analogization of case-suffix-final nasal consonants has taken place, see 3.2.5. We do not know about Altay Turkic because the numeral is replaced here by an analytic derivation. But we may assume that the whole Kirgiz-Kipchak group had **älig*. We have thus gained another feature which ties Kirghiz closer to North East Turkic while at the same time separating it from the rest of Kipchak.

unit), the widespread **yäti* a non-weak form, and Eastern Turkic **yätti* the strong form.

The situation for 'thirty' is less illuminating. Most of the Turkic languages, which have preserved this numeral and do not belong to the normalizing units mentioned above, show **otuz* forms with a single intervocalic *-t-*. In parts of Chulym Turkic materials, in Yenisey Turkic Shor and Altay Turkic we find something like **odus*, which can be interpreted as a (weak) form of the **otuz* type.[14] The form *otïs* in South Siberian Turkic Yenisey Turkic Khakas (and partly Chulym Turkic), the *otus* forms in Altay Turkic and perhaps Fu-yü *otus* have to be interpreted as strong forms.

For 'two' we find **eki* forms with intervocalic *-k-* in most of the units except Sayan Turkic, Yenisey Turkic Shor and Chulym Turkic, which have weak forms, and consonant doubling in South East Turkic, Lena Turkic and Khalaj (see above); Yellow Uigur displays *išqï, šïkï, iškï, šike, ški*. In Kipchak as well as in most Kipchakoid South Siberian Turkic units and perhaps in Fu-yü, *-k-* forms have to be interpreted as strong because of the intervocalic weakening of simple *-k-*. The situation in Oghuz is not that clear, but interpretation as a strong form seems very probable to me.

For 'eight' and 'nine' we find in the non-normalizing units strong forms of the **sekiz* / **toquz* type in Oghuz except Azeri, which has forms with double consonants even for 'seven' (see above); Yellow Uigur has *sekes, sekïs, sak'ïs, sa:qïs; to'qïs*. In contrast, the Kipchak languages and South Siberian Turkic have weak forms with intervocalic *-G*-sounds. Of the Kipchak units, Baraba has a strong form for 'eight' but a weak one for 'nine'; Crimean Tatar, on the other hand shows strong forms (perhaps a result of Turkish influence).

[14] Here I would like to briefly specify what has been said about the loss of the verb *toġ-* 'to give birth / to be born' in 3.2.3. Thanks to my dear colleague Irina Nevskaya, I learned that I had forgotten to mention that such a verb still exists not only in South Siberian Turkic Altay Turkic but also in Yenisey Turkic Shor (see e.g. Radloff III: 1422 *toġ-* 'gebären' in Altay Turkic Altay (dialect), Teleut and Yenisey Turkic Shor).

7. Conclusion

I hope that I have been able to demonstrate that a meaningful classification of the Turkic languages cannot be based on genetic features alone. In the course of time, genetic groups like Oghuz, Kipchak, South East Turkic etc. underwent internal differentiations and broke up into subgroups which separated from each other, entering linguistic interaction with other Turkic as well as non-Turkic groups. During their respective development, these subgroups were able to retain some of their genetic features or even to transfer them by means of areal interaction onto other units and subgroups; other features were either modified or completely lost under the influence of other units of the interactive area to which they belonged. Good examples of such developments are e.g. the interaction between Chuvash and Kipchak, Khalaj and Western Oghuz, Oghuz Turkmen and Western Central Asian Turkic or the shaping of North East Turkic / South Siberian Turkic. Especially in the latter case, we witness the evolution of a new areal group of Turkic through the interaction of different genetic subgroups (at least Kirghiz-Kipchak, Yenisey Turkic, Sayan Turkic and Lena Turkic) and non-Turkic units (at least Mongolic, Samoyedic, Yeniseyic and, partly, Tungusic). At the same time, we observe the dissolution of Kirghiz-Kipchak. Other areal formations, such as the Oghuz-Chuvash or the Kipchak-Lena Turkic connection, are more enigmatic and deserve more detailed investigation. It is worth reiterating that genetic groups may also result from old areal interaction, i.e. perhaps they, too, originated as areal groups.

I have tried to present my classification attempt in a way which enables the reader to understand the assumed underlying processes of genetic heritage and areal interaction. The matter, however, is so complex that I can not be sure whether I have been completely successful. Having presented all these data, I should now summarize my assumptions about the development of New Turkic coherently—even if I could only take into account a relatively small percentage of New Turkic data and have not discussed the Middle Turkic and Ancient Turkic materials in very much detail. But having occupied the reader's attention long enough and tried the editor's good will to publish such an extended paper, I have decided to do that in a separate article.

I would be very satisfied if this paper gave some new impulses to the discussion about the classification of the Turkic languages.

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