

# Werk

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

Autor: Dwyer, Arienne M

Ort: Wiesbaden

**Jahr:** 1998

**PURL:** https://resolver.sub.uni-goettingen.de/purl?666048797\_0002 | LOG\_0012

# **Kontakt/Contact**

<u>Digizeitschriften e.V.</u> SUB Göttingen Platz der Göttinger Sieben 1 37073 Göttingen

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

# Arienne M. Dwyer

Dwyer, Arienne M. 1998. The Turkic strata of Salar: An Oghuz in Chaghatay clothes? *Turkic Languages* 2, 49-83.

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.

Arienne M. Dwyer, Institute for Oriental Studies, University of Mainz, D-55099 Mainz, Germany.

### 1. Overview

Salar (salar gahtfa) is a mixed language of Turkic origin with close to 70,000 speakers. 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).

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 Salir.<sup>2</sup> 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.<sup>3</sup> 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

Polyakov: 96; Encyclopedia of Islam 4: 120, cited in Sālāzú shĭliào 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 ~ i.

<sup>&</sup>lt;sup>3</sup> 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.<sup>4</sup>

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.<sup>5</sup>

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

- 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.
- 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.

52 Arienne M. Dwyer

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 Sarigh 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 (1969²), 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 Sarigh 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 - $\gamma$  in e.g.  $ta\gamma$  'mountain'; post-consonantal  $\gamma$  as in  $qal\gamma an$  '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').

### 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, Sarigh 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:

Salar has however \*d > d in at least one form, probably a borrowing from Northern Turkic:  $jalan \ adax$  'barefoot'.

- 1. -j- and - $\gamma$  (from \*d and \* $\gamma$ ), i.e., both have ajaq 'foot' and ta $\gamma$  'mountain' (Common Tkc \*adaq, \*ta $\gamma$ ); (OT aja $\gamma$ ).
- 2. Both languages have initial j- (jol 'road'), not &- as in Qipchaq (&ol 'road') (OT jol).
- 3. Both have f while Q\"ipchaq has s (taf vs. tas 'stone', cf. CT \*ti al (Poppe), 8 (OT taf).
- 4. Both often delete r in syllable-final position (e.g.  $\varepsilon t \varepsilon$  'morning', OT  $\ddot{a}rt\ddot{a}$ ).

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 -mis 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:  $*-\gamma > \gamma$  in initial syllable codas, e.g. Tkm.  $da\gamma$  'moun-

- 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/ +  $-\circ f \rightarrow [\text{varif}]$ ); Anat = Anatolian; Az = Azerbayjani; Chag = Chaghatay (Poppe 1953); Chuv = Chuvash; CT = Common Turkic; C.Tv. = Tuva spoken in China; Kāš. = Dīvān luyāt 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 = Sarigh Yoghur (Sari 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.  $-DZi = [-dxi \sim -t]^hi$ ; for post-palatal obstruents it also denotes non-specification for backness, e.g.  $-Q = [-k^h \sim -q^h]$ . For vowels, it denotes non-specification for backness, e.g. -A  $[-a \sim -a]$ .
- <sup>8</sup> The so-called Common Turkic  $*l^2$  in  $*tial^2$  is one of two reconstructed varieties of \*l.

tain'; Std. Turkish  $(da\S [da:]$  'id.',  $[da\gamma i]$  'mountain-3.sg.poss.'), but \*- $G > \emptyset$  in non-initial syllable codas, e.g. OT  $jada\gamma$  'on foot'; Tksh., Tkm. jaja 'id.'; Tksh. ulu 'great, high'; many \*t > d and \*k > g (e.g. Tkm. gel- 'come'); \* $\delta$  (=\*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 -mif 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.

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

56

### 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 dab 'mountain', but tut 'to hold', cf. Uyghur  $ta\gamma$ , tut-, Salar  $da\gamma$ , tut-).

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  $da\mathbf{E}$ , tut-), but there are many counter-examples (e.g. Tkm. dyf 'dream'). Others have suggested that initial obstruents are voiced before front vowels, <sup>10</sup> e.g. Tkm. gel- 'to come',  $d\phi rt$  'four'; but a few counter-examples can also be found, such as Tkm.  $k\phi p$  '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. <sup>11</sup>

Excluding onomatopoetic words, such as Turkish kekele- 'to stammer'.

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<sup>12</sup> and Salar, Tuva and Sarigh Yoghur<sup>13</sup> also have this dual-reflex feature. However, in Salar and Sarigh Yoghur the phonemic voicing distinction (*t-d*, *k-g* etc.) is realized phonetically as an aspiration distinction. Menges (1995<sup>2</sup>) 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<sup>2</sup>)

Orxon Turkic	Oghuz-Turkic	Salar	Southeastern Turkic
* <i>b</i>	<i>b</i> , <i>v</i>	/b/, /p/, /v/	b, p
* <i>t</i>	t, d	/t/, /d/	t, rarely $d$
*k/q (*K)	k, g	/k/, /g/	k
* tf	tf	/g/	tf

A major subset of lexical items with initial phonemically voiced stops /b- d- g- g-/ 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.
- Sporadic initial consonant voicing also occurs occasionally in the Qïpchaq languages; e.g. Qumïq *gifi* 'person', cf. Qaz., Qïrgh., Turkish, Özb. *kifi*; Qumïq *gel* 'to come', *gør* 'to see', *gir* 'to enter', but *kir* 'mud, filth' (Tenišev 1984: 195).
- Tuva is part of the South Siberian Turkic group; and Sarigh Yoghur is probably related to South Siberian Turkic. On the latter, see Geng & Clark 1992.

Table 2. Initial stop voicing in some Turkic languages<sup>14</sup>

CT	O	GHUZ		SIBE	RIAN TURI	KIC	QÏPCH	Е. Ткс	GLOSS
	Salar	Std.	Turk-	Sarïgh	S. Sib.	XJ	Qazaq	Uyghur	
		Turkish	men	Yoghur	Tuva	Tuva			
*b	bitir-	bitir-	bitir-	puttur-	bydyr-	bydy-	bitir-	pyttyr-	'finish'
*b	bol-	ol-	bol-	bol-	bol-	bol-	bol-	bol-	'become'
* <i>t</i>	tut-	tut-	dut-	tut-~tuht-	tut-	dut-	(usta-)	tut-	'grasp'
*t	da∫	taſ	da:f	tas~tahs	da∫	da∫	tas	ta∫	'stone'
* <i>k</i>	gøz	gøz	gøz	køz	(karak)	(karak)	køz	køz	'eye'
*q	G <del>i</del> ∫	ki∫	Gi∫	$q \partial s$		k¥∫¥n	qis	qi∫	'winter'
* tf	tfix -	tfik-	t∫iq-	(un-)		(ynø)	∫ɨq-	tfiq-	'emerge'
* tf	dzidzex	tficzek	gyl	f yckyk	tfetfek	djedjek	ſe∫ek	tfetfek	'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 *gymyf*, Xasarli Turkmen *gymyf*, but Literary Tkm. *kymyf* 'silver' (Tenišev 1984: 194). Comparing Turkmen and Sarigh Yoghur, which both have underlying voicing, we have Turkmen *fatla*- 'to chop', but Sarigh Yoghur *dzahp*-.

Next, there is the synchronic question: Do such initials contrast underlyingly in aspiration or voicing? Salar has underlying /b d g G/, realized initially as voiceless unaspirated [p t k q] or as semi-voiced [B D G]. 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-

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 Sarigh 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,  $t^h$ ,  $t^h$ 

[p]uref 'wrinkles' [p $^h$ ]urni 'nose' [t]ox 'lid' [t $^h$ ]ox 'chicken'

[k]illa- 'to be overly heavy' [kh]illa- 'to be hurried, urgent'

[q]uf 'bird of prey'  $[q^h]us$ - 'to vomit'

[tʃ]eŋna- 'to steam' [tʃh]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 Sarigh Yoghur) obstruents are distinguished on the basis of aspiration, whereas obstruents of all other Turkic languages have a voicing distinction.<sup>15</sup>

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 Sarigh 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).

<sup>15</sup> 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<sup>2</sup>: 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 Sarigh 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, tf/d, etc as follows:

Table 3. Representation of initial stop voicing in Salar

Underlying	Represented as	Surface	Gloss
/bitir-/	bitir-	p uth ir-	'to finish'
/purun/	purn <del>i</del>	p <sup>h</sup> urnə	'nose'
/tut-/	tut-	$t^h u t^h$ -	'to grab, hold'
/da∫/	daſ	taſ	'stone'
/gøz/	gøz	køz	'eye'
/Gi∫/	Gi∫	$q\iota f$	'winter'
/tʃat-/	tfat-	tf"atf"-	'to chop'
/dzidzek/	фіфех	фіфеç	'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 Sarigh Yoghur are Oghuz languages. Yet both have Salar-type (i.e. Chinese-type) phonetic implementation rules: The surface forms in Sarigh 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.<sup>16</sup>

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  $ta\gamma l\ddot{\imath}$  'mountainous', dahli 'sweet', cf. Tksh.  $tatl\dot{\imath}$ ; Az.  $dadl\dot{\imath}$ ; Uy. tatliq). This constitutes Poppe's third classificatory criterion,  $*lV\gamma > -l\ddot{\imath}$ , -lu). <sup>18</sup>

Here I hypothesize that stop voicing *does* support the Oghuz hypothesis. Nonetheless, with some more precise transcriptions of Tuva and Sarigh 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.

Most scholars (e.g. Menges 1995²) 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.

Western Turkic includes Oghuz, Qïpchaq (except Qïrghiz), and Chuvash (Schönig, in this issue). Hahn (1988: 261-262, 268) suggested that -ll was exclusively an Oghuz feature.

<sup>\*</sup>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 -mif

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 ge:mif 'S/he came' (marked; often implies 'I heard / I think / it seems') cf. U ge:dgi 'S/he came (I saw)' (unmarked; often implies 'I know / saw / am certain')
```

The presence of this dual-function -mif 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 -mif 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, -mif does occur in non-Oghuz languages such as Yakut (as a perfect) and Chaghatay (as a perfect / inductive). Hence -mif is neither typical of nor exclusive to Oghuz Turkic.

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

The functional parallelism of -mif 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 -mif is preserved as an archaism from Old Anatolian Turkish (Brendemoen 1997).

That -mif 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 -mif has been severely narrowed, and perfect aspect and evidentiality / inductivity are marked otherwise.<sup>19</sup>

Thus, evidence suggests that indirective -mif 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  $da \sim de \sim ta \sim te \sim ti$ ) 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).<sup>20</sup>

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: is telegraphical temporal sequential temporal sequentia

In modern Uyghur, -mif 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(1)mif 'S/he supposedly came (but I don't believe it)'.

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<sub>2</sub> is a complement to V<sub>1</sub>, e.g. Dimur jol jasamif de tonlamif '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	seczie		dodax		sayir	el
Turkmen	sertfe		do:daq		ker	el
Azerbayjani	sär tfä		dodak		sayir	äl
Std. Turkish	sertfe		dudak		sa:ir	el
SIB. TKC						
Sarigh Yoghur	qoγaş~GohGaş	3	dəmsəy	,	teŋə	ələy
S. Sib. Tuva	bora-xirilee		erin		dylej, kula: qadɨγ	xol
QÏPCHAQ						
Qazaq	torγaj		erin		saŋəraw	qol
Е. Ткс						
Uyghur	qu∫qaʧ		kalpuk;	lep	gas	qol, ilik
	'right (side)'	'm	ud'	'leg, shir	ı'	
OGHUZ						
Salar	SiX	pa	lfix	inczix		
Turkmen	say	pa	lťik	bu:t 'leg	,	
Azerbayjani	say	pa	ltf <del>i</del> g	baczag '	leg'	
Std. Turkish	sa:	ba.	ltf <del>i</del> k	enczik 'le	ower part of the leg',	badzak 'leg'
SIB. TKC						
Sarigh Yoghur	oŋ	<b>\$</b> 01	lbaq	but ~ bə		
S. Sib. Tuva	oŋ	ţfil	firiq	but 'leg,	foot'	

<b>Q</b> ÏPCHAQ			
Qazaq	oŋ	batpaq	but 'leg'
E. TKC			
Uyghur	oŋ	batqaq	put, patfak

The correspondence of Salar sedje 'sparrow' with Oghuz <sertfe> is particularly important. Al-Kāšgharī (folio 541) gives <sedje> 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 <jayïr>. For 'leg, shin', Chaghatay has <indyk>; Qarachay *intfik* 'ankle'; Balqar *indzik* 'id.' (Räsänen 1969: 172); Bashqurt *ensek* < \**intfik* (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:

```
bidzin 'monkey' Uy., Öz., Ta., Tksh. majmun; Az. mejmun; Tkm. majmin; Qaz., Qïr. majmil; S.Sib. Tv. sarabafqin, XJ Tv. metfin; SY bedzin

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), d, and n (from Old Turkic \*d, \*d, \*f, \*j, respectively). While systematic in Siberian Turkic, Old Turkic \*d, \*f, \*j usually result in j (ajax 'foot'), f (fix- 'to emerge'), and f (fix- 'to emerge'), respectively, in Salar.

Table 5. Siberian Turkic-type elements in Salar

OLD TURKIC	*d	*adiγ; Kāš. <aðiγ></aðiγ>
S. Sib. Turkic	d	S.Sib. Tuva adig, C.Tuva advx
Salar	/t/	atix 'bear' (cf. Tksh., Az., Tkm. aji
Old Turkic	<qud-></qud->	
S. Sib. Turkic	t	Sojon kut ~ kudar-;
	z	C.Tv. kut-; SY Goz-; Uy., Qaz. quj-
Salar		xoder-'to pour'
Old Turkic	<adaq></adaq>	
S. Sib. Turkic	z	SY jaləŋ azaq
Salar	/d/	jalaŋ adax 'barefoot'; (cf. Tksh. jalin ajak;
		Az. jalin ajag; Tkm. ajak jalaŋaʧ)
Old Turkic	Kāš. <jad-></jad->	
S. Sib. Turkic	<b>Z</b>	SY jaz- 'to spread, spread out, to sun'
Salar	/z/	jaz- 'to sow, spread' (cf. Uy. jaj- 'to spread out')

OLD TURKIC	*t	Chag. <äffä> 'elder sister, younger aunt'
S. Sib. Turkic	d5	Khaqas ida 'mother'; SY ida ~ eda ~ eda 'aunt';
		cf. Yakut ijæ 'mother'
Salar	/ʤ/	i&a 'mother'; cf. WMo. e&i 'mama'; Tkm. äfä
		'wife, mother'
OLD TURKIC	*j	Kāš. <jäm> 'fodder, food; herbal medicine'</jäm>
S. Sib. Turkic	n	Shor näm 'bait'; Khaqas ne-mis 'bait'
Salar	/n/	neme 'food'
Old Turkic		<i>jene</i> '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 *idga* 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-Qïp-chaq and South Siberian Turkic, yet differs from Uyghur, is the deaf-fricativization of Common Turkic \*f > f syllable-finally:

```
af- 'to open' <*hatf-; EWT <atf->; Uy. atf-; C.Tv., Qaz. af-; SY a(h)g-
efgu 'goat' C.Tv. \phi fgy, SY gug \rightarrow \sim gugu; Qaz. efki; (but Qïr. etfki);
cf. Uy. \phi tfk \in; Tksh., Az. ketfi, Tkm. getfi
```

68 Arienne M. Dwyer

```
lefgi 'slender'<sup>21</sup> <* inf k\vec{a} = K\vec{a}\vec{s}. < jinf ge>; Uy. inf ik\vec{e}; C. Tatar inif k\vec{e} ~ nif k\vec{e}; C. Qaz. \vec{d} inif k\vec{e}; C. Qirg. if k\vec{e} ~ nif k\vec{e}; SY \inf igi ~ \inf ige [metathesized]; C.Tv. \vec{d} iji\vec{e}; Tksh. in\vec{d}\vec{e}, Az. in\vec{d}\vec{e}, Tkm. i:n\vec{d}\vec{e}
```

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 i (historically) is preserved in Salar, as it is in both modern Qipchaq and Oghuz languages. This differs from modern Uyghur, where \*a in such an environment is raised to e or i:

xari	'old'	ET80 qäri, SY qarə ~ qar; Tksh. kari 'old woman';
		Tkm. garri; cf. Uy. qeri
xatun ki∫i	'woman'	Tksh. kadin, Az. gadin, Tkm. ha:tin; Öz. xatin 'wife';
		cf. Uy. xotun
daγ <del>i</del>	'still'	Qïr. dayə; SY dahyə; Tksh., Az. daha; Tat. tayi 'again';
		cf. Uy. texi; cf. WMo. dakin 'again'
jaxin	'close,	Kāš. ET76 < jaqin>; Tksh. jakin; Az. jaxin; Tkm. jaki:n;
	nearby'	Uy. jeqin
ja∫ŧl	'green'	Tkm. jafil, cf. Uy., Tksh. jefil
ağir	'heavy'	Tkm., Tksh. ayir (and Qaz. awir), cf. Uy. eyir

### **5.2.2.** Lexical elements

Lexical features of Salar tend to group with the modern Qipchaq and Oghuz languages rather than with Southeastern Turkic. These include the formation of denominal compound verbs with *et*- 'do' rather than *qil*-, 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 qil- 'to do'. There is a significant isogloss between the languages which tend to employ et-, those that use qil-, and those that use

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

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

```
N + qil S. Siberian Tuva, Qaragas, Yakut N + et Salar, Tksh., Az., Tkm., Tatar, Qaz. e.g. Sa. if et 'take care of matters' N + qil Sarigh Yoghur, Uyghur<sup>2</sup>, Özbek, e.g. Uy. if qil 'take care of matters', but Uy. af et '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.

qil- 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  $t\phi$ : to repent' and nazixat qil- 'to teach'. If indeed these written sources reflect spoken Salar of the time, the presence of qil-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 Qipchaq, 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:

```
kifi 'person' Tkm. kifi, but Tkm. dialects gifi; C.Tv. gifi; SY kəsi;

Bashqurt, Tatar kifi; Uy. adam

uγu 'owl' Qaz. yki, Qïr. yky, Bashqurt ökö; Tksh. puhu 'eagle
owl', bajkuf 'owl'; Tkm. ba:jjuf

kijix kix 'gazelle' Qaz. kijik, Tkm. kejik; C.Tatar kijik; Uy. ʤer en; cf.
Tksh. gejik 'deer'

fija- 'spread out' Qaz. ʤaj-; Uy. jaj-; C.Tv. ʤord v;; cf. Kāš. <jad->;
SY jaz-
```

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

<sup>&</sup>lt;sup>22</sup> et- is much less frequent in for example Uyghur, but still occurs.

likely borrowed from a \*j (> d5) > f-initial language (cf. Tatar firän-, Tkm. fi $\gamma$ ren- '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 (becin-e 'to Beijing', bel-e 'to the waist', bagrax-a 'to the clothes'), -nA after the third person possessive suffix -(s)I (ama-si-na 'to his / her mother'), while  $-ge/-\gamma a/-qa/-\gamma e$  occurs after vowel-final and homorganic consonant-final stems (bala- $\gamma a$  'to the child', gajiq-qa 'to the boat').

Modern Turkmen<sup>23</sup> has -A (-a / -e /  $-\varepsilon$ ) after both consonant-final and vowel-final stems: baf-a 'to the head',  $g\phi z-e$  '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 ( $-\gamma a$  /  $-g\ddot{a}$  / -ka /  $-k\ddot{a}$ ): Uyghur ati- $\gamma a$ , berdi- $g\varepsilon$ . 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-

<sup>&</sup>lt;sup>23</sup> 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 Qipchaq 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. etfin-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 /e/ (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 Qipchaq source for -A is the most likely, as Salar has certain other Qipchaq 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 > - $\eta$ A (baf-i- $\eta$ a 'to the head'), and -A (äbi $\eta$ -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

baf 'head, beginning', baf-i 'its head, its beginning', baf-i-n-da 'on its head, at the beginning'  $s\varphi z$  'word(s)',  $s\varphi z/+/lAr/+/-(s)I/ \rightarrow s\varphi zl\varphi r-\varphi$  'its words',  $s\varphi z/+/lAr/+/-(s)I/ + /Dan/ s\varphi zl\varphi r-\varphi$ -nd\(\varphi\) 'from its words'

#### Salar

daf-i 'outside', daf-i-n-da 'on the outside' begrax 'clothes', begraγ-i-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

da∫	'stone'	Az. daf, Tkm. da:f, but Tksh. taf, Gag. taf
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
dan i ʃ-	'to get acquainted, know'	Tksh., Az., Tkm. tanif- (but cf. Tksh. danif- '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  $sufse \sim suhse$  'broom', and only Turkmen has the form sybse, while other Turkic languages have cognate but dissimilar forms: Kāš. <sypyrgy>; Tksh. sypyrge, Az.  $sypyrg\ddot{a}$ ; cf. C.Tv. firbif, SY  $for\gamma a$ .

#### 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:ri 'side' and sari '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 harmony, e.g.  $g\phi\delta ym$  'my eye', otlor 'grasses', dyjölördö 'on their camels' whereas Salar does not:  $g\phi zim$  '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 mas γa ba:rmi] 'Is anyone else there except you?'
Salar [senden bas qa 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  $m\ddot{a}n$  'I' and  $s\ddot{a}n$  'you-sg.' In colloquial modern Turkmen, the plural is added to 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 Sarigh Yoghur, as  $mister \sim mis$  '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  $biz \sim bizler$ , 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 -°mlz, -°niz

Most Turkic languages have first and second person plural possessive suffixes; Turkmen has /-(I)mIz/ e.g.  $g\phi \delta$ -ymy $\delta$  'our eye',  $g\phi \delta$ -y $\eta$ y $\delta$ 'your (pl.) eye'. Premodern Salar documents also indicate that Salar also once distinguished singular and plural possessive suffixes: sg. -(I)m,  $-\eta$ , -(s)i, plural -(I)miz,  $-(I)\eta iz$ ,  $-(s)i \sim -lAri$  (Hán 1989: 177). But modern Salar does not mark the possessed noun at all: piserniyi g\phiz 'our eye', miniyi g\phiz, 'my eye', selerniyi g\phiz 'your (pl.) eye'. Instead, possession is marked by the obligatory personal pronouns in the genitive: minini, senini, anini, etc. Only a decade ago Lín (1985) indicates that while plural and singular possessives were not distinguished, they were at least marked with -m,  $-\eta$ , -(s)i (see also Lín & Hán 1986<sup>2</sup>: 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 Sarigh Yoghur all have ol 'she, he, it' as personal pronoun, but also  $ol \sim o$  '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	
	(miniyi)	-(1)m	(piserniγi)	-(I)miz
	(seniyi)	-(i)ŋ	(selerniyi)	-(i)ŋiz
	(aniγi)	-(s)i	(ularniyi)	$-(s)i \sim -lAri$
Stage II: Sg/pl m	nerger (Premo	odern Sala	r)	
	miniγi	-(I)m	piserniγi	-(I)m
	seniyi	-(ɨ)ŋ	selerniyi	-(i)ŋ
	ani yi	-(s)i	ularniγi	-(s)i
Stage III: Loss o	f plural mar	king (198	5)	
	miniγi	-(I)m	piserniγi	-
	seniyi	-(i)ŋ	selerniyi	-
	ani yi	-(s)i	ularniγi	-
Stage IV: Loss o	f all possessi	ve suffixes	s (1991)	
	miniγi		piserniγi	-
	seniyi	-	selerniyi	-
	ani yi	-	ularniγi	-

Deictic pronouns: Both Turkmen and Salar have reflexes of \*bu 'this' and \*ol 'that' (Turkmen and Salar bu; Turkmen  $ol \sim o$ , 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 muniyi 'this-gen.', munda 'here ('this-dat.') muno 'this-dat.'. Differences between Turkmen and Salar deictic pronouns can be attributed to secondary developments: Turkmen also has fu 'that here,

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).</p>

that already referred to',  $fol \sim fo$  'that' (< presentative uf + ol), and xol 'that, that there'; Salar only has the distant deictic  $diu\gamma u$  'that over there'.

### 6.2.5. Accusative case

The accusative case in Salar, unlike in Turkmen and Old Turkic, is always -nI (-ni/ni). Turkmen has accusative -nI after vowel-final stems ( $dunj\ddot{a}:-ni$  'world-ACC'), and -I after consonant-final stems (at-i 'horse-ACC'). But Salar and Southeastern Turkic have only -nI irrespective of the stem-final segment (Salar, Uyghur dunja:-ni, at-ni). 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></gölik>							
OT lexeme	-	_	+	+	+	÷.	-
<biffi:n></biffi:n>							
Dative	_	_	+	+	$(-(\eta)-GA)$	+	(-GA)
-(n)- $GA$							

<sup>\*</sup> $g\phi lyk$  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	+	1-	-	+		-
(var- 'go')						
$\emptyset > v / ini$	+	a-b	?		-	-
(vur- 'hit')						
Oghuz lexemes	+	+	?	+	-	-
Adjectival	+	+	+	+		-
*-IK > -I						
Imperative	+	+	?	+	-	-
conjr. DE						

Table 9. Turkmen-type features

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

<sup>\*</sup> sizler is also found in some Uyghur dialects.

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

Feature	Turkme	Premod.	Salar	Qazaq	Uyghur
	n	Salar			
*a > a in		?	-	_	+
initial syllables					
Rounding	+	?	_	+	-
harmony					
Nasal	+	?	_	+	-
assimilation					
Locative	-	? —	+	+	-
-ndA/V_					
Ablative	-	? –	+	+	-
-ndAn/V_					
III p. poss.	+	+	+	+	_
-n- $(s)I$					
Proximate	типиŋ	muniki	muniγi	mun <del>i</del> ŋ ~ buniŋ	buniŋ
deictic + gen.					
Proximate	munda	munda	munda	munda ~ bunda	buninda
deictic + loc.					
Proximate	munno	тиŋа	munə	buyan	bun i ŋ ʁa
deictic + dat.					

Table 11. Uyghur-type features

Feature	Turkmen	Premod. Salar	Salar	Qazaq	Uyghur
Vowel devoicing	-	?	+	82	+
III p.sg. 's/he/it'	ol ~ o	*ol	u	ol	и
= abst. deictic PN 'that'					
Accusative -nI	-nI / V_	-nI	-nI	-n(I)/-tI	-nI
	-I / C _			/-d <b>I</b>	

Table 12. Pan-Turkic features

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

Table 13. Non-Turkic features

Feature	Turkmen	Premod. Salar	Salar	Qazaq	Uyghur
Middle deictic: 'that'	$fol \sim fo$	?	_	sol	∫u
Distant deictic 'that	xol	?	(diuγu) *	ana	awu
there'					

<sup>\*</sup>Mongolic loan.

### References

- Axmetova, C. G. et al. 1974. English-Kazakh dictionary / Aγïlšïn-qazaq sözdigi. Almatï: Mektep.
- Azizbekov, X. A. (ed.) 1985. Azerbayjanja-rusja lüγät. Baku: Dövlät Näšriyyatï.
- Baskakov, N. A. 1960. *Tjurkskie jazyki*. Moskva. [Reprinted as *Türkiy tillar*, translated by Pärhat Jilan. Beijing. 1986.]
- Baskakov, N. A. 1969<sup>2</sup>. Vvedenie v izučenie tjurkskix jazykov. Moskva: Vysšaja Škola.
- Baskakov, N. A. & Xamzaeva, M. J. & Čaryjarov, B. (eds.) 1970. Grammatika turkmenskogo jazyka 1: Fonetika i morfologija. Ašxabad: Ylym.
- Benzing, J. 1959. Classification of the Turkic languages I. In: Deny, J. & Grønbech, K. & Scheel, H. & Togan, Z. V. (eds.) *Philologiae turcicae fundamenta* 1. Aquis Mattiacis: Steiner. 1-5.

- Brendemoen, B. 1997. Inferential categories in Turkish Black Sea dialects. Paper presented at the conference *Types of evidentiality in Turkic*, *Iranian and neighbouring languages*. Istanbul.
- Chén, Zōngzhèn & Léi, Xuǎnchūn 1985. Xībù yùgùyǔ jiǎnzhì. Běijīng: Mínzú.
- Dankoff, Robert & Kelly, James (eds.) 1982-1985. Maḥmūd al-Kāšγarī. Compendium of the Turkic dialects (Dīwān Luγāt at-Turk) I-III. (Sources of Oriental Languages and Literatures 7. Turkish sources 7.) Cambridge, Mass.: Harvard University Printing Office.
- Drimba, V. 1968. Sur la classification de la langue salare. *Ural-Altaische Jahrbücher* 40/3-4, 200-213.
- Dwyer, A. 1995a. Dominant-language influence on serial verb constructions in Salar. Paper presented at the 1995 Linguistics Society of America annual meeting, New Orleans.
- Dwyer, A. 1995b. When orthographies are *verboten*: Endangered-language policy in Northwestern China. Paper presented at the *Symposium on Language Loss and Public Policy*, Albuquerque, N. M.
- Dwyer, A. M. 1996. *Salar phonology*. [Ph.D. dissertation, University of Washington.]
- Dwyer, A. M., forthcoming 1998. Direct and indirect experience in Salar. In: Johanson, L. & Utas, B. (eds.) *Evidentials: Turkic, Iranian and neighbouring languages*. Berlin: Mouton de Gruyter.
- von Gabain, A. 1963. Charakteristik der Türksprachen. In: Spuler, B. (ed.) *Handbuch der Orientalistik 5/1: Turkologie*. Leiden, Köln: Brill. 4-26.
- Gěng, Shímín & Clark, L. 1992. Sarig Yugur materials. Acta Orientalia Academiae Scientiarum Hungaricae 46/2-3, 189-224.
- Gladney, D. C. 1991. Muslim Chinese: Ethnic nationalism in the People's Republic. Cambridge: Harvard University, Council on East Asia
- Golden, P. B. 1992. An introduction to the history of the Turkic peoples. Wiesbaden: Harrassowitz.
- Grenard, F. 1898. Le Turkestan et le Tibet. In: Dutreuil de Rhins, J.-L. *Mission scientifique dans la Haute Asie*, 1890-1895. Paris.
- Hán, Jiànyè (Yibula Kerimu). 1989. Tăn lìshĭshàng de Sālāwén— Tūérkèwén. Yǔyán yú fānyì 3, 1-3.
- Hahn, R. F. 1988. Notes on the origin and development of the Salar language. *Acta Orientalia Academiae Scientiarum Hungaricae* 42/2, 235-275.

- Hanser, O. 1977. *Turkmen manual*. Wien: Verband der Wissenschaftlichen Gesellschaften Österreichs.
- Kakuk, S. 1962. Sur la phonétique de la langue salare. *Acta Orientalia Academiae Scientiarum Hungaricae* 15/1-3, 161-172.
- Korš, F. 1910. Klassifikacija tureckix plemen po jazykam. *Etnogra- fičeskoe obozrenie* 22/84-85, 114-127.
- Léi, Xuănchūn 1994. Xībù Yùgù-Hán cídiăn. Chéngdū: Sìchuān Mínzú
- Lín, Liányún 1985. Sālāyŭ jiǎnzhì. Běijīng: Mínzú.
- Lín, Liányún 1992. Sālā-Hàn Hàn-Sālā cíhuì. Chéngdū: Sìchuān Mínzú
- Lín, Liányún & Hán, Jiànyè 1986<sup>2</sup> [1962]. Sālāyǔ gaìkuàng. *Zhōngguó* yǔwén 120, 517-528. [Reprinted in Qīnghǎi shǎoshù mínzú yǔwén yánjiū wénjí (Qīnghǎi mínzú xuéyuàn mínzú yánjiūsuŏ, eds. Xīníng: Qīnghǎi mínzú xuéyuàn, 1986). 211-244.]
- Malov, S. E. 1912. Otčet o putešestvii k ujguram i salaram. *Izvestija russkogo komiteta dlja izučenija Srednej i Vostočnoj Azii*, II, 11. St. Petersburg. 94-99.
- Malov, S. E. 1957. Jazyk želtyx ujgurov. Slovar' i grammatika. Alma-Ata: Nauka.
- Menges, K. H. 1959. Classification of the Turkic languages II. In: Deny, J. & Grønbech, K. & Scheel, H. & Togan, Z. V. (eds.) *Philologiae turcicae fundamenta* 1. Aquis Mattiacis: Steiner. 5-8.
- Menges, K. H. 1995<sup>2</sup>. *The Turkic languages and peoples*. Wiesbaden: Harrassowitz.
- Mǐ, Yìzhī 1981. Sālāzú de láiyuán hé qiányí shěnshì. Qīnghǎi mínzú xuéyuàn xuébào 3, 59-66.
- Mǐ, Yìzhī 1990. Sālāzú zhèngzhì shèhuì shǐ. Hong Kong: Huánghé wénhuà.
- Monguš, D. A. 1980. Orus-tiva slovar' / Russko-tuvinskij slovar'. Moskva: Russkij Jazyk.
- Nadeljaev, V. M. & Nasilov, D. M. & Tenišev, E. R. & Ščerbak, A. M. (eds.) 1968. *Drevnetjurkskij slovar*'. Leningrad: Nauka.
- Nurbek [Núérbiékè] (ed.) 1989. Qazaqša-xanzuša sözdik / Hă-Hàn cídiăn. Beijing: Nationalities Press.
- Nurbek [Núérbiékè] et al. (eds.) 1990. Zhōngguó Tūjué yŭzú yŭyán cíhuì jí. Beijing: Nationalities Publishing.
- Poppe, N. 1953. Remarks on the Salar language. *Harvard Journal of Asiatic Studies* 16/3-4, 438-477.

Poppe, N. 1965. Introduction to Altaic linguistics. Wiesbaden: Harrassowitz.

- Pritsak, O. 1959. Das Neuuigurische. In: Deny, J. & Grønbech, K. & Scheel, H. & Togan, Z. V. (eds.) *Philologiae turcicae fundamenta* 1. Aquis Mattiacis: Steiner. 525-563.
- Qīnghǎi mínzú xuéyuàn mínzú yánjiūsuǒ (eds.) 1981. Sālāzú shǐliào jìlù. Sālāzú lìshǐ zīliào huìjí, vol. 3. Xīníng: Qīnghǎi mínzú xuéyuàn mínzú yánjiūsuǒ.
- Radloff, W. 1893-1911. Versuch eines Wörterbuches der Türk-Dialecte. 1-4. St. Petersburg.
- Ramstedt, G. J. 1957 [1952]. Einführung in die altaische Sprachwissenschaft. Helsinki.
- Räsänen, M. 1969. Versuch eines etymologischen Wörterbuchs der Türksprachen. Helsinki: Suomalais-Ugrilainen Seura.
- Redhouse, Sir J. 1974 [1890]. *Redhouse yeni Türkçe-Ingilizce sözlük*. İstanbul: Redhouse Press.
- Saguchi, Tôru 1986. Shinkyô minzoku reikishi kenkyû. Tôkyô: Yoshi-kawa.
- Samojlovič. A. 1922. Nekotorye dopolnenija k klassifikacii tureckix jazykov. Petrograd.
- Schönig, C. 1998. A new attempt to classify the Turkic languages 3. *Turkic Languages* 2, 131-151.
- Schwarz, H. 1986. The minorities of Northern China: A survey. Bellingham, WA: Western Washington.
- Sun, J. T.-S. 1986. Aspects of the phonology of Amdo Tibetan: Ndzorge Sæme Xera Dialect. *Monumenta Serindica* 16. Tôkyô: Institute for the Study of Languages and Cultures of Asia and Africa, Tôkyô University of Foreign Studies.
- Tekin, T. 1968. A grammar of Orkhon Turkic. Uralic and Altaic Series 69. Bloomington: Indiana University Publications.
- Tekin, T. 1989. Türk dil ve diyalektlerinin yeni bir tasnifi. *Erdem 5/23*: 141-168.
- Tekin, T. et al. 1995. *Türkmence-Türkçe sözlük*. (Türk Dilleri Araştırmaları Dizisi 18.) Ankara: Simurg.
- Tenišev, Ė. R. 1960. Iz nabljudenij nad salarskim jazykom (o vlijanii kitajskogo jazyka na salarskij). *Voprosy Jazykoznanija* 9/4, 97-102.
- Tenišev, E. R. 1963. *Salarskij jazyk*. Moskva: Izdatel'stvo Vostočnoj Literatury.
- Tenišev, E. R. 1964. Salarskie teksty. Moskva: Nauka.

- Tenišev, Ė. R. 1968. *Tuvinsko-russkij slovar'*. Moskva: Sovetskaja Ėnciklopedija.
- Tenišev, E. R. 1976a. Stroj salarskogo jazyka. Moskva: Nauka.
- Tenišev, Ė. R. 1976b. Otryvok iz *Istorii Salarov*. *Ural-Altaische Jahr-bücher* 48, 237-248.
- Tenišev, Ė. R. (ed.) 1984. Sravnitel' no-istoričeskaja grammatika tjurkskix jazykov: Fonetika. Moskva: Nauka.
- Thomsen, K. 1959. Die Sprache der Gelben Uiguren und das Salarische. In: Deny, J. & Grønbech, K. & Scheel, H. & Togan, Z. V. (eds.) *Philologiae turcicae fundamenta* 1. Aquis Mattiacis: Steiner. 564-568.
- Xīnjiāng Academy of Social Sciences (ed.) 1984. *Türkiy tillar diwani* [Maḥmūd al-Kāšgharī's Divan]. Ürümči: Xīnjiāng Hälq / Rénmín.
- Xīnjiāng dàxué zhōngyǔwén xì (ed.) 1982. *Uyyurčä-xänzučä luyät / Wéi-Hàn cídiǎn*. Ürümči: Xīnjiāng Hälq / Rénmín.