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Mongghul, Mangghuer and beyond: estimating the proximity

The paper's chief goal is to evaluate the intensity of relations between various idioms of Mongolic languages within the Qinghai-Gansu Sprachbund, with special focus on Mangghuer and Mongghul dialects. On the basis of 58 grammatical and phonological shared innovations we attempt to deepen our understanding of the pathways and patterns of language change taking place in this area.

Keywords: Qinghai-Gansu Sprachbund; language contacts; Monguor language; Shirongolic languages; Mangghuer language; Mongghul language; Mongolic languages; shared innovations.

Mongghul and Mangghuer are two closely related endangered languages of the Mongolic family, spoken in Qinghai and Gansu provinces of China. For a long time they have been generally considered as a single Monguor language with two main dialects. Although the division of these idioms into at least two languages has gradually become accepted among specialists, new linguistic works continue to be published in which both languages are still referred to as Monguor dialects.

Our paper is an attempt to clarify and evaluate the intensity of relations between various idioms of QG Mongolic languages with special focus on Mangghuer and Mongghul, and to investigate various isoglosses within these languages. We do not discuss here the peculiarities and features shared by all QG Mongolic languages.

The languages of the region belong to the so called Qinghai-Gansu Sprachbund (Yellow River language union, Amdo Sprachbund, the Northwest China Sprachbund, etc., see Dwyer 1992, 1995; Slater 2003a; Janhunen 2007, 2012). This Sprachbund includes languages and dialects of four families: Sinitic (Northwestern Mandarin, Gangou, Tangwang, Wutun, Linxia /Hezhou/), Bodic (Amdo Tibetan), Turkic (Salar, Western Yugurs), and Mongolic (Mongghul, Mangghuer, Dongxiang, Baoan /Qinghai and Gansu varieties/, Kangjia, Shira Yughur).

Due to intensive interaction, languages of different types started to share phonetic, morphologic and syntactic features. Many of the speakers are proficient in two or more languages or dialects: Standard Chinese (Putonghua), Qinghai Mandarin, Amdo Tibetan. The choice of *lingua franca* in the region depends on religious identity: it is Amdo Tibetan for Buddhists, but Northwestern Mandarin for Muslims. Such interaction has caused serious changes in language structure and the appearance of idioms like Wutun, Gangou, Tangwang which are sometimes even labelled in linguistic works as "creole" or "hybrid".

The official Chinese classification of minorities refers to Mongghul and Mangghuer communities as Tu people (*Tuzu* 土族). Actually, *Tuzu* is one of the 55 national minorities, and it is a common name for people of different nationalities and speakers of different languages: Mongol-speaking Mongghul, Mangghuer, and Qinghai Baoan (Gansu Baoan are officially recognized as a separate Baoan nationality); speakers of Wutun (a Sinitic language); and Tibetan-speaking Shaowu Tuzu, who were considered Tibetans until 1986 (Janhunen et al. 2007).

According to Poston and Xiong (2014: 118), the number of the Monguor in 2010 was 289,565. The number of Monguor speakers in 2000 was about 100,000 (Zhang 2012: 37).
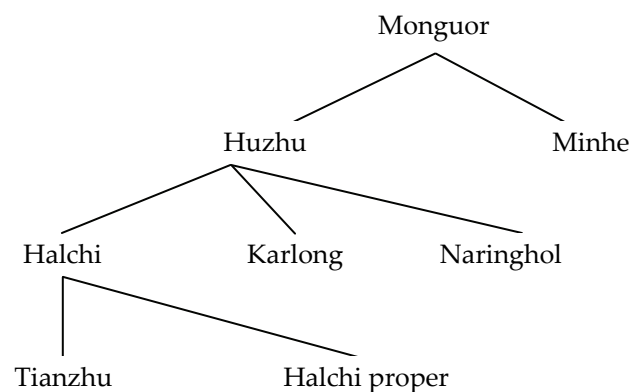
The Mangghuer (or Minhe Mangghuer, *минхэ*) speakers live in Minhe Hui and Tu Autonomous County (Qinghai); their number is approximately 25,000 (Slater 2003b: 307). Little is known about dialectal varieties of Mangghuer. Slater (2003b: 308) states that "Speakers report noticeable dialect differences, particularly in the areas of phonology and lexicon, but a systematic study has not yet been undertaken."

Mongghul (also named Huzhu Mongghul, *хуцзу*) speakers live in Huzhu Tu Autonomous County, Datong Hui and Tu Autonomous County, Ledu district, Menyuan Hui Autonomous County (Qinghai), Tianzhu Tibetan Autonomous County, Yongdeng county, Linxia county (Gansu) (Junast 1981: 1, Georg 2003: 286).

There are two main theories about the origins of the Monguor: the ʹMongol theoryʹ and the ʹTuyuhun theoryʹ. According to the first one, the Monguor are descendants of Mongol soldiers who arrived into the region in the 13th century. The second theory suggests that the Monguor are the descendants of the people of the Tuyuhun (吐谷浑) kingdom (3th–7th century) (for details see e.g. Cui Yonghong et al. 2015; Georg 2003: 287; Slater 2003a: 16–19; Schram 1954–1961; Lü Jianfu 2002; Li Keyu 1993, 2008, etc.).

Dan Xu and Shaoqing Wen (2017: 60–61) have studied Y-chromosomal data of the Huzhu Monguors. According to the results, the most frequent lineages were haplogroups R1a1a-M17 13,22% (predominant in some Turkic-speaking populations), D1-M15 10, 74% (associated with Tibeto-Burman populations), O3-M122, O3a2c1a-M117, O3a1c-002611 20.7% (predominant in Han and Hui populations, but rare or absent in Mongolic and Turkic populations). Haplogroups C3*-M217, C3c-M48 and C3d-M407, the common paternal lineage in Mongolic-speaking populations, appear with relatively low frequency — 9,09%.

De Smedt and Mostaert (1929: 145) and later Todaeva (1973: 11) list three Mongghul dialects: Naringhol, Halchighol, and Fulaan Nura. Janhunen (2006: 28; Janhunen et al. 2007: 179–180) considers Halchighol and Naringhol to be two separate languages. Georg (2003: 286) mentions a possible dialectal variety of Mongghul spoken in Menyuan Hui Autonomous County (Qinghai). Faehndrich (2007: 11–17) discusses Naringhol, Halchighol, Karlong (Fulaan Nura), Datong (possibly extinct), Tianzhu, Menyuan, Ping'an varieties. She proposes the following tentative Monguor family tree (Faehndrich 2007: 242):

The first records on the Monguor people (who were called ʹDadaʹ, ʹDaminʹ, ʹTudaʹ, ʹTuminʹ, and ʹTurenʹ) can be found in documents going back to the Ming dynasty (1368–1644; see Cui Yonghong et al. 2015: 18). The Catholic missionary Évariste-Régis Huc described Mangghuer spoken in Sanchuan as a Mongolic language with Chinese and Tibetan elements (Huc 1850: 36). N. M. Przheval'skii (1875: 199) in his materials gave a description of the local people of Qing-

hai named *Daldy*. G. N. Potanin mentions that the Chinese and the Dongxiang called them *Turen*, while other Mongols gave them the name of *Dalda* or *Doldo* (Potanin 1893: I, 342; II, 410). He included some Mangghuer words and data on other Shirongol languages in the materials of the expedition (1893: II, 410–425).

Monguor varieties are not evenly represented in scientific literature. Halchighol seems to be the most frequent idiom in linguistic descriptions. Dominik Schröder published a description of the religious life (1952–1953), two texts (1959–1970), and description of grammar (1964). "Mongorskii yazik" (Todaeva 1973) contains a detailed grammar of Halchighol Monguor with data on Naringhol, Fulaan Nara, Minhe, and different types of texts. Other Monggul materials based on Halchighol data are the grammar descriptions of Junast (1981) (with some comparison with Mangghuer), that of Chingeltei and Li Keyu (1988) (with comparison with other Mongolic languages), vocabularies of Hasbaatar (1985) and Li Keyu (1988), materials of Chingeltei (1986), Chuluu (1994), short descriptions of Georg (2003) and Sinor (1952), etc. Dpal-ldan-bkrashis, K. Slater et al. (1996) published materials and a small dictionary of both Mangghuer and Mongghul. Different aspects of Mongghul phonetics, grammar, vocabulary and dialectology are discussed in Róna-Tas (1960, 1962, 1966), Chingeltei (1989), Kakudo (1987, 1997), etc.

Antoine Mostaert and Albrecht de Smedt wrote the first detailed description of Naringhol Mongghul including phonetics (1929–1931), grammar (1945), and a big Monguor-French dictionary (1933).

Faehndrich (2007) focused her dissertation on the Fulaan Nura or Karlong.

The Mangghuer grammar was published by Slater (2003a); sketches of Mangghuer grammar were written by Junast and Li Keyu (1982), Slater (2003b).

The phonology of the Mongol languages of Qinghai-Gansu is studied in detail by Nugteren (2011), who also compared some grammar and lexical features. The position of Monguor languages within the Mongolic family was discussed in many papers, such as Sanzheev (1952), Poppe (1955), Luwsanwandan (1959), Doerfer (1964), Binnick (1987), Nugteren (1997, 2011: 34–56), Rybatzki (2003: 386), Gruntov, Mazo (2015), etc.

Below we shall discuss the characteristics that differentiate Mangghuer from Mongghul, and Mongghul dialects from each other; the focus will be on what features they share with the other Mongolic languages of the region. In our paper we do not consider lexical borrowings (e.g. borrowing of numerals), but borrowing of grammatical elements is taken into account.

Phonetics

Mangghuer (Slater 2003b: 309)

Consonants

	labial	alveolar	retroflex	palatal	velar	uvular
stop	p b	t d			k g	q G
affricate		ts(c)[1] dz(z)	tʂ (ch) dʐ (zh)	tɕ (q) dʑ (j)		
fricative	f	s	ʂ (sh)	ɕ (x)	h	
nasal	m	n			ŋ	
liquid		l	r			
glide	w			j		

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[1] Many authors use *pinyin*-based orthography; the corresponding transcriptions are given in brackets.

Fricative *f* generally occurs in Chinese borrowings.

Five short vowels: /a/, /e/, /i/, /o/, and /u/.

Mongghul (Georg 2003: 290)

Consonants

	labial	alveolar	retroflex	palatal	velar	uvular
stop	p b	t d			k g	G
affricate		ts(c) dz(z)	tʂ (ch) dʐ (zh)	tɕ (q) dʑ (j)		
fricative	f	s	ʂ (sh)	ɕ (x)	h	
nasal	m	n			ŋ	
liquid		l	r			
glide	w			j		

Five short vowels: /a/, /e/, /i/, /o/, /u/ and five long vowels: /ā/, /ē/, /ī/, /ō/, /ū/.

Affricates *ts*, *dz*, *tʂ*, *dʐ* occur mostly in Chinese and Tibetan loanwords.

In both languages stops and affricates are distinguished by aspiration; opposition of aspirated voiceless consonants vs. unaspirated voiceless consonants are often represented as opposition of strong vs weak consonants.

Mangghuer seems to be the only Mongolic language that has tones in native words. Dwyer (2008) discovered that several pairs of homophones differ in tones: one of the members of a pair is pronounced with a high tone, another with a low tone, e.g.

a. *wulang* [^{w}u^{22}lã^{55}] 'drinking'

b. *wulang* [^{w}u^{11}lã^{51}] 'many' (Dwyer 2008: 128).

There are also some indications that Baoan is currently in the process of developing a tonal system (Li:1986), but so far these tones have been found in loanwords only, although they do not match the tones in the donor language.

In the following cases the same features can be observed in both Mangghuer and Mongghul, but in Mongghul they appear more systematically or more often:

— development of strong obstruents. If both the word-initial obstruent and the word-internal obstruent are strong, the word-internal obstruent weakens, e.g. *huja-* 'to bark' < **kuca-* (Georg 2003: 291). The sequence of initial weak obstruent + internal strong obstruent changes to initial strong obstruent + internal weak obstruent, e.g. *pujig* 'book' < **bicig* (Georg 2003: 291). Weakening of the internal obstruent can also cause the appearance of secondary initial *h-*, e.g. Mangghuer *fʒu~sʒu* < **husun* < **usun* ˙water' (Nugteren 2011: 38), Halchighol *xaldan* (Todaeva 1973: 372), Naringhol *xardam* (SM 1933: 160) < **altan* 'gold' (for details see Khelimsky 1984: 27; Georg 2003: 291–292; Nugteren 2011: 38, 252; Faehndrich 2007: 42–43). Such developments can be observed in all Mongolic languages of the region; in Monguor they are more frequent and systematical, and in Mongghul they appear more systematically than in Mangghuer;

— elision of vowels is also typical of Qinghai-Gansu languages, but it seems to appear more frequently in Mongghul, Baoan and SY. In many cases it leads to the appearance of new consonant clusters, including word-initial ones. Consonant clusters are found in all Mongolic languages of Qinghai-Gansu except for Dongxiang (but cf. Kim 2013: 351), whose syllabic structure has undergone strong Chinese influence. It is important to note that Mangghuer (for which we can compare historical records from the end of

the 19ᵗʰ century with modern data) has a tendency to eliminate secondary clusters via insertion of epenthetic vowels (Nugteren 2011: 91, 124–125, 127, 130–131, 133–134, 199). The precise number of such clusters differs: Georg lists 24 clusters in Halchighol (Georg 2003: 293). Faehndrich (2007: 73–74) notes that Karlong is in the process of developing new clusters (in addition to the 25 already attested clusters), which are not permitted in other Mongghul dialects. Junast and Li (1982: 478) state that Mongghul has twice as many clusters as Mangghuer, but they do not give the exact numbers. Anyway, Mongghul has many more initial clusters than Mangghuer.

The comparative data are given in Table 1.

There is a single phonetic shared innovation that separates Mangghuer and all Mongghul dialects from other Mongolic languages of Qinghai-Gansu: the reflex of *kï-/*ki- (ći in Monguor and ki/xi in the other languages, see Todaeva 1973: 30–31; Georg 2003: 291; Nugteren 2011: 219–220).

Phonetic variability within Mongghul dialects may be illustrated as follows:

— *-l is retained as -l in Halchighol and Karlong, but becomes -r in Mangghuer and Naringhol. The same innovation can also be found in Kangjia, where final *-l has several reflexes: -Ø /-r/-l/-lV/-n (Sečenčogt 1999: 28; Nugteren 2011: 244);
— *-m remains as -m in Naringhol and Halchighol, becomes -n/-ŋ in Mangghuer, and can be realized as -m or -n in Karlong. Mangghuer shares this innovation with Dongxiang and Kangjia. Sečenčogt (1999: 28) notes that in Kangjia *-m can also be realized as -r.

The Monguor idioms have one innovation in common with SY, namely ə as a reflex of *U in accented syllables (Nugteren 2011: 128).

The main phonetic differences between Mongolic languages of the region are presented below.

— CM *-b- in intervocal position is retained as obstruent -b-, but turns to fricative w, y or Ø in the other languages (Nugteren 2011: 208–209);
— CM *-rb- remains as -rb-, but usually develops into -rw- or -r- in the other languages (for details see Nugteren 2011: 209);
— CM *-bC- is replaced by -G- (usually before affricates and sibilants). In Mongghul it is either retained as -bC- or changed into s, ṣ, ś +C; it is also retained in SY and Baoan, changes to fricative or affricate +C / -r- +C in Kangjia, and is dropped in Dongxiang (for details see Nugteren 2011: 213);
— final CM *-r fuses with the preceding vowel into ɚ (Slater 2003a: 31) in Mangghuer, most probably under Chinese influence, but this change does not take place in Mongghul;
— CM *ǰ and *č develop into two sets (retroflexes and alveopalatals) in Mangghuer, but only into one set of affricates in other languages: alveopalatal in Mongghul and Baoan, palatal in SY and Kangjia and retroflexes in Dongxiang (Nugteren 2011: 218);
— velar *k(a) is reflected as q- in Mangghuer and Dongxiang but as h- in Mongghul, Baoan and Kangjia; thus, Mongghul lacks aspirated uvulars. SY has both reflexes q- and h- (Nugteren 2011: 220);
— CM *h- before originally rounded vowels develops into f- in Mongghul and Dongxiang in contrast with h- in Mangghuer and SY. In Baoan and Kangjia both reflexes exist (for details see Nugteren 2011: 250);
— the vowel i is realized as [ɿ] and [ʅ] following apicals and retroflexes in Mangghuer, Dongxiang and Kangjia under the influence of Chinese;

Table 1. Phonetic and phonological innovations in Qinghai-Gansu Mongolic.

	Mangghuer	Naringhol	Halchighol	Karlong	SY	Baoan	Dongxiang	Kangjia
tonal opposition	+	-	-	-	-	+-	-	-
*-l	-r	-r	-l	-l	-l	-l	-ŋ	-Ø /-r/-l/-n/-lV
*-m	-n/-ŋ	-m	-m	-m/-n	-m	-m	-n/ŋ	-n/-ŋ/-r
*U in accented syllables		usually ə					u	
*-r	V+r > ə˞			-r				Ø/-rV
*k(a)-	q-		x-		q-/x-	x-	q-	x-
*-bV-	-b-		-v- / -Ø- / -j-		-β- / Ø/-ɣ-	-β-/ Ø/-j-		v-/ Ø/
*-rb-	-rb-		-rv-/-r-		-rβ-	-br-/-wr-/-rw-	-r-/ -w-	-r-
*-bC²-	-G-		-bC- / s, ʂ, ś +C		-bC-	-bC-	-C-	fricative or affricate +C / r+C
*-d	Ø		-d/r		-d	Ø/-dV/r	-dV	-dV/r
*ǰ and *č	both retroflexes and alveopalatals		alveopalatal		palatal	alveopalatal	retroflexes	palatal
CM*hU-	h-		f-		h-	h-/f-	f-	h-/f-
distinction between short and long vowels	-		+			+-	-	-
long vowel in the denominal verb suffix -rA / the intransitive marker -rA	-	+		+-			-	
[ŋ] and [ɳ] following apicals and retroflexes	+			-				+

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² C = sibilants or affricates.

— secondary distinction of long and short vowels is present in Mongghul, Shira Yughur, Ñantoq Baoan and Xiazhuang Baoan. Mangghuer, Dongxian, Dahejia Baoan and Kangjia lack it, although this loss might have been independent (and secondary as well); see details in Nugteren: 2011: 134–137. Chingeltei (1986) provides some examples of Mangghuer words with long vowels, but this phenomenon has not been confirmed in other grammatical manuals and descriptions;

— Nugteren (2011: 190–191) discusses the existence of vowel lengthening (or vowel length preservation) in Mongghul (and partly in SY) in the denominal verb suffix *-rA* and the intransitive marker *-rA*.

Word formation

Borrowed Chinese or Tibetan verbs are adopted by attaching the following sets of suffixes:

— Mangghuer *-la*, *-li* (Slater 2003a: 113–114), Mongghul *-la* (Todaeva 1973: 95–96), Karlong *-la* (Faehndrich 2007: 130), SY *-la* (Tenishev, Todaeva 1966: 63) and Dongxiang *-la*, *-lo*, *-lie* (Todaeva 1961: 40), e.g. Halchighol *gua* (Chinese 挂 *guà* 'to hang') — *guala* (Todaeva 1973: 96).

— Mangghuer *-ke*, *-ge* (Slater 2003a: 113), Naringhol *-ki*, *-gi*, Halchighol *-ki*, *-gi* (Todaeva 1973: 95), Karlong *-ki* (Faehndrich 2007: 130–131), SY *-ge* (Tenishev, Todaeva 1966: 63), Baoan *-ge* (Todaeva 1973: 95), Dongxiang *-gie* (Kim 2013: 352). Todaeva (1973: 75) notes that in Halchighol and Naringhol the variant of the suffix depends on the type of initial consonant: *laki* 'to lead', but *ta:gi* 'to step'.

— Mangghuer *-ra* and Dongxiang *-re ~ -ro* (Kim 2013: 352): Mangghuer *gaoxinra* ''be happy' < Chinese *gāoxìng* 高兴 (Sater 2013: 113).

— Mangghuer *tu*: *pintu* 'be equal' < Chinese *píng* 平 'equal' (Slater 2013a: 113).

In Karlong, the diminutive/singular suffix *-ŋge < *nige* 'one' can be attached to some verbal forms to weaken the strength of the statement (Faehndrich 2007: 183–184) or to underline a quick change of successive actions (Todaeva 1973: 129).

Only in Mangghuer can one find the comparative marker *-her* (Slater 2003b: 312).

Karlong uses a specific adjective intensifier *-Gula* (Faehndrich 2007: 84, 138).

Halchighol *-mal* and Naringhol *-mar* have preserved the Common Mongolic resultative marker (Georg 2003: 294), while other idioms have lost it.

Table 2. Word formation innovations in Qinghai-Gansu Mongolic

	Mangghuer	Naringhol	Halchigol	Karlong	SY	Baoan	Dongxiang	Kangjia
adaptation of borrowed stems	la, li	la	la	la	la		la, lie, lo	
	ke, ge	gi	ki,gi	kɨ	ge	ge	gie	
	ra						re, ro	
	tu							
singulative suffix with verbs				ŋge				
intensifier				Gula				
comparative	her							
resultative		mar	mal					

Noun

Several Shirongolic languages (and Turkic Salar) have developed a postpositive indefinite article which goes back to Common Mongolic *nige-n* 'one', most probably due to Tibetan influence (Nugteren 2013: 227): Kangjia *-niɣe/-nɣe/-ɣe* (Sečenčogt 1999: 89), Bonan *-gə/-ngə* (Chen and Chingeltei 1986: 81), Mangghuer *-ge/-gi* (Todaeva 1973: 43) and Mongghul *-ŋgə* (Junast 1981a: 18), *-nge/-ge* (Todaeva 1973: 43; Faehndrich 2007: 84–86) (Table 3).

Cf. Kangjia:

enə kun   niɣe sɔ   va
this person SG   good be
'This person is good.' (Sečenčogt 1999: 90)

Table 3. Indefinite article in Qinghai-Gansu Mongolic.

Mangghuer	Naringhol	Halchighol	Karlong	SY	Baoan	Dongxiang	Kangjia
+	+	+	+	−	+	−	+

The dualis marker *-Gula/-Gurla* in Karlong surprisingly does not correspond to the paucalis marker *-Gula* in Baoan, since the Karlong form goes back to *Gu:r* 'two' + *la* 'Instrumentalis' (Faehndrich 2007: 89), while Chen and Chingeltei convincingly argue that Baoan *-Gula* goes back to grammaticalization of *Gulla* 'three persons' < *ɣurbaɣula* (Chen & Chingeltei 1986: 85–86, 159).

The pluralis marker *-tang* mentioned in (Chuluu 1994: 5) for Halchighol is not confirmed by any other source and, moreover, Faehndrich underlines that all her language consultants refused to accept this form as normal; consequently, we did not include it into the table.

The Halchighol / Karlong affix *-maŋe/-maŋge* is used for associative plurality only (Georg 2003: 295, Faehndrich 2007: 88).

Data on dualis and plural markers are presented in Table 4.

Table 4. Dualis and plural markers in Qinghai-Gansu Mongolic

	Mangghuer	Naringhol	Halchighol	Karlong	SY	Baoan	Dongxiang	Kangjia
Dualis				-Gula/-Gurla				
Pluralis		-sGi	-sge	-sgï				
	-se			-sï	-s			-sʉn/-suɯ
			-ŋgula	-ŋgula				
			-ŋgu	-ŋgu				
				-la		-la	-la	-la
				-sïla			-si-la/-si-la/ -s-la	-la-sʉn
	-taŋ	-taŋ					-tan	
Associative plurality			-maŋe	-maŋge				

Case

An important feature of historical Mongolic morphonology is the reflexation of *-n*-stem declension. Unstable *-n* gets lost in NOM in Mangghuer and Mongghul, but is preserved in SY

and (not consistently) in Baoan, Dongxian and Kangjia (for details see Todaeva 1973: 30–31, 47; Georg 2003: 291, 295–296; Nugteren 2011: 45–47; Rybatzki 2003: 375). However, while in other Shirongolic idioms forms with originally unstable -*n* are lexicalized either in -*n* form or in -*Ø* form, in Mongghul -*n* is absent in NOM, but occurs in DAT.LOC in Karlong, and in DAT.LOC and ABL in Halchighol and Naringhol (Faehndrich 2007: 100).

Merging of GEN and ACC in one affix across the nominal paradigm (but not in Pronominal declension, see below) is a common feature for all QG languages, and thus we did not include it into the table. However, it is worth mentioning that Faehndrich (2007: 110) lists variants -*ni*, -*na* and -*nə* for Genitive in Tianzhu dialect, but only -*ni* and -*nə* for Accusative.

There is a peculiar reflex of DAT.LOC *DU > *di* (Rybatzki 2003: 377). According to Rybatzki, it occurs only in Shira Yughur and Halchighol; however, it is also present in Karlong (Faehndrich 2007: 94).

Mongghul locative -*rV* corresponds to Dongxiang Prolative -*rə* (Faehndrich 2007: 110). The Tianzhu dialect of Mongghul demonstrates a longer form of the locative -*təra*, which possibly may imply that Todaeva (1973: 51–52) was right assuming that the locative -*rV* in Mongghul might be a grammaticalized form of the locative adverbs *dotu-ra* 'inside' and *de'e-re* 'over' etc. However, it might as well be an archaism preserving the same locative marker that can easily be found in the aforementioned locative Mongolic adverbs and in *dow-ra* 'below' (Gruntov, Mazo 2020 forthcoming), and in that case Tianzhu form might be an instance of a compound affix (DAT.LOC + PROL).

Monguor languages have developed a new DIR marker (Naringhol -*dʐi*, -*dʐidʐi*, Mangguer -*dʐi*, -*dʐudʐi*), which is a result of grammaticalization (Slater 2003: 171–172; Nugteren 2014).

Table 5. Case in Qinghai-Gansu Mongolic.

	Mangghuer	Naringhol	Halchighol	Karlong	SY	Baoan	Dongxiang	Kangjia
unstable -*n* in Nom	—	—	—	—	+	+-	+-	+-
DAT.LOC *DU > di			di	dɨ	di			
LOC –rV		-re	-ra/-re/-ri	-rɨ			-rə (Prolative)	
DIR	-dʐi/-dʐidʐi	-dʐi/-dʐuʒi	—	—	—	—	—	—
INS | SOC	-la	-la/-ra	-la	-la	-lV	-ɢalə	-lə / -ɢala	-ɢala
COM	-tai	-dē	-dē/ -dī	—	-di	—	—	—

Personal and impersonal possession

Loss of 1st and 2nd-person possessive affixes in Monguor languages, Baoan and Kangjia seems to be an areal innovation (Rybatzki 2003: 380).

Reflexive (impersonal possessive particle) in QG languages goes back to the Common Mongolic reflexive particle **ben.*

Table 6. Possessive affixes in Qinghai-Gansu Mongolic

	Mangghuer	Naringhol	Halchighol	Karlong	SY	Baoan	Dongxiang	Kangjia
Reflexive particle	na / nang	nā	nā	na/ nā [3]	-an	—	ne	—
1st and 2nd Person possessive affixes	—	—	—	—	+	—	+	—

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[3] Long vowel variant is attested in Faendrich 2007: 124.

Pronouns

The most striking feature of pronominal declension is a tendency to merge ACC and DAT.LOC forms. This merger for 1st and 2nd person sg. pronouns (and partly for plural pronouns) is fully completed in Baoan. In Mongghul 1st person sg. pronoun fuses DAT.LOC and ACC forms across all varieties of the language; however, the 2nd person sg. merges ACC and DAT.LOC only in Naringhol and Tianzhu Mongghul. Mangghuer (despite Rybatzki 2003: 376) has different variants of singular pronouns, except for the 2nd sg., where the DAT.LOC enclitic *-du* might be optional (Slater 2003a: 83).

Table 7. ACC and DAT.LOC forms of 1st and 2nd person pronouns in Mangghuer, Mongghul and Baoan (Todaeva 1973: 72; Slater 2003a: 83; Chen and Chingeltei 1986: 390, 176; Faehndrich 2007: 118)

	Mangghuer		Mongghul		Baoan	
	1Sg	2Sg	1Sg	2Sg	1Sg	2Sg
ACC	namei, nangda, nami, dami, damei, dangda	čimi (Todaeva), qimei (Slater)	ndā (Halchighol, Karlong, Naringhol), dā (Tianzhu)	čimu (Halchighol) qimu (Karlong) čimī (Naringhol) qimī (Tianzhu)	mənda, məndə, nada, nadə	qinda, qada, qədə, qədə
DAT.LOC	nameidu, namidu, damidu, nangda(du)	čimidu (Todaeva) qimei(du) (Slater)		qimɨ (Karlong) čimɨ (Halchighol, Naringhol), qimī (Tianzhu)		

Loc. in *-re* for the 1st personal pronoun (*munire*) was recorded only in Naringhol by de Smedt and Mostaert (Todaeva 1973: 70), but is absent in other Mongghul varieties and Mangghuer.

Verbs

Common Mongolic had markers for reciprocal voice *-(V)ldV-* and for cooperative voice *-(V)lča-* (cf. Janhunen 2003: 11). In modern QG languages their reflexes are often confused. In Mangghuer, Halchighol, Naringhol, Karlong, Kangjia, Dongxiang, and Shira Yughur reflexes of the reciprocal voice function as both voices. In Baoan, on the contrary, the reflex of the cooperative voice marker *-či* has acquired the functions of both voices (Todaeva 1964: 74). Descriptions of Tianzhu Mongghul lack the reciprocal or cooperative voice (Faehndrich 2007: 189).

Table 8. Merger of Reciprocal & Cooperative voices in Qinghai-Gansu Mongolic (Todaeva 1973: 102–103; Faendrich 2007: 189; Tenishev, Todaeva 1966: 65; Todaeva 1961: 42; Sečenčogt 1999: 135)

	Mangghuer	Naringhol	Halchighol	Karlong	SY	Baoan	Dongxiang	Kangjia
Merger of Reciprocal & Cooperative voices	-rde	-rdi/-di	-lde/-de	-ldɨ	-lda/-lde	-či	-ndu	-ndʉ/-dʉ

Imperative forms

Of all the forms of imperative in QG languages it is the desiderative marker which demonstrates the greatest diversity.

The origin of the formant *lax-/laš-* in Mangghuer and Mongghul (Faehndrich 2007: 156, 185; Todaeva 1973: 105) is unclear. Slater does not mention *-lašgi* in his description (Slater 2003a: 117), but Todaeva cites examples with both affixes. Thus, this element might be an innovation at the Proto-Monguoric level, since it is not attested in other QG languages.

For their equational constructions Mangghuer and Dongxian have borrowed the Chinese copula (是 *shi*) (Slater 2003a: 238; Todaeva 1961: 143) which does not have any inflectional variants (Slater 2003b: 318).

Table 9. Distribution of the desiderative marker and the copula *shi* in Qinghai-Gansu languages.

	Mangghuer	Naringhol	Halchighol	Karlong	SY	Baoan	Dongxiang	Kangjia
Desiderative 3Sg	-gi, -lašgi	-ragi	-ge, -laxge	-laxgi	-gene, -ɣane	-gə	-gə	-gʉ
Chinese copula *shi*	+						+	

Tense / aspect forms

Many languages of the Amdo Sprachbund, including most Mongolic languages of the region, have developed the category of perspective (subjective/objective distinction), i.e. marking of speaker involvement into the action, which strongly correlates with controlled vs. non-controlled actions. They have adopted this category from Tibeto-Burmanese languages (cf. detailed analysis in Slater 2003a: 194–218; Slater 2018; Brosig and Skribnik 2018: 575–579). Thus, the whole system of Common Mongolic tense/aspect affixes in most QG languages (except Dongxiang) was drastically restructured in order to fit into this new category. In some cases new affixes originated from converb/participle + copula constructions (e.g. Mangghuer *-ni* < modal converb *-n* + copula); in other cases old affixes acquired new functions (e.g. Past tense affix *-ba* in Mangghuer became a Subjective past affix).

In Shira Yughur the prospective category is clearly seen in Past tense. Nugteren (2003: 279–280) describes it as a 1st vs 2nd-3rd person opposition, but actually it is most probably the same phenomenon as perspective. It is worth noting that Todaeva also initially considered the opposition of subjective vs prospective in Monguor and Baoan as a sign of emerging personal conjugation and opposition of 1st vs 2nd & 3rd person (Todaeva 1973: 110–115; Todaeva 1964: 89), although she already proposed the possible influence of corresponding Tibetan copular construction on this phenomenon (Todaeva 1964: 89).

The present tense in Shira Yughur can also indicate similar processes. There are two present tenses: *-nAi*, which is described as referring to involuntary mental and physical actions, vs *-jla wai ~ -dla wai* referring to "specific concrete actions which are being consciously performed in the present" (Nugteren 2003: 279). It is clear that the second form goes back to the combination of imperfective converb *-ji* with the copula, a combination generally used in Mongolic for progressive aspect, hence the meaning "concrete actions". However, the opposition of voluntary and involuntary actions exactly matches the opposition of non-volitional, out of control objective forms vs. volitional controlled subjective forms in Mangghuer, described in detail by Slater in (2003a: 194–220).

Mangghuer Objective Future affix *-kun(i)ang* (Slater 2003b: 316) obviously goes back to a combination of future participle with the copula. Interestingly, Todaeva (1973: 119) explicitly

states that her Minhe Mangghuer materials do not contain any examples of such combinations.

Mongghul future affix *-m* in Karlong refers to both future and present situations (Faehndrich 2007: 156–157).

Mangghuer present forms might be the only reflex of CM confirmative tense *-laɣa* in QG languages.

In Table 10 below we present the system of tense and aspect forms in QG languages. The data are drawn from the following sources: Slater 2003a, 2003b for Mangghuer; Faehndrich 2007 for Karlong and Naringhol; Todaeva 1973 for Halchighol and Naringhol; Junast 1981 and Georg 2003 for Halchighol; Tenishev, Todaeva 1966, Nugteren 2003, and Bulchulu and Jalsan 1990 for Shira Yughur; Todaeva 1964, Chen and Chingeltei 1986, and Wu Hugjiltu 2003 for Baoan; Todaeva 1961, Buhe et al. 1985, and Kim 2003 for Dongxiang; Sečenčogt 1999, 2002 for Kangjia.

Negation and prohibitive particles

General distribution of prepositive indicative negation particles demonstrates reflexes of Common Mongolic negation particle *ülü* for non-past verb forms and reflexes of *ese* for past forms. However, this distribution can vary. The particle *ī* in Naringhol and Karlong may be an irregular variant of *ülü* > *lie* > *ī*. In Halchighol *lī* is used with present and future, rarely with past. The particle *se* is used exclusively before the past form (Todaeva 1973: 136). In Naringhol *ī* occurs rarely (Todaeva 1973: 136), Georg transcribes this marker as *yii* (Georg 2003: 303); aside from that, descriptions of Naringhol also mention the particles *li* (SM 1933: 222) and *se* (SM 1933: 341). Karlong *lī* is used with finite verbs, *ī* with finite and non-finite verbs (Faehndrich 2007: 217–219). Reflexes of *ese* are not attested in Karlong. Mangghuer *lai* is typically placed before imperfective verbs, *sai* before perfective ones (Slater 2003a: 146–147). Baoan (Todaeva 1964: 107), Dongxiang (Kim 2003: 362), and Kangjia (Sečenčogt 1999: 202–203) preserve the basic distribution. SY has only *li ~ l'* (< *ülü*) (Nugteren 2003: 283).

For Mangghuer Todaeva (1973: 107) gives *bu* as a prohibitive particle, but Slater (2003a: 147–148) instead transcribes the prohibitive as *bao* and states that in folktales there are two rare alternative forms *bai* and *bu*, the latter probably a Chinese loanword. Mongghul data are taken from (Todaeva 1973:107; Faehndrich 2007: 218–219). Dongxiang *bu* (Todaeva 1961: 58) and Baoan sGo.dmar dialect *bə* (Chen and Chingeltei 1986: 302) go back to CM *bu*, but reflexes of CM prohibitive particle *bitügei* were preserved only in Baoan *təgə* (Chen and Chingeltei 1986: 302), SY *püti* (Nugteren 2003: 283) and Kangjia *bɯde* (Sečenčogt 1999: 139–140).

Table 11. Negation and prohibitive particles in Qinghai-Gansu Mongolic

	Mangghuer	Naringhol	Halchighol	Karlong	SY	Baoan	Dongxiang	Kangjia
Negation particles	lai/sai	ī (yī)?/ li/se	lī/se	lī/ī	li ~ l'	lə/sə	ulie/ese	ne/se
Prohibitive particle < CM *bü	bu, bao	bī	bī	bī		(bə)	bu	
Prohibitive particle < CM *bitügei					püti	təgə		bɯde

Table 10. System of tense and aspect forms in Qinghai-Gansu languages

Category of perspective		Mangghuer	Naringhol	Halchighol	Karlong	SY	Baoan	Dongxiang	Kangjia
		+	+	+	+	+ (?)	+	-	+
				Finite forms and participles in predicative position					
Future	neutral		-m	-m			-m, -ne	-ne	
	SUBJ	-ni	-guī, -guni	-gi, -guni	-gi, -guni		-gi		-gi/ -guni
	OBJ	-kun(i)ang	-guna	-guna	-guna				-gua/ -guna
Present/ Non-Past	neutral				-m			-jiwə < Conv. -ji + Copula	
	SUBJ	-la bi	-ni	-ni	-ni	-jla wai ~ -dla wai (voluntary action)	-ji		-ni, -ne; -sini
	OBJ	-lang	-na	-na	-na	-nai,-nii, -nAn, -nAmnA (involuntary action)	-jo		-na; -sina
Past	neutral		-wa	-wa	-wa	-wa	-o/-wo	-wə	-wa/-pa
	SUBJ	-ba (-jia)	-ji	-ji	-ji	-j'wai			
	OBJ	-jiang	-ja	-ja	-ja				
Past perfect							-je		-tʃa, -ʃdʒa, -ʃdʒi, -tʃtʃa
Perfective	neutral	–saŋ				-(G)sAn		-sən	
	SUBJ		-dzani	-sani	-sani		-saŋɲi		-suni
	OBJ		-dzana	-sana	-sana		-saŋŋa		-suni -va

Converbs

Imperfective converb

Mongghul (all dialects) *-ji*, Mangghuer *-ji* (Todaeva 1973: 123–124), Dongxiang *-jɨ* (Todaeva 1961: 49), Baoan *-ji* (Todaeva 1964: 95), SY *-ji/-ci* (Nugteren 2003: 276), Kangjia *-jɔ/-ʤi* (Sečen-čogt 1999: 163). Since all the forms are similar, we do not include them into the table. However, it is interesting that at least in Dongxiang, Shira Yughur, and Kangjia this converb can be used as a reduplicative form (Todaeva 1961: 49; Sečenčogt 1999: 163; Nugteren 2003: 276). Cf., e.g., Dongxiang *hela xolujɨ xolujɨ.* 'They run and run...' (Todaeva 1961: 49).

Perfective converb

In QG languages reflexes of two different Common Mongolic forms *$*\gamma a$* and *$*\gamma ad$* are used in the function of a perfective converb.

In Mongghul dialects there are different perfective converbs: Halchighol: *-ā (-ē, -ō), -ānu (-ēnu,-ōnu), -wā, -wānu,* Naringhol: *-wā, -wānu/-jā, -jānu,* Karlong: *-ā, -ēd* (Todaeva 1973: 124–126), Tianzhu *-wanə* (Faehndrich 2007: 190). Todaeva considers the Mangghuer forms *-danaŋ, -daGanaŋ, -daGali* as converb markers, while Slater treats *danang* as a separate word (the conjunction 'after') and quotes the form *-da* with the same meaning (Slater 2003a: 263–266). Baoan has no such form (Todaeva 1973: 127), while Dongxiang forms *-də, -dənə* (Todaeva 1961:49) are cognates of Mangghuer ones. Kim (2003: 360) calls these Dongxiang forms quasiconverbs. SY forms *-ā, -ē, -ād, -ēd* (Tenishev, Todaeva 1966: 71), *-Gādu, -ādu* (Bulchulu and Jalsan 1990: 278–279; Nugteren 2003: 277) obviously correspond to those in Karlong. Kangjia has *-da, -ʤida* (Sečenčogt 1999: 154). Closely related might be such special forms as Karlong *-di,* Tianzhu *-di* (Faehndrich 2007: 180–181), which Faehndrich calls "completive".

Modal converb

Mangghuer *-n*, Mongghul *-n* (in Karlong one can also add the singular marker to this converb: *-neŋge)* (Todaeva 1973: 129), Dongxiang *-n* (Todaeva 1961:49), Baoan *-ŋ*, Tongren Baoan *–jaŋ* (Todaeva 1964: 95). In SY the modal converb *-(V)n* usually occurs in reduplicative sequences indicating a "repeated action performed during the action of the main verb, e.g. *ci muni zaghalidi **xalda-n xalda-n** üleyaan bar* "do your work **while looking** at my portrait!" (Nugteren 2003: 276). Rybatzki (2003: 382) states that Mangghuer has lost this participle, judging by the absence of this converb in Slater's description (Slater 2003b: 315); however, Todaeva (1973: 129) gives undoubtable examples of the existence of this converb in Mangghuer: *Te gerdu **oron** teŋgiji saGaba* '**Entering** (converbum modale) the house he asked in such a way...'.

Consecutive converb

Monghhul *-gulā*, Mangghuer *-kula* (Todaeva 1973: 130), Kangjia *-gʉ, -gʉma* и *-gʉda* (Sečenčogt 1999: 162), Baoan *-gudʑi, -guma* (Chen and Chingeltei 1986: 222–223). Xiazhuang Baoan and Dadun Baoan also have *-təxaŋ* (Chen and Chingeltei 1986: 222–223; Todaeva 1964: 95). Dongxiang and Shira Yughur lack this converb. In Karlong there is a single example in Faehndrich's data (Faehndrich 2007: 168).

Conditional converb

The conditional converb is present everywhere in QG languages and its affixes differ only phonetically. Halchighol *-sa,* Karlong *-sa,* Naringhol *-dza,* Mangghuer *-sa* (Todaeva 1973: 131–132), Dongxiang *-sə* (Todaeva 1961: 60), Baoan *-sa* (Xiazhuang, Dadun *-sə*; Ganhetan *-sɿ*) (Chen and Chingeltei 1986: 223–224), SY *-sa, -se* (Tenishev, Todaeva 1966: 71), Kangjia *-sa* (Sečenčogt

1999: 157–159). We do not include it into the table, but list these forms here, since they help to understand how the concessive converb is constructed.

Concessive converb

In QG languages the concessive converb can be formed on the basis of the conditional converb *-sA* with additional affixes. Mongghul *-sada* (Todaeva 1973: 132), Shira Yughur *-sada* (Nugteren 2003: 277), Kangjia *-sala* (Sečenčogt 1999: 159–161), Dongxiang *-seda* (Todaeva 1961: 51), but *-se-nu* in (Kim 2003: 360), and Baoan *-sede* (Todaeva 1964: 97). According to Todaeva, Dongxiang *-se-nu* is functionally synonymous with the perfective converb, while according to Kim, *-se-nu* basically serves as a concessive converb, but sometimes can also be used in the meaning 'after' (Todaeva 1961: 51; Kim 2003: 360). In Mangghuer concessive functions are performed by conditional converb *-sa* (Slater 2003a: 255–256).

Terminative converb

The terminative converb is also present in all QG languages, but the variation is interesting. For Mongghul Todaeva gives Halchighol *-delā*, Naringhol *-delā/-derā*, Fulaan nura (= Karlong) *-delā*, *-delāŋge* (*-delā* + *ŋge* — singular marker), and *-daŋge* (Todaeva 1973: 134). However, according to Faehndrich, Karlong *-delā* is not accepted by speakers (Faehndrich 2007: 190), and she gives the form *-tala* instead (Faehndrich 2007: 170–171). Mangghuer *-tula/-tala* (Slater 2003a: 254–255), Baoan *-tala*, *-tələ*, *-təla*, *-dala* (gNyan.thog Baoan *-tala* has variants *-sala*, *-la*, Xiazhuang Baoan has *-səla*) (Chen and Chingeltei 1986: 226–227), Dongxiang *-tala* (Todaeva 1961: 51), SY *-tAlA* (Tenishev, Todaeva 1966: 71), Kangjia *-tala* (Sečenčogt 1999: 161). Actually, Baoan variants *-sala*, *-la*, *-səla*, as well as Karlong *-daŋge* might indicate that the converb affix **tala* was originally a composite affix, and in descendant languages we witness the reflection of some old composite variants.

Abtemporal converb

Halchighol *-sār*, Mangghuer *-sar* (Todaeva 1973: 134), Mangghuer *-ser* (Slater 2003b: 315). According to Faehndrich, (2007: 190) *-sār* is not accepted by the speakers of Karlong, and *-n* with reduplication is used instead. SY has *-sār/-gsār* (Bulchulu and Jalsan 1990: 282–283). Todaeva shows that Qinghai Baoan *-ser* is used without any restrictions (Todaeva 1964: 95), but Chen and Chingeltei (1986: 230–231) report that *-sər* is used only in Gansu Baoan and Xiazhuang subdialect of Qinghai Baoan exclusively within the construction *-sər* + verb *sū-* 'live, sit' (Chen and Chingeltei 1986: 230–231). This form is absent in Dongxiang and Kangjia.

Zero-marked converb

Rybatzki mentions a zero-marked serial converb as an important innovation confined to Gansu-Qinghai "attested at least in Shira Yughur, Mangghuer, Bonan, and Santa" (Rybatzki 2003: 383). Todaeva (1973: 127–128) also cites Mongghul examples, and Sečenčogt gives examples from Kangjia (Sečenčogt 1999: 164). Thus, this isogloss is valid for all QG languages.

Numerals

There are several patterns for deriving ordinal numbers from numeral stems: prefixes (Baoan *aŋ-*, *aŋgə-* from Tibetan, see Chen and Chingeltei 1986: 157–158; Mangghuer *di-*, see Todaeva 1973: 91, Dongxiang *ži-*, see Todaeva 1961: 36–37, Kangjia *ži-*, *di-*, see Sečenčogt 2002: 69; all three from Chinese 第 *dì-*), or affixes (Mongghul *-dar*, see Todaeva 1973: 91, Dongxiang *-da*, see Todaeva 1961: 36–37 < Common Mongolic **-duɣar*; SY *-cAAr* or *-rjAr*, see Nugteren 2003: 271–272 of unclear origin).

Table 12. Converbs in Qinghai-Gansu Mongolic

	Mangghuer	Naringhol	Halchighol	Karlong	SY	Baoan	Dongxiang	Kangjia
Reduplication of imperfective converb	–	–	–	–	+	–	+	+
Perfective converb	-danaŋ, -daGanan, -daGali	-wā, -wānu / -jā, -jānu	-ā(-ē, -ō), -ānu (-ēnu, -ōnu), -wā, -wānu	-ā, -ēd; completive -di	-ā, -ē, -ād, -ēd / -Gādu, -ādu	–	-də, -dənə	-da, -ʥida
Modal converb	-n	-n	-n	-n	-n	-ŋ,-jaŋ	–	–
Consecutive converb	-kula	-gula	-gulā	-gula	–	-gudʐi, -guma	–	-gʉ, -gʉma, -gʉda
Consessive converb	–	-sada	-sada	-sada	-sada	-sede	-seda	-sala
Terminative converb	-tala/-tula	-delā/-derā	-delā	-delā, -delānge -dange (?), -tala	-tAlA	tala, -tələ, -tələ, -dala, -sala, -la, -sələ	-tala	-tala
Abtemporal converb	-sar/-ser	–	sār	–	-sar/-gsar	-sər	–	–
Adding singulative marker to converbs	–	–	–	+	–	–	–	–

Several Qinghai-Gansu languages have borrowed Chinese numeral classifiers (Slater 2003a: 95–96; Faehndrich 2007: 135–136; Sečenčogt 2002: 70).

Table 13. Qinghai-Gansu innovations in numerals

	Mangghuer	Naringhol	Halchighol	Karlong	SY	Baoan	Dongxiang	Kangjia
Numeral prefixes (ordinal numbers)	di-	-dar	-dar	-dar	-cAAr/ -rjAr	aŋ-, aŋgə-	ǰi — -da	ǰi -
Numeral classifiers	+			+			+	+

Syntactic patterns

Causee marking in causative constructions varies: Halchighol uses ACC (for originally intransitive stems) and DAT.LOC (for originally transitive stems) (Todaeva 1973: 100–101); Karlong allows only Accusative in both cases (Faehndrich 2007: 182). In Naringhol the data are scarce, but there are at least examples of DAT.LOC marking for the causee (SM 1964: 20).

Mangghuer, according to Todaeva's records (Todaeva 1973: 100–101), only marks causee with ACC, and she underlines that this feature differentiates Huzhu Mongghul from Minhe Mangghuer, but Slater states that in Mangghuer causee receives accusative (for originally intransitive verbs) and dative (for originally transitive verbs) (Slater 2003a: 130). Kangjia (Sečenčogt 1999: 134), Dongxiang (Todaeva 1961: 41–42) and Baoan (Todaeva 1964: 72–73) also allow both dative and accusative marking. Shira Yughur demonstrates an alternative strategy with INS and DAT.LOC cases (Tenishev, Todaeva 1966: 64), which is more similar to Central Mongolic systems (see e.g. ACC, DAT.LOC and INS in Written Mongolian, Khalkha and Buriad, ACC and INS in Kalmyk).

Table 14. Causee marking in Qinghai-Gansu Mongolic

	Mangghuer	Naringhol	Halchighol	Karlong	SY	Baoan	Dongxiang	Kangjia
Causee marking	ACC/ DAT.LOC	ACC (?)/ DAT.LOC	ACC/ DAT.LOC	ACC	DAT.LOC/ INS	ACC/ DAT.LOC	ACC/ DAT.LOC	ACC/ DAT.LOC

Lexicon

A comparative analysis of the lexicon of QG languages, focusing on the percentage of borrowed and Common Mongolic etyma, is provided in Rybatzki (2003: 385–386). In this work V. Rybatzki claims that Mangghuer has only 39% of the native lexicon and thus "it is obvious that Mangghuer has suffered a massive loss of native vocabulary, making it, at least lexically, a good candidate for a 'mixed language'". Bonan (=Baoan) in his data demonstrates 50% of native vocabulary, Santa (i.e. Dongxian) has 56%, Monggul has 72%, and Shira Yughur has 77%.

Hattori (1959) and Kuzmenkov (1993) in their glottohronological studies on Mongolic lexicon considered Monguor to be a single idiom and did not use data from any other QG languages.

In our previous analysis (Gruntov, Mazo 2015) we scrutinized data for 110 basic lexical items from all Mongolic languages. It turned out that Mangghuer has 98% of common lexicon with Mongghul. Later we also analyzed the Leipzig-Jakarta list of 250 basic words for QG lan-

guages (unpublished) and found that 81% of the lexicon (76% if we eliminate all the borrowings) are still in common for Mangghuer and Mongghul. Thus, Mangghuer is lexically closer to Mongghul than to any other language, which is not surprising.

Shared innovations

We can summarize the previous data in the following table, showing the unique and shared innovations of Mangghuer, Halchighol, Naringhol and Karlong compared to other QG languages.

Table 15. Monguor innovations in Qinghai-Gansu languages

№	Innovation	Languages	Number of languages	Comment
1	-*kV* for the borrowed stems	Mgr, MN, MH, MK, SY, B, D	7	
2	reflex of Reciproc functions as both Reciproc and Cooperative voices	Mgr, MN, MH, MK, SY, D, K	7	
3	perspective	Mgr, MN, MH, MK, SY, B, K	7	
4	initial clusters allowed	Mgr, MN, MH, MK, SY, B, K	7	
5	**b > v*	MN, MH, MK, SY, B, D, K	7	
6	-*lV* for the borrowed stems	Mgr, MN, MH, MK, SY, D	6	
7	loss of resultative	Mgr, MK, SY, B, D, K	6	
8	indefinite article	Mgr, MN, MH, MK, B, K	6	
9	causee ACC/DAT.LOC	Mgr, MN, MH, B, D, K	6	
10	loss of 1st and 2nd poss.affixes	Mgr, MN, MH, MK, B, K	6	
11	**q > x*	MN, MH, MK, SY, B, K	6	
12	**hU > f*	MN, MH, MK, B, D, K	6	
13	concessive converb -*sVdV*	MN, MH, MK, SY, B, D	6	
14	**U > ə* in accented syllables	Mgr, MN, MH, MK, SY	5	
15	loss of prohibitive particle **bitügei*	Mgr, MN, MH, MK, D	5	
16	**-rb- > -r-*	MN, MH, MK, D, K	5	
17	**-d > r*	MN, MH, MK, B, K	5	
18	secondary long vowels	MN, MH, MK, SY, B	5	
19	**-m > -N*	Mgr, MK, D, K	4	
20	loss of unstable -*n* in Nom	Mgr, MN, MH, MK	4	
21	desiderative -*laCgi*	Mgr, MN, MH, MK	4	
22	adtemporal -*sVr*	Mgr, MH, SY, B	4	
23	numeral classifiers	Mgr, MK, D, K	4	
24	LOC -*rV*	MN, MH, MK, D	4	
25	merge of ACC/DAT 1Sg	MN, MH, MK, B	4	
26	perfective converb in -*VV*	MN, MH, MK, SY	4	
27	pluralis -*la*	MK, B, D, K	4	
28	**l > r*	Mgr, MN, K	3	
29	secondary vowel shortening	Mgr, D, K, B	3	Not all Baoan dialects demonstrate this secondary shortening

№	Innovation	Languages	Number of languages	Comment
30	*i> [ɿ] and [ʅ]	Mgr, D, K	3	
31	merge of ACC/DAT 2Sg	Mgr, MN, B	3	Only partly in Mangghuer
32	future -nV	Mgr, B, D	3	
33	Chinese ordinal number prefix	Mgr, D, K	3	Baoan borrowed ordinal number prefix from Tibetan
34	pluralis -sGV	MN, MH, MK	3	
35	future –m	MN, MH, B	3	
36	DAT.LOC -di	MH, MK, SY	3	
37	*-d > 0	Mgr, B	2	
38	-rV for the borrowed stems	Mgr, D	2	
39	DIR -dʑi	Mgr, MN	2	
40	copula shi	Mgr, D	2	
41	negative particle ī	MN, MK	2	
42	pluralis -ŋgu/ -ŋgula	MH, MK	2	
43	assotiative plurality -maŋge	MH, MK	2	
44	tonal opposition	Mgr	1	Baoan also has tonal opposition, but tones in Baoan and Mangghuer emerged independently, and it cannot be considered a shared innovation
45	*-r > ɚ	Mgr	1	
46	*-bC- > G	Mgr	1	
47	splitting of *ǰ /* č reflexes	Mgr	1	
48	-tu for the borrowed stems	Mgr	1	
49	comparative -her	Mgr	1	
50	non-past -la-Copula	Mgr	1	
51	tendency to increase number of clusters	MK	1	
52	tendency to decrease number of clusters	Mgr	1	
53	pronominal LOC -re	MN	1	
54	intensifier	MK	1	
55	Dualis	MK	1	
56	completive -di	MK	1	
57	singulative marker with converbs	MK	1	
58	causee ACC	MK	1	

Conclusions

These results can be quantified as follows:

Table 16. Number of shared and unique innovations in Monguoric languages.

	Mangghuer	Naringhol	Halchighol	Karlong	SY	Baoan	Dongxiang	Kangjia
Mangghuer	34	15	13	14	8	12	14	13
Naringhol		29	24	23	11	15	10	11
Halchighol			28	25	13	15	10	11
Karlong				36	13	14	13	14

If we count grammatical and phonological innovations separately, we get the following distribution:

Table 17. Distribution of phonological innovations

	Mangghuer	Naringhol	Halchighol	Karlong	SY	Baoan	Dongxiang	Kangjia
Mangghuer	12	3	2	3	2	3	3	5
Naringhol		9	8	8	5	6	3	6
Halchighol			9	9	6	6	3	6
Karlong				11	6	6	4	7

Table 18. Distribution of grammatical innovations

	Mangghuer	Naringhol	Halchighol	Karlong	SY	Baoan	Dongxiang	Kangjia
Mangghuer	22	12	11	11	6	9	11	8
Naringhol		20	16	15	6	9	7	5
Halchighol			19	16	7	9	7	5
Karlong				25	7	8	9	7

We used 58 isoglosses (20 phonetical and 38 grammatical) to study the differences between Monguoric idioms. The data show that the most innovative idiom is Karlong with 36 innovations, followed by Mangghuer (34 innovations). In addition, Karlong is equally distant from other QG non-Mongghul idioms, Mangghuer included. Mangghuer and Karlong are the most innovative idioms in respect to both phonology and grammar. However, as far as phonology is concerned, Mangghuer has developed many unique distinct features whereas phonetical change in Karlong is generally within the areal Tibetan-oriented phonology trend: Karlong has much fewer shared innovations in phonology with Sinitic-oriented Dongxiang and Mangghuer than with other QG languages.

As expected, Mongghul dialects demonstrate a high level of shared innovations (23–25 innovations), and they can hardly be considered separate languages. Mangghuer has more shared innovations with Dongxiang and Kangjia than with SY. Most probably, this is the result of significant Chinese influence on these three languages. On the contrary, the number of innovations shared between Mongghul and Shira Yughur is noticeably larger than the respective number between Mangghuer and Shira Yughur. However, phonological innovations account for most of the difference. Grammatically, Mangghuer is almost at the same distance from SY as Mongghul idioms, but its phonology is much more siniticized. It might be interest-

ing that the number of Mangghuer — Mongghul shared innovations is not as high (compared to Mangghuer — Dongxiang — Kangjia shared innovations) as one might have expected. However, shared innovations in grammar confirm that Mangghuer is still the closest relative of Mongghul.

Abbreviations

ABL — Ablative; ACC — Accusative; B — Baoan; CM — Common Mongolic; D — Dongxiang; DAT.LOC — Dative-locative; DIR — Directive; GEN — Genitive; IMPERF — Imperfective; INSTR — Instrumental; K — Kangjia; LOC — Locative; Mgr — Mangghuer MK — Karlong; MH — Halchighol; MN — Naringhol; NOM — Nominative; OBJ — Objective; PROL — Prolative; QG — Qinghai-Gansu; SG — Singular; SM — de Smedt and Mostaert; SY — Shira Yughur; SUB — Subjective.

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И. А. Грунтов, О. М. Мазо. Хуцзу, минхэ и их соседи: оценка степени языковой близости

Целью настоящей работы является оценка степени языковой близости различных монгольских идиомов в рамках языкового союза Цинхай-Ганьсу, при этом основное внимание уделяется языку минхэ и диалектам хуцзу. На основании 58 грамматических и фонологических совместных инноваций в области фонологии и грамматики авторы пытаются проанализировать основные направления и модели языковых изменений на территории региона.

Ключевые слова: языковой союз Цинхай-Ганьсу; языковые контакты; монгорские языки; минхэ; хуцзу; монгольские языки; совместные инновации; широнгольские языки.