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# The position of the Lopnor dialect

Hans Nugteren

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The so-called Lopnor dialect is arguably the most aberrant of the main dialects of Modern Uyghur. Malov was struck by its peculiar developments, leading him to devote a separate book to Lopnor, rather than including it in his book on Uyghur dialects. At first sight, Lopnor distinguishes itself from its relatives mainly in the field of phonetics. Fourfold vowel harmony in the low vowels and numerous consonant assimilations give it a distinctly non-Uyghur appearance. Although the non-Uyghur features of Lopnor have been attributed to “Old Kirghiz” (a variety of Old Turkic) ancestry, several of them are in fact comparable to modern Kirghiz. This article investigates whether it is warranted to assume the presence of a Kirghiz-like layer or component in Lopnor and discusses similarities and differences between Lopnor, Standard Uyghur and Kirghiz, as well as the characteristics which cannot readily be connected to other Turkic languages. The focus is on systematic and incidental phonetic developments. The paper concludes with a brief selection of morphological and lexical features.

Keywords: Lopnor dialect, Uyghur, Turkic languages, classification

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## 1. Introduction

The Lopnor dialect<sup>1</sup> is the Turkic idiom traditionally spoken by the Loptuqs,<sup>2</sup> pastoralists and fishermen of Southeast Xinjiang.<sup>3</sup> Lopnor may have had more than 25,000 speakers during the last century, but this figure has been declining for several decades.

- 1 This article is an expanded version of a paper I submitted after my talk at the 2006 *International Turkish Linguistics Conference* in Uppsala.
- 2 This name derives from *\*lop-luq*, with *-l- > -t-* as discussed below. The name Lopnor will be used here rather than Lop in order to avoid confusion with Lop in Khotan prefecture. *Lop Nur* (Mongolian for ‘Lake Lop’) used to be a salt lake, and is today an ecological disaster site. It was famously mentioned by Marco Polo. The etymology of the name *Lop* (or *Nop*) is unclear. For an overview of proposals see Esmael Abdurehim (2014: 25).
- 3 Osmanov (1983) lists the following main locations where Lopnor was spoken: Mirän, Dönqotan, Goday, Tuñčekä, Yaman Xuwa, Mirsali, Šutañ, Qaraqum, Aqsupu, Barayčekä, Čoñköl, Čara, Oybanköl, Yenjsu, Aryan, Tikänlik, Šiniya, and Küzläk. For an extensive survey of historical, geographical and ethnographical information I refer to Esmael Abdurehim (2014), who also takes into account hard-to-access Chinese publications.

Although the Lopnor vernacular was recognised as a separate entity before the concept of a standardised Modern Uyghur language took shape, today it is classified as one of the three main dialects of Modern Uyghur. The two others are the Khotan dialect located in Southwest Xinjiang, and the so-called Central dialect that ranges over northern and western Xinjiang, encompassing the sub-dialects on which the Modern Uyghur standard language was based. There is considerable variation within the Central dialect, but even Lopnor and Khotan are not homogeneous.

There are considerable phonetic and lexical differences between the several recorded Lopnor varieties. Malov's data are from Mirän and Ča(r)qiliq. Fu et al. (2000) distinguish two subdialects, Yüli (尉犁) and Mirän-Čaqiliq (米兰-若羌). Many of the documented forms are not specified for locality.

Two examples of phonetic differences that may impede intelligibility are the development of *\*r* (represented by *r*, *y*, *Ø* or vowel lengthening), e.g. Döñqotan *qarɣa*, Mirän *qarɣa*, Čara *qarɣa* 'crow' (cf. Gao 1994: 62), and the development of *\*p* (represented by *p* or *w*): *süwür-*, *süwüü-*, *süpüy-* 'to sweep' (Fu et al. 2000: 3116).

Lopnor is increasingly influenced by standard Uyghur both because of Uyghur language media and schools and the displacement and dispersion of its speakers.

The Lopnor dialect (henceforth simply "Lopnor") has several remarkable features that clearly set it apart from the rest of Uyghur (henceforth "Uyghur"). At first sight, this mainly concerns a more elaborate vowel harmony system than that of Uyghur, vowel contractions, and numerous consonant assimilations, both within stems and on morpheme boundaries.

Since at first sight some of these features look like Kirghiz rather than Uyghur, it makes sense to investigate whether they are indicative of an actual Kipchak connection or stratum in Lopnor. Malov<sup>4</sup> was the first to suggest that deviating features of Lopnor are due to a connection with so-called "Old Kirghiz". However, because this label usually refers to a corpus of Runic inscriptions, which is defined by historical and geographical criteria rather than by a set of linguistic features, it would be difficult to investigate such a connection.<sup>5</sup> At the same time, Lopnor undisputedly shares Uyghur or Chaghatay (Southeastern Turkic or "Karluk") features.

In this paper, we will present a number of phonetic features that may be helpful in finding out more about the origins of Lopnor and more accurately locating its position in the Turkic family tree, especially in its relationship to modern Uyghur and modern Kirghiz. Is Lopnor a sister language to Uyghur? And if not, is it an independent Chaghatay language with Kipchak elements or an "Uyghurised" Kipchak lan-

4 See Malov's (1956) introduction. According to Wei (1989: 239) Lopnor "preserves some of the characteristics of old Kirgiz". No linguistic features are discussed.

5 Non-linguistic arguments supporting such a connection will not be discussed here. Osmanov (1983) mentions that a small subgroup of western Loptuqs called themselves Kirghiz (*Qiryiz*). It has to be kept in mind, however, that the name Kirghiz occurs as a tribal name elsewhere in Turcia, including among the Manchurian Khakas ('Fuyu Kirghiz') and Western Yugur (Yellow Uyghur).

guage? Were the Kirghiz-like features of Lopnor really adopted from Kirghiz, or are their similarities due to parallel but independent developments? Non-Turkic components of Lopnor will be mostly ignored here, although they contribute to its diminished intelligibility.

The literature on Lopnor is characterised by an abundance of variant forms. This is not unexpected, as the published materials span several decades and were recorded in different locations. Moreover, the language is changing rapidly, as is often the case with non-written languages under pressure. The data used in this paper were in large part taken from Malov's monograph, as his materials retain the unpolished quality of field notes without much standardisation and interpretation. (For example, Malov did not decide which of a number of variants was the "original" one or the "best" one.) Although he only published texts and a lexicon, and did not visit all the localities, Malov provides a broad picture of the language. His is the oldest extensive collection of data and although the book is teeming with pronunciations and grammatical forms taken from Uyghur, it is likely to preserve more of the character of a less Uyghurised Lopnor. Further materials were taken from the publications of Mirsultan Osmanov (Osmanop), the most prolific author on Lopnor, and from the dictionary edited by Fu Maoji, complemented by lexemes from Гappariwa, Гopuri, and Teniřev. Most publications approach Lopnor in the manner of a so-called *idioticon*, whereby deviations from the standard are described, rather than the language as a whole.

The materials presented by Esmael Abdurehim (2014), the most recent sizeable publication on Lopnor, constitute a type of "almost-Uyghur", which may be representative of a language in its final throes. As the present survey focuses on "linguistic archaeology" and aims to find the oldest retrievable layers of Lopnor, the word shapes documented by Abdurehim have not been considered here.

In these pages, the locality and author of each discussed item will not be indicated. The notations were (re)transcribed and, especially in the case of Fu et al.'s narrow transcription, simplified for the sake of comparison.

## 2. Doublets

In the published Lopnor materials, many etyma are represented by two or more forms that differ beyond the type of phonetic variation found within any language. While some of these internal variants are difficult to explain, others provide us with insights about the development of Lopnor.

As in the examples in the following list, we can often classify the recorded Lopnor forms into at least two recognisable groups, represented here by a selection of the extant variants. Often we find that one group is close to Uyghur, while the other looks quite different.

In itself this does not prove much, as the reason can be different in each case, and it is not always obvious which of the two is the original Lopnor form. In some cases the left column form may be due to intra-Turkic copying (perhaps from

Kirghiz or another Kipchak language), and the right column form native Lopnor, whereas in others the left one may be native Lopnor, and the right hand one a form adopted from or influenced by standard Uyghur. However, even in most cases where the right hand form is typically Uyghur (such as *yeñi*, *tonu-*) we have no evidence to establish whether the non-Uyghur form is Kirghiz, or native Lopnor, or just an older stage of Uyghur.

Lopnor (less Uyghur-like)	Lopnor (more Uyghur-like)	Standard Uyghur	
<i>ene</i>	<i>ana</i>	<i>ana</i>	mother
<i>ol</i>	<i>u</i>	<i>u</i>	he/she
<i>ani</i>	<i>onu</i>	<i>uni</i>	her/him
<i>ma</i>	<i>mu</i>	<i>mu</i>	also
<i>yañi ~ yañi</i>	<i>yeñi</i>	<i>yeñi</i>	new
<i>tani-</i>	<i>tonu-, tunu-</i>	<i>tonu-</i>	to know
<i>taqayu ~ taqu</i> ~ <i>taqo</i>	<i>toxo</i>	<i>toxu</i>	chicken
<i>buzuu</i>	<i>muzay</i>	<i>mozay</i>	calf
<i>büliü</i>	<i>biley</i>	<i>biläy</i>	whetstone
<i>söök</i>	<i>söññök</i>	<i>söñäk</i>	bone
<i>tiy-</i>	<i>teg-</i>	<i>täg-</i>	to touch
<i>eyiz ~ eez</i>	<i>egiz</i>	<i>igiz</i>	high
<i>oono- ~ ono-</i>	<i>oyna- ~ oyno-</i>	<i>oyna-</i>	to play
<i>moyun</i>	<i>boyun</i>	<i>boyun</i>	neck
<i>čimin</i>	<i>čiwın</i>	<i>čiwın</i>	mosquito; fly
<i>minän</i>	<i>bilan ~ bilän</i>	<i>bilän</i>	with
<i>sač</i>	<i>čač</i>	<i>čač</i>	hair
<i>šeš-</i>	<i>yeš-</i>	<i>yäš-</i>	to untie
<i>it-</i>	<i>yüt-</i>	<i>yüt-</i>	to lose
<i>anday</i>	<i>andaq</i>	<i>andaq</i>	like that
<i>söylö-</i>	<i>sözzö- ~ sözdö-</i>	<i>sözlä-</i>	to speak
<i>umšaq</i>	<i>yumšaq</i>	<i>yumšaq</i>	soft
<i>tooroq ~ toyoq</i>	<i>toyyoq ~ toyraq</i>	<i>toyraq</i>	poplar
<i>qoštu</i>	<i>xošnu</i>	<i>xošna</i>	neighbour
<i>ayli ~ alli</i>	<i>aldı</i>	<i>aldi</i>	front
<i>dö(y)t</i>	<i>tö(y)t</i>	<i>töt</i>	four
<i>yoyyon</i>	<i>yutqan</i>	<i>yotqan</i>	blanket

The most convincing cases of non-Uyghur influence are those in which the Lopnor form is incompatible with modern Uyghur, and cannot easily be explained as an earlier stage of Uyghur or as a secondary development of the Uyghur form. The stronger cases include *buzuu*, which could hardly have developed from its Uyghur cognate *mozay*, and *anday*, a typical Kipchak form. There are many pitfalls in evalu-

ating these variants, and each set should be looked at separately. For instance, the development *tiy-* ‘to touch’ is a Kipchak-like innovation from original *\*täg-*, but *eyiz* (< *\*ediz*) ‘high’ is an older form than *egiz*, which developed its *-g-* secondarily in Uyghur. Sometimes the Uyghur-like forms have undergone typically Lopnor developments, so that they look “more Lopnor” than the actual Lopnor form. An example of this is *sözzö-* (corresponding to Uyghur *sözlä-*), whose assimilated *-zz-* lends it a non-Uyghur appearance. It is however likely that the form *söylö-* is the native Lopnor one. Likewise, *qoštu* ‘neighbour’ could be a secondary development of a pre-modern Uyghur form *xošnu* (< *\*koṣñi*).

The existence of such variants, of which the list above represents only a fraction, can be explained if Lopnor is either an Uyghur dialect with many elements from another Turkic language, or a more remotely related language that has become increasingly influenced by Uyghur.

Many phenomena observed in Lopnor can be understood in terms of diglossia, in which speakers attempt, mostly successfully, to switch between standard Uyghur and correct Lopnor depending on what is socially required in a given situation. This diglossia leads to constant triangulation, whereby familiarity with the distinguishing features of Lopnor and Uyghur leads to the acquisition of a set of intuitive sound laws, which enable speakers to create hypercorrect Lopnor forms or hypercorrect standard Uyghur forms. On the one hand the application of Lopnor sound laws to Uyghur words produces forms like the abovementioned *sözzö-*, which is merely a “Lopification” of Uyghur *sözlä-*.

On the other hand, the Uyghurisation, i.e. the “subtraction” or “cancellation” of perceived Lopnor sound laws from forms that were not actually Lopnor, leads to unexpected forms. The historically incorrect form *maḫla-* ‘to praise’ developed from *maḫta-* based on the knowledge that Lopnor often changes *l* into *t* as in *bašta-* ‘to begin’ vs. Uyghur *bašla-*. The form *maḫla-* arose in an attempt to create a correct Uyghur form, although *maḫta-* is in fact a Mongolic word and does not contain the verbalizer suffix *-la*. *Ökmä* ‘lungs’ developed from *ökpä* < *\*öpkä*, based on the knowledge that *-p-* after a voiceless plosive may correspond to *-m-* in Uyghur, although the Uyghur form is actually *öpkä*.

The Lopnor form *mašana* ‘car’ developed from *mašina* based on the knowledge that Uyghur raises *a > i* in middle syllables. The form *mašana* can be viewed as an attempt to provide *mašina* (a Russian word) with a correct Lopnor counterpart by undoing a perceived standard Uyghur development. The Lopnor form *poštu* ‘mail’ developed from *počta* (also from Russian) based on the knowledge that word-final low vowels of Uyghur often correspond to original high vowels, as in Lopnor *öčkü* ‘goat’ vs. Uyghur *öškä*, Lopnor *yetti* ‘seven’ vs. Uyghur *yättä*. Lopnor *yalin* ‘udder’ developed from Uyghur *yelin*, based on the knowledge that Uyghur *e* is often the result of palatalisation of *a* followed by *i*, as in *qelin* ‘thick’ vs. Lopnor *qalin*. However, *yelin* has never had *-a-*, although it is now perceived as phonologically back-vocalic in Uyghur. These forms would not have arisen if Lopnor had developed in isolation.

In short, both “Lopified” Uyghur words and Lopnor words that are, or could be, secondarily Uyghurised, should be kept apart in discussions about the history of Lopnor.

### 3. Features shared with Uyghur (and not with Kirghiz)

The features that Lopnor shares with Standard Uyghur are mainly old features that were preserved in both languages, but were lost elsewhere. The loss of “pronominal *n*” is a shared Chaghatay innovation also found in Uzbek.

1. Retention of *\*u/ü* after unrounded syllable
2. Tendency to merge *\*i* with *\*i*<sup>6</sup>
3. Retention of intervocalic *\*-g* (but cf. *-AgU* under 6.7)
4. Retention of final *\*-g* except in monosyllables (in Lopnor as *-g/γ* or *-k/q*)<sup>7</sup>
5. Retention of *\*y-* as such, or, before high vowels, elision (no *ǰ-*)<sup>8</sup>
6. Ablative *-DIn*, as in *öydün* ‘from the house’
7. Loss of “pronominal *n*”, as in *ičidä* ‘inside it’ (vs. *ičindä* in other Turkic languages)
8. Secondary *-g-* from earlier *-y-*.<sup>9</sup>

Lopnor	Uyghur	Kirghiz		
<i>ayu</i>	<i>oγa</i>	<i>uu</i>	<i>*agu</i>	poison
<i>ačuq</i>	<i>očuq</i>	<i>ačiq</i>	<i>*ačuk</i>	open
<i>qattiy</i>	<i>qattiq</i>	<i>qatuu</i>	<i>*ka(t)tiğ</i>	hard
<i>ölüg</i>	<i>öliük</i>	<i>ölü(ü)</i>	<i>*öliüg</i>	dead
<i>yapuγ</i>	<i>yopuq</i>	<i>ǰabuu</i>	<i>*yapig</i>	horse blanket
<i>il</i>	<i>yil</i>	<i>ǰil</i>	<i>*yil</i>	year
<i>eger</i>	<i>egär</i>	<i>eyer</i>	<i>*ädär</i>	saddle

- 6 The merger of *\*i* and *\*i* has different consequences in Lopnor than in Uyghur. Uyghur words that have no other vowels than *i*, whatever its origin, tend to take back vocalic suffixes in inflection, e.g. *piš-* ‘to cook’, *čiš* ‘tooth’, *iz* ‘track’, *tiz* ‘knee’ take back vocalic suffixes, whereas Lopnor *piš-*, *tiš*, *iz*, and *tiz* take front suffixes.
- 7 The Khotan dialect systematically preserves *g/γ* in these circumstances. The double representation of *\*g* in Lopnor raises the question whether perhaps the Lopnor forms in *-k* are all due to Uyghur influence. Alternatively, Lopnor variants such as *orγoγ* ‘sickle’ and *ördög* ‘duck’ may be the result of confusion caused by the voicing of final *-k/-q* when suffixes are attached.
- 8 Some Lopnor words display *ǰ-* < *\*y-*, e.g. *ǰirgen-* ‘to be disgusted’, *ǰañila-* ‘to renew’, *yat* ~ *ǰat* ‘strange’, *yigiymä* ~ *ǰigiymä* ‘twenty’, *yüyü-* ~ *ǰürü-* ‘to go’. These seem to be too marginal to be meaningful. Some instances of *ǰ-* seem to be due to sandhi phenomena, e.g. *aǰit ǰel* ‘speech’ < *aǰiz yel*. Standard Uyghur words with *ǰ-* are usually taken from Kipchak or Mongolic, e.g. *ǰawiya* ‘wool shorn in summer’, *ǰigdä* ‘narrow-leaved oleaster’, *ǰiyän* ‘nephew’ (replacing direct developments from CT *\*yapaku*, *\*yigdä*, *\*yegän*).
- 9 This is a Chaghatay development also found in Uzbek.

There is some doubt as to point 1, as the sources show many cases of unrounding of *u/ü* after an unrounded first syllable, such as *ašiq* ‘ankle’, *qamış* ‘reed’, *taši-* ‘to carry’, *tani-* ‘to know’, *yari-* ‘to become bright’, which may represent the native Lopnor development. For all of these words, there are recorded variants with rounded second syllable. Such forms, as well as *ačuq* ‘open’, *aγu* ‘poison’, and *qazuq* ‘stake’ may in fact represent pre-modern Uyghur forms rather than original Lopnor ones.

Point 3 is also problematic, as both Lopnor and Uyghur feature contraction of *VGV* sequences in trisyllabic stems such as *toχu* (*\*takagu*) ‘chicken’ and *mozay* (*\*buzagu*) ‘calf’. Moreover, Uyghur has several Kipchak-type developments, such as *köküyün* (*\*kö:kägün*) ‘gadfly’, *üyür* (*\*ögür*) ‘herd of horses’, *yaw* (*\*yagi*) ‘enemy’. The preservation of *-g-* in Uyghur may in fact be restricted to shorter stems.

#### 4. Uyghur features absent from Lopnor

The following Standard Uyghur developments were originally absent from Lopnor. Most of these deviations are mentioned in surveys of the distinguishing features of Lopnor, in support of the official dialect divisions of Uyghur. These are mostly pre-Uyghur forms, that is to say, the Lopnor forms failed to undergo typical Uyghur developments. This means that in these cases Lopnor tends to agree with the majority of Turkic languages, making these features of little classificatory value.

1. Lowering of word-final high vowel  $> a/\bar{a}$
2. Raising of medial syllable  $a/\bar{a} > i$
3. Umlaut of first syllable  $a > e$  before second syllable  $i$
4. Rounding of first syllable  $a$  before second syllable  $u$
5. Affrication of *\*t-* before high vowel +  $\check{c}$  or  $\check{s}$ <sup>10</sup>
6. Assimilation of *\*s-* before  $\check{c}$  or  $\check{s}$

Lopnor	Uyghur	Kirghiz		
<i>ilqi</i>	<i>yilqa</i>	<i>jilqï</i>	<i>*yilkï</i>	herd of horses
<i>yetti</i>	<i>yättä</i>	<i>jeti</i>	<i>*yä(t)ti</i>	seven
<i>balasi</i>	<i>balisi</i>	<i>balasï</i>	<i>*bala-sï</i>	her child
<i>aqadu</i>	<i>aqidu</i>	<i>aqat</i>	<i>*ak-a turur</i>	it flows
<i>balïq</i>	<i>beliq</i>	<i>balïq</i>	<i>*balïk</i>	fish
<i>taqu</i>	<i>toχu</i> (~ <i>tuxa</i> )	[ <i>tooq</i> ]	<i>*takagu</i> [ <i>*taguk</i> ]	chicken
<i>tište-</i>	<i>čišlä-</i>	<i>tište-</i>	<i>*tišlä-</i>	to bite
<i>tüš-</i>	<i>čüš-</i>	<i>tüš-</i>	<i>*tüş-</i>	to fall
<i>sac</i>	<i>čac</i>	<i>čac</i>	<i>*sac</i>	hair

10 The retention of *\*t-* in this environment is shared by the Central Uyghur Turfan and Qomul dialects.

### 5. Non-classificatory Lopnor innovations

The most striking features of Lopnor, at least from the perspective of a speaker of Standard Uyghur, are often not unique within Turkic, and are not very useful for classification purposes, although they are almost invariably mentioned in publications about Lopnor.

#### 5.1. Metathesis of consonant clusters *-pr-*, *-gl-*, *-gr-*, *-tl-*, *-dl-*

The Common Turkic consonant clusters *-pr-*, *-gl-*, *-gr-*, *-tl-*, *-dl-* tend to be inverted in Lopnor, often resulting in forms similar to those seen in South Siberian Turkic and Western Yugur (see Nugteren & Roos 2006: 114-117).

Lopnor	Uyghur	Kirghiz		
<i>teywe-</i>	<i>tewre-</i>	<i>terme-</i>	* <i>täprä-</i>	to shake
<i>yilya-</i>	<i>yaŷla-</i>	<i>iyła-</i>	* <i>igla-</i>	to cry
<i>oŷoq</i>	<i>oŷlaq</i>	<i>ulaq</i>	* <i>oglak</i>	kid goat
<i>buŷra</i>	<i>buŷra</i>	<i>buura</i>	* <i>bugra</i>	camel stallion
<i>qultuq</i>	<i>qutluq</i>	<i>quttuu</i>	* <i>kutlug</i>	lucky
<i>taltiq</i>	<i>tatliq</i>	<i>tattuu</i>	* <i>ta:tlig</i>	sweet
<i>ilda-</i>	<i>hidla-</i>	<i>jitta-</i>	* <i>(y)idla-</i>	to smell
<i>alta-</i>	<i>atla-</i>	<i>atta-</i>	* <i>a:tla-</i>	to step

In *eereš-* ‘to follow’ (from earlier \**egreš-*, cf. Uyghur *ägäš-* (< \**ärgäš-*), Uzbek *ergäš-*), the cluster developed in the opposite direction. Lopnor *älgäk* ‘sieve’ agrees with \**älgäk*, whereas Uyghur *ägläk* was metathesised. A genuine, systematically applied preference for certain orders of consonants may have existed, as it does in South Siberian languages, but it appears in that case to have been obscured by a tendency to opt for the reverse order of that in Standard Uyghur. Other non-classificatory metatheses include *aziy* ‘mouth’, *uruy* ‘Uyghur’ (\**agiz*, \**uygur*).

#### 5.2. \*-g > -q in monosyllables

This development, a natural extension of the general tendency to devoice word-final \*-g, also occurred in the Central Uyghur dialects of Qomul and Turfan.<sup>11</sup>

Lopnor	Uyghur	Kirghiz		
<i>taq</i>	<i>taŷ</i>	<i>too</i>	* <i>ta:g</i>	mountain
<i>yaq</i>	<i>yaŷ</i>	[ <i>jow</i> (dial.)]	* <i>ya:g</i>	grease
<i>čiq</i>	<i>čiy</i>	<i>čiy</i>	* <i>čig</i>	plant name

11 Further, note that in both Standard Uyghur and Western Yugur the dative of *taŷ* ‘mountain’ is *taqqa* rather than \**taŷqa*.

### 5.3. Consonant assimilations

The tendency to assimilate consonant sequences, which to some degree is found in all Turkic languages, is taken further in Lopnor. This does not only affect stems but also plays an important role in inflection. (Gao lists four consonant variants for the plural suffix *-LAR*, and seven for the acc./gen. case *-NI*.)<sup>12</sup> This often results in “monotonous” paradigms, e.g. *biz* ‘we’ > gen. and acc. *bizzi*, dat. *bizgä*, loc. *bizzä*, abl. *bizzin*, and can make stems indistinguishable; e.g. *assa* may represent *ačsa* ‘if s/he opens’, *aš-sa* ‘if it exceeds’, *at-sa* ‘if s/he throws’ or *as-sa* ‘if s/he hangs’.<sup>13</sup>

Lopnor	Uyghur	Kirghiz		
<i>yassuq</i>	<i>yastuq</i>	<i>ǰastıq (ǰazdık)</i>	* <i>yastuk</i>	pillow
<i>qizzar</i>	<i>qizlar</i>	<i>qızdar</i>	* <i>kız-lar</i>	girls
<i>ippi</i>	<i>yipni</i>	<i>ǰipti</i>	*(y) <i>ıp-ni</i>	thread (acc.)
<i>ešäkki</i>	<i>išäknij</i>	<i>ešehtin</i>	* <i>äšgäk-nij</i>	donkey (gen.)
<i>tappas</i>	<i>tapmas</i>	<i>tappas</i>	* <i>tap-mas</i>	s/he won't find

### 5.4. Loss of preconsonantal -y-

Preconsonantal *y*, both from original \**y* and from \**d*, is generally dropped, and the preceding vowel lengthened, as in *quuqa* ‘singed hair’ < \**kuyka*, *ooƷot-* ‘to wake up (tr)’ < \**odgat-*, *saara-* ‘to sing’ < \**sayra-*, *quuruq* ‘tail’ < \**kudruk*, *aari-* ‘to separate’ < \**adır-*, *oono-* ‘to play’ < \**oyna-*.

### 5.5. Sibilant assimilation and dissimilation

In words with initial *s-* followed by *č*, Lopnor often features the original unasimilated forms alongside Uyghur-like assimilated forms, e.g. *sač* ~ *säč* ~ *šäš* ~ *čač* ~ *čäč* ~ *čeč* ‘hair’, *sačqan*, *čäčkän*, *čičqan* ‘mouse’ (Uyghur *čač*, *čašqan*).

In three words containing the sequence *sVs*, the first *s* is elided in Uyghur. Lopnor has both the original form and the Uyghur-type dissimilations. Kirghiz changed the second *-s* to *-z*, as in Western Yugur. There are in fact two Turkic verbs for ‘to be thirsty’, \**us-* and \**suvsa-* > *susa-*, which seem to have been conflated in Uyghur. In the case of \**süs-*, Lopnor developed an additional disyllabic form *üssü-*, which further developed a dissimilated form *üstü-*.

Lopnor	Kirghiz	Uyghur	Yugur		
<i>sus-</i> ~ <i>us-</i>	<i>suz-</i>	<i>us-</i>	<i>suz-</i>	* <i>sus-</i>	to scoop
<i>süs-</i> ~ <i>üssü-</i>	<i>süz-</i>	<i>üs-</i>	<i>suz-</i>	* <i>süs-</i>	to butt
~ <i>üstü-</i>					
<i>ussa-</i> ~ <i>susa-</i>	<i>suusa-</i>	<i>ussa-</i>	<i>us-</i>	* <i>suvsa-</i>	to be thirsty

12 Counting all vocalic variants, this adds up to 16 and 28 allomorphs, respectively.

13 Some of these assimilations, e.g. *assa* < *at-sa*, can also be observed in spoken Uyghur.

The originally homophonous stems \**sīš* ‘skewer’ and \**sīš-* ‘to swell’ have undergone different developments. The former is recorded in Lopnor in the assimilated form *šiš* ~ *šāš* ‘sharp object’, whereas the latter is documented in the Uyghur-like form *išši-* which lost the initial consonant.<sup>14</sup> Kirghiz has *šiši-*. For more on sibilant assimilations in Turkic see Schönig (2009).

### 5.6. Geminated consonants

The native Lopnor treatment of geminated consonants within stems is unclear, as several stems are recorded in single-consonant and geminate versions, including several numerals (2, 7, 8, 9, 30). *aččiq* ‘anger’, *ottoyo* (\**otra*) ‘middle’, *qattiγ* ‘hard’ and *ittik* ‘sharp’ agree with Uyghur, but this may be due to the influence of the standard language.<sup>15</sup> Lopnor features further geminates of its own, often involving *-p-* and *-ŋ-*, such as *uppa* ‘face powder’, *ippar* ‘musk’, *qussuq* ‘vomit’, *aŋŋiz* ‘stubble’, *oŋŋoy* ‘easy’, *siŋŋar* ‘one of a pair’, which may not always be relevant to historical phonology.

### 5.7. *w > g/γ*

*w* may become *g* or *γ* in both Turkic and non-Turkic words, e.g. (native) *yagaš* ‘well-behaved’, (Arabic) *aγγal* ‘first’, *göziir* ‘minister’, *haga* ‘air’, (Persian) *dergüš* ‘derwish’, *mögö* ‘fruit’, (Mongolic) *sugay* ‘barren’ (Uyghur *yuwaš*, *awwal*, *wäzir*, *hawa*, *därwiš*, *mewä*, *suway*). This phenomenon is also known from Central Uyghur dialects such as Turfan and Qomul.

### 5.8. Vowel rounding

Rounding of vowels by labial consonants and/or vowels of the second syllable leads to deviations from Uyghur, as in the items below. A similar tendency in Uyghur mostly affects *a/ä* of the first syllable followed by *u/ü*, and does not occur when there is a geminate or consonant sequence between the first and second vowel.

Lopnor	Uyghur	Kirghiz		
<i>pušuy-</i>	<i>pišur-</i>	<i>bišir-</i>	* <i>bišur-</i>	to bake
<i>üčüy-</i>	[ <i>ičküz-</i> ]	<i>ičir-</i>	* <i>ičür-</i>	to give to drink
<i>čürü-</i>	<i>čiri-</i>	<i>čiri-</i>	* <i>čirü-</i>	to rot
<i>költür-</i>	<i>kältür-</i>	<i>keltir-</i>	* <i>kältür-</i>	to bring
<i>köŋrü</i>	<i>käŋri</i>	<i>keŋ(i)ri</i>	* <i>käŋrü</i>	wide
<i>sömrü-</i>	<i>sämir-</i>	<i>semir-</i>	* <i>semri-</i>	to become fat
<i>yölpü-</i>	<i>yälpü-</i>	<i>jelpi-</i>	* <i>yelpi-</i>	to fan

<sup>14</sup> *šüšüy-* ‘to swell’, the non-Uyghur form recorded by Malov, is likely an aorist or a causative form (from an earlier \**šiš-ür-*).

<sup>15</sup> Some words appear with an interesting dissimilation: *istik* (< \**issig*) ‘hot’, *uššaq tüštäk* (< *uššaq tüššäk* < \**uvšak tävšäk*) ‘tiny’, and *üstü-* (< *üssü-* < \**süs-*) ‘to butt’. This development may be due to hypercorrection as the sequence *-st-* normally becomes *-ss-*.

## 6. Kirghiz-like developments in Lopnor?

Now we arrive at some developments that are reminiscent of Kirghiz, although upon closer inspection some of the details differ.

### 6.1. Fourfold vowel harmony in low vowels

The appearance of *o* and *ö* in non-first syllables is one of the most obvious similarities between Lopnor and Kirghiz. In cases of *u* in the stem, neither Lopnor nor Kirghiz rounds the suffixes.

Lopnor	Kirghiz	Uyghur	
<i>ördöktör</i>	<i>ördöktör</i>	<i>ödäklär</i>	ducks
<i>qoyloruwiz</i>	<i>qoylorubuz</i>	<i>qoylirimiz</i>	our sheep (pl.)

### 6.2. Stronger tendency to labialise *i* in suffixes

Suffixes with original *I* alternation, exemplified here by the nomen agentis suffix *-čI*, the 3rd person possessive *-(s)I*, and the converter *-kI*, are rounded after a rounded syllable in Lopnor and Kirghiz, but remain unrounded in Uyghur. Suffixes with the high vowel *X*, such as the 1st person possessive *-(X)m* and the passive *-(X)l*, generate rounded and unrounded suffix variants in Uyghur as well.<sup>16</sup>

Lopnor	Kirghiz	Uyghur	
<i>qoyčü</i>	<i>qoyčü</i>	<i>qoyči</i>	shepherd
<i>qolu</i>	<i>qolu</i>	<i>qoli</i>	her hand
<i>taqusu</i>	---	<i>toχusi</i>	his chicken
<i>öydökü</i>	<i>üydögü</i>	<i>öydiki</i>	the one in the house

### 6.3. Delateralisation of syllable-initial *-l-*

This development is not only shared by Lopnor and Kirghiz, but can also be found in Kazak, Bashkir, Northeastern Turkic and Western Yugur, indicating that it occurred a couple of times independently.

Lopnor	Kirghiz	Uyghur	
<i>bašta-</i>	<i>bašta-</i>	<i>bašla-</i>	to begin
<i>uqta-</i>	<i>uqta-</i>	<i>uχla-</i>	to sleep

This development does not necessarily result in similarities with Kirghiz, as can be seen in the following words:

<sup>16</sup> The absence of rounding in Standard Uyghur is partly an artefact of the written language. The genitive and ablative case endings are always written with <*i*>, although in spoken Uyghur they can be rounded. However, the accusative ending and the third person possessive are usually really unrounded.

Lopnor	Kirghiz	Uyghur	
<i>ässä-</i>	<i>este-</i>	<i>äslä-</i>	to remember
<i>üllük</i>	<i>ündüü</i>	<i>inlük</i>	with sound
<i>aŋla-</i>	<i>aŋda-</i>	<i>aŋla-</i>	to hear

The details of how the Lopnor assimilations came about are unknown. Lopnor *äs-sä-* may have developed from a Kirghiz-like form *ästä-* (like *yassuq* above), or directly from *äslä-*, and in either case it could be borrowed from Uyghur. In spite of this uncertainty, these few examples show that several consonant sequences behave differently in Lopnor than in Kirghiz. After nasals, *-l-* does not appear to assimilate in Lopnor, and the sequence *-nl-* normally undergoes regressive assimilation.

#### 6.4. Denasalisation of syllable-initial *-n-* and *-m-*

Lopnor	Kirghiz	Uyghur	
<i>öttü</i>	---	<i>ötinä</i>	borrowing
<i>hečteme</i>	<i>ičteme</i>	<i>hečnemä</i>	nothing
<i>teppek ~ tepmek</i>	<i>teppek</i>	<i>täpmäk</i>	to kick
<i>toqpaq ~ toqmaq</i>	<i>toqmoq</i>	<i>toqmaq</i>	bludgeon

#### 6.5. Initial or medial *b/p > m* due to word-final nasal

The development of initial *\*b > m* is common throughout Turkic in short words such as *män* 'I'. Remote assimilation as in *moyun* is not restricted to Kirghiz either, but is found in Northeastern Turkic and Western Yugur as well. Apart from the examples below, *m-* may appear in words without any nasals, such as *biläk ~ miläk* 'wrist', *boy ~ moy* 'stature', *bulut ~ mulut* 'cloud'. If these words were taken from texts, they may of course be sandhi forms.

Lopnor	Kirghiz	Uyghur		
<i>murun</i>	<i>murun</i>	<i>burun</i>	<i>*burun</i>	nose
<i>moyun</i>	<i>moyun</i>	<i>boyun</i>	<i>*boyun</i>	neck
<i>čimin</i>	<i>čimīn ~ čibīn</i>	<i>čiwīn</i>	<i>*čī:pīn</i>	fly

#### 6.6. Nasal dissimilation

Mostly in disyllabic words in which *n* co-occurs with another nasal, Lopnor shares a tendency with Kirghiz to change the *n* into *l*. This mostly affects non-Turkic lexemes, such as *maymil* 'monkey', *ambal* 'functionary', *qalun* 'law' (Uyghur *maymun*, *amban*, *qanun*).

#### 6.7. Contraction of *-AgU* in trisyllables

The words with three syllables that end in the sequence *-AgU* behave in a peculiar way in Uyghur as well. In disyllabic words, intervocalic *-g-* is preserved in Uyghur, but in this set of trisyllabic words we see that the *-g-* is lost and the end of the word

is contracted. The forms in Lopnor seem to be the result of another type of contraction. Although the contracted vowels in Lopnor are usually high, it is conceivable that they developed from a Kazak-like *-aw/-ew* or Kirghiz *-oo/-öö*.

Lopnor	Kirghiz	Uyghur		
<i>bülüü</i>	<i>bülöö</i>	<i>biläy</i>	* <i>bi:lägü</i>	whetstone
<i>buzuu</i>	<i>muzoo</i>	<i>mozay</i>	* <i>buzagu</i>	calf
<i>üçüü</i> [~ <i>üçögü</i> ]	[ <i>ičegī</i> ]	<i>üčäy</i>	* <i>ičägü/ki</i>	intestines
<i>γuru</i> ~ <i>γiro</i>	<i>qiroo</i>	<i>qiro</i>	* <i>kīragu</i>	hoar frost
<i>küyü</i>	<i>küyöö</i>	<i>küyö/küyo</i>	* <i>küdägü</i>	brother-in-law <sup>17</sup>
<i>üü-län</i>	<i>üçöö</i>	<i>üčäy-län</i>	* <i>üčägü</i>	all three <sup>18</sup>

### 6.8. Further contractions

Other contractions in Lopnor generally look like Kipchak as well, but Standard Uyghur is not consistent here and apparently also contains Kipchak forms, with semi-vowels *-w-* and *-y-* instead of expected *-g-*.

Lopnor	Kirghiz	Uyghur		
<i>kiiz</i>	<i>kiyiz</i>	<i>kigiz</i>	* <i>kidiz</i>	felt
<i>mee</i> ~ <i>megä</i>	<i>mee</i>	<i>meñä</i>	? * <i>bäñi</i>	brain
<i>müüs</i> ~ <i>müyüs</i>	<i>müyüz</i>	<i>müñgüz</i>	? * <i>büñüz</i>	horn
<i>söök</i>	<i>söök</i>	<i>söñäk</i>	* <i>söñök</i>	bone
<i>ür</i>	<i>üyür</i>	<i>üyür</i>	* <i>ögür</i>	herd
<i>köküün</i>	<i>kögööñ</i>	<i>köküyün</i>	* <i>kökägün</i>	gadfly
<i>tünüün</i>	---	<i>tünügün</i>	* <i>tünä kün</i>	yesterday
<i>suq</i>	<i>suuq</i>	<i>soyaq</i>	* <i>sogik</i>	cold <sup>19</sup>
<i>quula-</i>	<i>quu-</i> ( <i>qubala-</i> )	<i>qoyla-</i>	* <i>kovla-</i>	to chase

17 The Uyghur word is omitted by some dictionaries and marked as dialectal by others. More commonly listed is the compound *küy'oyul* 'son-in-law'.

18 Older, non-standardised sources do have Uyghur forms without the *-y-*; e.g. Jarring mentions (among other variants) *üçöwlän*; and likewise for other numerals. Malov gives a greater variety of Lopnor forms for 'the two of us/you/them' (but notably without a form resembling the present-day standard Uyghur form) *ikkälän*, *ikkelän*, *ikkölän*, *ikülän*, as well as *ikkö-zü* and *ikkülä-biz* 'the two of them/us'. Uyghur variants mentioned by Jarring (1964:143) clearly involve the postposition *bilän*. Apparently, the *-y-* in *üçäylän* is not of the same origin as that in the other examples, which clearly contain the suffix *-AGU*.

19 Turfan *sooq*. An anonymous reviewer stated that both *soq* and *soyuq* are standard Uyghur forms. Kibirov & Cunvazo have *soq*; other dictionaries that have this entry mark it as dialectal and have either *soyaq* or *soyuq* as the standard form. The Uyghur adjective shapes *soγ* ~ *soq* ~ *sooq* ~ *souq* ~ *sawuq* ~ *sowaq*, as well as the verb *sowu-* (Lopnor *suu-*) 'to become cold' (on which the dictionaries agree) are themselves indicative of Kipchak influence.

### 6.9. Loss of preconsonantal -n-

Lopnor has a tendency to elide *n* before *č*, as in *sačqaaq* ~ *sančqaaq* ~ *čančiyaq* ‘fish spear’,<sup>20</sup> *ičke* ~ *inčke* ‘thin’, *teč* ~ *tinč* ‘quiet’ (the forms with preserved -*n*- may be Uyghurisms). This development, which only occurs in syllable-final position, is shared with Kirghiz, but is also found in South Siberian Turkic and Western Yugur. In the case of *qonču* (< \**konč*) ‘bootleg’ the final vowel, perhaps originally the 3rd person possessive suffix, prevented the elision of -*n*-. Unlike in most Siberian languages, the verbs *čanč-* ~ *čanč-* ~ *čanči-* ~ *sanji-* ‘to stab’ and *yanč-* ~ *yanči-* ‘to crush’ preserve the -*n*- in Lopnor.

The rare cluster -*nt* was solved in different ways. It was simplified in *an* < \**ant* ‘oath’ and Arabic *qān* ‘sugar’, whereas Iranian *kenti* ‘town’ adds a final vowel. In Russian words the cluster is broken up, as in *ilminit* ‘element’, *sikinut* ‘second’, *simunut* ‘cement’.

### 7. Miscellaneous non-Uyghur phonetic features

The following Lopnor forms clearly do not agree with Standard Uyghur, though they may resemble forms in Uyghur dialects. They do not necessarily have (similar-looking) parallels in Kirghiz.

Lopnor	Kirghiz	Uyghur	Yugur		
<i>añila-čikānāk</i>	<i>añgira-čiqanaq</i>	<i>hanra-jāynāk</i>	<i>hanqila-čikīkinik</i>	* <i>añila-čikānāk/čikanak</i>	to bray elbow
<i>yurttaiñjal</i>	<i>uurttaiñgen</i>	<i>otlaiñgan</i>	<i>orttaiñkin</i>	* <i>avurtlaiñgan</i>	to sip, gulp camel mare <sup>21</sup>
<i>küygäk</i>	<i>kürek</i>	<i>küräk</i>	---	* <i>kürgäk</i>	spade
<i>loto</i>	---	<i>yota</i>	<i>yoda</i>	* <i>yota</i>	thigh; shank
<i>oñortqo</i>	<i>omurtqa</i>	<i>omurtqa</i>	<i>oñırqa</i>	?* <i>oñırka</i>	backbone
<i>suuru-tamyaq</i>	<i>sapir-tamaq</i>	<i>sorutamaq</i>	---	* <i>savurtamgak</i>	to winnow throat
<i>tunuq</i>	<i>tunuq</i>	<i>tiniq</i>	---	* <i>tinuk</i>	clear
<i>türküik</i>	<i>türküik</i>	<i>tüwrük</i>	---	* <i>tirgük</i>	post, pole
~ <i>töbrük</i>					
<i>toolu</i>	<i>dobul</i> ~ <i>dool</i>	<i>tula</i>	---	* <i>toli</i>	hail <sup>22</sup>
~ <i>tulu(q)</i>					
<i>uya</i>	<i>uya</i>	<i>uwa</i>	<i>oya</i> <sup>23</sup>	* <i>uya</i>	nest
<i>ürügä-</i>	<i>ürgülö-</i>	<i>(m)ügä-</i>	---	?* <i>ürüg-</i>	to nap, doze
~ <i>ürügä-</i>					
<i>yıyač</i>	<i>jıyač</i>	<i>yayač</i>	<i>yıyaš</i>	* <i>ıgač</i>	wood

20 Malov (1961) reports *sašqaaq* ‘fishing rod’ for Dolan dialect.

21 Khotan has *hiñgal*.

22 Most dictionaries that list *tula* mark it as dialectal and view *möldür* (from Mongolic) as the standard word. Malov (1961: 162) gives *tula* for Aqsu dialect. It is attested in older Uyghur sources *tolu* ~ *tolä* (Jarring 1964: 311), *toli* (Menges 1954: 127).

23 Western Yugur *oya* means ‘egg’.

<i>yulduz</i>	<i>jıldız</i>	<i>yultuz</i>	<i>yiltis</i> ~ <i>yultis</i>	* <i>yulduz</i>	star <sup>24</sup>
<i>ildiz</i>	---	<i>yiltiz</i>	<i>yiltis</i>	* <i>yıldız</i>	root
<i>içke</i>	<i>içke</i>	<i>inçike</i>	<i>şiki</i>	?* <i>yiniçke</i>	thin
<i>yoyyan</i>	<i>juur(t)qan</i>	<i>yo(r)tqan</i>	---	* <i>yogurkan</i>	blanket <sup>25</sup>

### 8. Morphological features

The following table provides a selection of features of Lopnor inflectional morphology, showing that the choice of suffix in Lopnor may be the same as in Standard Uyghur or Kirghiz, but in several cases resembles neither. The way Lopnor combines possessive and case suffixes (without pronominal *n*) resembles the Uyghur situation. The merger of accusative and genitive is a phenomenon known from Mongolic, but it can also be found in a number of Turkic languages.<sup>26</sup> There is no obvious connection with Kirghiz or with Kipchak in general. In some cases, conjugation differs from both Uyghur and Kirghiz. The Lopnor suffix shapes may be internal innovations, but in some cases, as in the preservation of the aorist suffix variant *-Ur*, Lopnor is more archaic than Uyghur and Kirghiz.

Lopnor	Uyghur	Kirghiz	
<i>-NI</i>	<i>-niŋ (-nIŋ)</i>	<i>-NIŋ</i>	genitive
<i>-NI</i>	<i>-ni</i>	<i>-NI</i>	accusative
<i>-DIŋ</i>	<i>-Din (-DIŋ)</i>	<i>-DAn</i>	ablative
<i>-(I)miz ~ -(I)wiz</i>	<i>-(I)miz</i>	<i>-(I)bls</i>	possessive 1pl
<i>-ImGA</i>	<i>-ImGA</i>	<i>-ImA</i>	poss. 1sg + dative
<i>-IŋŋA</i>	<i>-IŋGA</i>	<i>-IŋA</i>	poss. 2sg + dative
<i>-IGA</i>	<i>-iGA</i>	<i>-InA</i>	poss. 3sg + dative
<i>-(s)InI</i>	<i>-(s)ini</i>	<i>-(s)In</i>	poss. 3sg + accusative
<i>-day/-teg</i>	<i>-däk</i>	<i>-dAy/-dek</i>	like <sup>27</sup>
<i>-(A)r ~ -Ur</i>	<i>-(A)r</i>	<i>-(A)r</i>	aorist
<i>-A-di-män</i>	<i>-A-män</i>	<i>-A-mIn, -A-m</i>	present-future 1sg
<i>-A-du-lar</i>	<i>-(I)š-A-du</i>	<i>-(I)š-A-t</i>	present-future 3pl <sup>28</sup>
<i>-Ani ~ -yni (?) ~ -Ay</i>	<i>-(A)y</i>	<i>-(A)yIn</i>	imperative 1sg
<i>-Ali / -yli</i>	<i>-(A)yII</i>	<i>-All(K)/-yII(k)</i>	imperative 1pl

Some suffixes only differ in their treatment of vowel harmony. The potential suffix, which goes back to the verb *al-* ‘to take’, did not develop a front vocalic alternant in Lopnor, leading to forms such as *kiralmadim* vs. Uyghur *kirälmidim* ‘I could not enter’. Conversely, the 1st person plural of the past tense *-DUk* has front vocalic

24 Jarring has *yulduz* ~ *yılduz* (160) ‘star’ and *yildiz* ~ *yıldız* (157) ‘root’.

25 The Uyghur form with *-r-* was recorded by Katanov (see Menges). The *-t-* is secondary.

26 This merger is found in Dagur and the Mongolic languages of Gansu and Qinghai, Turfan dialect, Fergana Uyghur, Uzbek of Afghanistan, and South West Kipchak.

27 *-däy/-dey* is also reported for Khotan dialect (Gao: 143, Malov 1961: 105) and in Keriya dialect (Malov 1961: 105).

28 The plural *-LAr* is also used with other indicative verb forms, as well as with the imperative *-sUn*. In the Uyghur verb, *-LAr* can only be used on the 2nd person imperative.

alternants, whereas Uyghur only has *-Duq*, cf. Lopnor *süzzük* ‘we strained’, *kör-mödük* ‘we did not see’ vs. unharmonic Uyghur *süzduq*, *körmiduq*.<sup>29</sup>

A discrepancy in the present-future is the retention in Lopnor of the *y* of the converb before the question particle, as in *yilyaymisiz* vs. Uyghur *yıylamsiz* ‘will you cry?’ (< \**ıglayu mu siz*), *barmaymisen* vs. Uyghur *barmamsen* ‘aren’t you going?’.

*untul-* ‘to forget’, *ayrit-* ‘to hurt (intransitive!)’ have the meanings of \**unut-* and \**agir-*, although they contain the passive and causative suffixes, respectively.<sup>30</sup>

The pronouns *ol* ‘s/he/it/that’ and *bu* ‘this’ have primary case forms such as dat. *añña*, *oñño*, abl. *andin* ~ *annin*, dat. *muña*, *moñño*, loc. *munda*, abl. *mundun*, as opposed to the innovative Uyghur forms based on the genitive: *uniñya*, *uniñdin*, *buniñya*, *buniñda*, *buniñdin*.

Fu’s materials suggest a predilection for disyllabic intensifying reduplication of adjectives, e.g. *köppö-kök* ‘very blue’, *oppo-oğšoş* ‘very similar’, *sappa-sariq* ‘very yellow’ vs. Uyghur *köp-kök*, *op-oğšaş*, *sap-seriq*. The longer form, with parallels elsewhere in Turcia, may contain *ma* ‘also’. Cf. Uyghur *sapmu-saq* ‘very safe’, Western Yugur *kük pe kük* ‘very blue’, Karachay *sappa-sari* ‘very yellow’.

The weakening of colour adjectives deviates as well: *kökşül* ‘bluish’, *sarışin* ‘yellowish’, *qızışmal* ‘reddish’ vs. Uyghur *köküş*, *saıuç*, *qızıuç*, Kirghiz *kögüş*, *kökçül*, *sarıč*, *sarılt*, *sarımtal*, *qızılt*, *qızıltım*.

In derivational morphology there are numerous non-systematic differences from Uyghur, including *alwasqu* ‘demon, monster’ vs. Uyghur *alwasti*, Kirghiz *albarstı*, *artıq* vs. Uyghur *artım* ‘load’; *burma* ‘drill’ vs. Uyghur *burıya*, Kirghiz *burıy*; *imizäk* ‘nipple of feeding bottle’ vs. Uyghur *emizgä*, Kirghiz *emizdik*; *kölögüč* ~ *kölögö* ‘shade’, vs. Uyghur *kölänğä*, Kirghiz *kölökö* ~ *kölönkö*; *oynayuč* ‘toy’ vs. Uyghur *oyunčüq*;<sup>31</sup> *künes* vs. Uyghur *küngäy* ‘sunny side’, Kirghiz *künös*, *küngöy*; *pişraq* ‘cheese’ vs. Uyghur *pişraq*, Kirghiz *biştaq*; *söyünčük* ‘a gift of money’ vs. Uyghur *söyünčä*, Kirghiz *süyünčü* ~ *čüyünčü*; *süwürgüč* ‘broom’ vs. Uyghur *süpürgä*, Kirghiz *şıpıryı*; *tamjuq* ‘drop’ vs. Uyghur *tamčä*, Kirghiz *tamčı*; *yapuruy* ‘harrow’ vs. *yopurya* in other dialects (Uyghur *söräm*).

The deverbal nominal suffix *-GU* is popular, as in *açqu* ‘key’, *basqu* ‘stairs’, *salıy* ‘single-plank bridge over a canal’, *yapqu* ‘blanket’, *yaryu* ‘wound’, as is *-ma*, as in *eşme* ‘oar’, *ilma* ‘ear pendant’, *qaqma* ‘chisel (for stone)’, *baqma bala* ‘foster child’.

29 Forms like *kälduq* ‘we came’ do occur in Lopnor, but they should probably be interpreted as Uyghurisms.

30 Cf. also *susat-* ‘to be thirsty’ and *oyut-* ‘to vomit’ alongside the base forms *susa-* and *oyu-*. This is reminiscent of verbs denoting involuntary actions, such as \**asur-* ‘to sneeze’ and \**käkir-* ‘to belch’, appearing with the causative in Western Yugur and Siberian Turkic.

31 An anonymous reviewer reports that *oynıyüč* is a common Uyghur word for ‘toy’. In the dictionaries I have only found it in the meaning ‘early ripening melon’. On the other hand, the phonetic shape *oynayüč* does support Uyghur origin, as the expected native Lopnor development would be \**oonoyüč* or perhaps \**oonooč*.

Lopnor *bala yatiš(i)*, *balayatquč* and Uyghur *baliyatqu* ‘womb’ express the same idea, ‘where a child lies’, by means of the same stems, but with different suffixes (Kirghiz *jatın* ‘place to lie down; womb’).

The verbs *zoru-* and *čoŋu-* ‘to become big’ are formed with the verbalizer *-I* or *-U* vs. Uyghur *zoray-*, *čoŋay-* with the suffix *-Ay*. Lopnor *yöli-* ~ *yölü-* ‘to become wet’ uses the same verbalizer (cf. Uyghur *höllän-*). Lopnor *azza-* ‘to decrease (intr.)’, formed with *-LA*, is used vs. Uyghur *azay-*. A Mongolic verbalizer appears in *qaqšī-* ‘to become dry’, *yarımšī-* ‘to become half as much’.

Some new derivations from old stems are discussed in the following section.

### 9. Lexical features

Numerous Lopnor lexemes are absent from Uyghur, and are therefore often listed as peculiarities in the literature. A large portion of them, for instance fishing and boating terminology, are of Mongolic origin, and are not pertinent to our present topic. The following selection includes apparently old words that happen to survive in Lopnor, as well as regional words shared with neighbouring dialects. The impression of specific similarity to Kirghiz is somewhat exaggerated by the following table; several of these lexemes are also attested elsewhere in Turcia.

Lopnor	Kirghiz	Uyghur	Yugur		
<i>awušqa</i>	<i>abišqa</i>	---	<i>ošqa</i>	<i>*avička</i>	old man <sup>32</sup>
<i>az(i)na-</i>	<i>azina-</i>	---	---	---	to neigh <sup>33</sup>
<i>ör-</i>	<i>ör(i)-</i>	---	---	<i>*ör-</i>	to climb
<i>qaraq</i>	[ <i>qarek</i> ]	[ <i>qaraq</i> ]	<i>qaraq</i>	<i>*karak</i>	eye [pupil] <sup>34</sup>
<i>qurtqa</i>	---	---	<i>qu<sup>h</sup>rtqa</i>	<i>*kurtka</i>	old woman
<i>qarišqur</i>	<i>qa(ri)šqir</i>	---	---	---	wolf <sup>35</sup>
<i>sayyaq</i>	<i>sayyaq</i>	---	---	---	gadfly <sup>36</sup>
<i>saysi-</i>	---	---	---	<i>*sarsi-</i>	to scold <sup>37</sup>
<i>suy elik</i>	---	---	<i>sugilig</i>	<i>*suk älig</i>	index finger
<i>sulu</i>	<i>suluu</i>	---	---	?< <i>*silig</i>	beautiful <sup>38</sup>
<i>tünül-</i>	<i>tünül-</i>	---	---	<i>*tünül-</i>	to lose hope <sup>39</sup>

32 Khotan has *obušqa* ‘old man’ (Гопури).

33 A form *azna-* ‘to bellow’ is reported by Jarring, and one of the anonymous reviewers stated that *azna-* ‘to neigh’ is a common Uyghur word. Osmanov, Гопури and Mihray give *kišnä-* as its standard Uyghur equivalent. It is not listed by Nadžip, Schwarz and the UHL; the Large Uyghur dictionary of 2006 gives Uyghur *azna-* ‘(of a bull) to roar before rutting’.

34 Lopnor *qaraq* also occurs in the compounds *aq qaraq* ‘white of the eye’, *qara qaraq* ‘iris’ and *oļyon qaraq* ‘pupil’.

35 Possibly a taboo-related *Ersatzwort* from *\*kara ičkur* ‘black belt’ (also found in Kazak and elsewhere in Kipchak).

36 This derives from the verb *say-* ‘to stab, prick’ which is attested in Kirghiz but not in Lopnor.

37 Гопури reports Turfan *sarsi-* ‘to shout and shove, to mistreat, torment’.

38 Perhaps a development of *\*silig* < *\*silig* ‘smooth’, cf. Uyghur *siliq*.

<i>üčük</i>	<i>ičik</i>	---	<i>i<sup>h</sup>rcik<sup>h</sup></i>	<i>*ičük</i>	fur coat
<i>yumuš</i>	<i>jumuš</i>	---	---	<i>*yumuš</i>	matter

Lopnor *örmügüčü* ‘spider’ stems from *\*(h)ör-* ‘to weave’, but displays many irregular developments in the endings throughout central Turkic. It corresponds to Uyghur *ömičük*, Yugur *orimči*, and Kirghiz *örmökčü*.<sup>40</sup>

Among kinship terms, an etymologically problematic category, it is interesting that Lopnor has *ača* ‘father’ as in Yugur, and *ene* ~ *inä* ‘mother’, *eje* ‘elder sister’ as in Kirghiz.<sup>41</sup>

I will conclude here with a number of Lopnor lexemes which do not cast light on Lopnor’s affinities within Turkic, but underscore its uniqueness. Some are old Turkic words, such as *altin* ‘underside’, *läk* ‘crocodile’ (DLT *nag*, originally Sanskrit *nāga* ‘serpent’), *opur* ‘pit, hole’ (Old Turkic *opri*), *qaaliq* ‘vine trellis; storage’ (Old Turkic ‘attic?’), *qaŋ* ‘grandfather’ (Old Turkic ‘father’), *yuruŋ* ‘scrap’ (DLT *yurun* ‘id’). *suuq-* ‘to hide’ (*soq-* in Turfan) is an extended meaning of *\*suk-* ‘to insert’.

Some words are apparently based on old stems, such as *bolduruq* ‘leaven, yeast’ from *bol-* ‘to become; (of dough) to rise’, *čayqaq* ‘wave’ from the verb *\*čayka-* ‘to shake, stir, rinse’, *qoluštuq* ‘love’ from *\*kol-* ‘to ask for (a girl in marriage)’,<sup>42</sup> *sančalaq* ‘thorn’ from *sanč-* ‘to pierce’, *saraŋan* ‘reed bed’, possibly related to *\*sa:z* ‘swamp’, and *toqšuryuč* ‘poker (for the fireplace)’ from *\*toki-š-ur-* ‘to knock together’.

Others are etymologically unclear, such as *kirišek* ‘palate’, *qipal* ‘temple (of the head)’, *siyrim* ‘spindle whorl’, *soqomoq* ‘pole for tying up horses’, and *sög* ‘stone (in fruit)’.

Yet others are morphologically transparent, but semantically specialized, such as *baylaq* ‘shackles’, lit. ‘tie, bond’, *uyčaq* ‘two-year-old bovine’, lit. ‘small bovine’, and *ipčäk* ‘rein’, lit. ‘small cord’. Lopnor *sekirgüč*, lit. ‘hopper’, is used for ‘grass-hopper’, whereas in South Siberia the same formation denotes the flea.

Creative compounds include Lopnor *γarištamal* ‘bat’, which seems to go back to *\*kariš* ‘spread arms, fathom’ and *\*ta:pan* ‘sole’. Other inventions include *aaqa quuruq* ‘anus’, lit. ‘back tail’, *iyiŋwaši* ‘kneecap’ (also Kirghiz), lit. ‘spindle-whorl’, *paqa taš* ‘tortoise’<sup>43</sup> instead of Uyghur *taš paqa* (lit. ‘stone toad’), *oraq waši* ‘horse’s muzzle with a bump’ (also Kirghiz), lit. ‘sickle-head’, *qazaŋ qapi* ‘snail’, lit. ‘pot bag’, *tam tekä* ‘*Uroctea* spider’, lit. ‘wall buck’, *sayq siqmaq* ‘bladder (of livestock)’.

39 One reviewer provides the equivalent Uyghur form *tügül-*, which I have not found elsewhere in that meaning.

40 The more common Kirghiz *jörgömüš* was remodelled on the basis of the verb *\*yörgä-* ‘to wrap’.

41 The more widely occurring *ata*, *aba/awa*, *dada* ‘father’ and *ana* ‘mother’ are also found in Lopnor. Malov records *apa* (‘mother’ in Uyghur) with the meaning ‘form of address from a younger to an older co-wife’.

42 Note also Lopnor *qoluqtuq* ‘having a suitor (said of a girl)’ from the same verb, with an equivalent in Kirghiz *qoluqtu* ‘bride’.

43 Thus according to Fu et al. Malov has *paqa taš* ‘low stone’.

lit. ‘yellow squeezing’, and *qarin yayqandi(si)* ‘last child’, lit. ‘result of a shake of the belly’.

### 10. Preliminary conclusions

Although the Khotan dialect was not evaluated here, we can certainly agree with Wei (1989) that Lopnor is the most divergent of the Turkic idioms grouped together under the name “Modern Uyghur”. Under other circumstances, it might have been widely considered a Turkic language. However, it does not automatically follow from the materials discussed here that the deviations from Uyghur should be attributed to non-Chaghatay influences, let alone to partial Kipchak ancestry.

Lopnor phonology reveals a mixed character, apparently involving contributions from at least two Turkic languages. Most crucial phonetic developments and tendencies, such as the development of word-final \*-g and pronominal *n*, are in agreement with Uyghur. Vowel harmony, vowel contractions and consonant assimilations deviate from Standard Uyghur. Some of the non-Uyghur phonetic features in Lopnor are reminiscent of Kipchak, but they are not exclusive to Kirghiz, nor are they peculiar enough to make an external source the only possible explanation.

These superficially similar developments do not necessarily follow the same rules as in Kirghiz. Moreover, the same developments have often taken place in other parts of Turcia. For instance, the fourfold vowel harmony in low vowels can also be found in Yakut and Turkmen, and could well develop elsewhere. The delateralisation of *-l-* has developed several times independently in different parts of Turcia, e.g. in Bashkir (but not in Tatar), in Kazak (but not in Noghay), in Western Yugur and in South Siberian Turkic. The treatment of the sequence *-AgU* is one of the more convincing instances where the Lopnor forms are incompatible with Uyghur, and could indeed be of Kirghiz, or at least Kipchak, origin.

Most Lopnor nominal and verbal morphology resembles that of Uyghur. It does feature non-Uyghur forms in both derivation and inflection, but only some of these, such as the equative *-day*, specifically suggest Kipchak influence.

Although some of the Non-Uyghur elements of the Lopnor lexicon have sometimes striking parallels in Kirghiz, many such items seem to be old words that happen to be replaced by foreign lexemes in Standard Uyghur, and do not constitute evidence for a Kipchak “layer”.

In view of the above, it makes sense to look beyond Lopnor’s official status as a subdivision of Uyghur and study it as a separate Chaghatay variety, a non-written sister language to Uyghur and Uzbek with its own convoluted history, as Malov did 60 years ago. The fact that Lopnor, in its linguistic decline, has now become ‘virtually Uyghur’ is undeniable and interesting, but does not bear on the question of whether it was *originally* a kind of Uyghur.

The aim of this paper has been to contribute to the discussion of the linguistic history of Lopnor, which is far from being settled. Many Turcological questions relevant to this problem are still unresolved.

Lopnor needs to be systematically compared with varieties of Uyghur, especially neighbouring ones such as Khotan, Qomul, and Turfan, which have already shown similarities to Lopnor in lexicon and some details of phonology.

The Kipchak component of Lopnor as well as of Standard Uyghur will have to be investigated further. It is insufficiently appreciated that the development of Uyghur itself has not been straightforward, which has led to internal inconsistencies, as exemplified by the development of the similarly-structured items *\*buzagu* ‘calf’, *\*kīragu* ‘hoarfrost’, and *\*takagu* ‘chicken’ into Uyghur *mozay*, *qiro*, *toχu*. Apart from its Chaghatay core, which it shares with Uzbek, Uyghur also displays a noticeable Kipchak influence, as well as remnants from Old Uyghur.

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