

## On the Velar Stops in Intervocalic Position in Mongolian

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It is a well-known fact that the Written Mongolian  $\gamma$  (in back vocalic stems) and  $g$  (in front vocalic stems) in intervocalic position have disappeared in modern colloquial Mongolian languages in which long vowels (or diphthongs as in Dagur) correspond to Mo. (Written Mongolian) groups *aya*, *ege*, *aya*, *eyü*, etc., e. g., Mo. *qaya*- 'to close, to shut' = Khalkha (Kh.)  $\chi\ddot{a}$ -id.; Mo. *ayula* 'mountain' = Dag. *ayla* id., Kh.  $\ddot{u}$  id., etc<sup>1</sup>.

The Written Mongolian groups *aya*, *aya*, etc. reflect the ancient pronunciation. Although the intervocalic consonant  $\gamma$  ( $g$ ) is of diverse origin and has in many cases developed from \* $w$  < \* $b$  (and \* $p$ ), \* $\eta$ , and \* $y$ , it reflects in a number of cases the ancient voiced (or weak) velar stop \* $g$ . The latter can be easily reconstructed on the basis of Turkic and Tungus data. Here are some examples of Written Mongolian  $\gamma$  ( $g$ ) which goes back to a velar stop:

Mo. *doyari(n)* 'a sore on the spine of a horse', Kh. *dairi* id. = Sol. (Solon) *dagari* id.; Mo. *egem* 'collarbone', Buriat (Bur.) *em* 'shoulder, collarbone' = Sol. *egem* 'collarbone', Barguzin Ewenki (Ew. Ba) *egem* id.; Mo. *imayan* 'goat', Kh. *gamä* id. = Sol. *imayad* id., Ew. Ba. *imagan* id. = Uighur (Uig.) *imya* 'female of a wild goat'; Mo. *uur* < \**oyur* 'mortar', Kh. *ür* id. = Sol. *oyür* id., Ew. Ba. *ouur* id., Manchu (Ma.) *oyo* id.; Mo. *saya*- 'to milk', Kh. *sä*-id. = Sol. *saga*-id. = Chaghatai (Cha.), Osmanli (Osm.) *say*-id.; Mo. *šigü*- 'to examine, to investigate', Kh. *šü*-id. = Sol. *šigi*- 'to look attentively'; Mo. *tayru(n)* 'jay', Bur. *tšij* id. = Sol. *täru* id., Ew. *tägu* id.; Mo. *temegen* 'camel', Kh. *temä* id. = Sol. *temegög* id., Ew. Ba. *temegön* id.; Mo. *ünigen* < *ünigen* 'cow', Kh. *ünä* id. = Sol. *ünegög* id.; Mo. *žegerer(n)* 'antelope', Kh. *žer* id. = Sol. *žegerž* id.; Mo. *emogel* 'saddle', Kh. *emel* id. = Sol. *emegöl* id., Ew. Ba. *emegyn* id.; Mo. *güžege* 'stomach', Kh. *gugs* id. = Ew. Ba. *gudžig* 'stomach of an animal'; Mo. *žegün* 'left', Kh. *žüg* id. = Ewenki (Ew.) *žegin* 'left-handed', *žegitpü* 'left'; Mo. *töge* 'span', Kh. *tä*-id. = Ew. Ba. *toğori*- 'to measure by hand, by spans'; Mo. *ürägel* 'benediction, blessing', Middle Mongolian (MMo.) *hürä*-id., Kh. *yöröl* id. = Ew. Ba. *hürügen* 'blessing', Sol. *üräp*- 'to say a benediction'.

In all these cases the original consonant was really a velar stop, although in other examples Written Mongolian  $\gamma$  ( $g$ ) goes back to other consonants, e. g.

\* $p$ -. Mo. *köge*- 'to swell', Kh.  $\chi\ddot{a}$ -id., Mo. *kögürin* < \**köwörün* < \**köppürin* 'foam' = Ew. *kəpə*- 'to swell', *kəppən* 'swelling, tumor' = Ancient Turkic (AT) *köpäk* 'foam', Khakas (Kha.) *köp*- 'to swell';

\* $b$ -. Mo. *següder* < \**sewüder* < \**sebüder* 'shadow, shade', Kh. *süder* id. = Ma. *sebdri* < \**sebdüri* 'shadow';

\* $\eta$ -. Mo. *seger* < \**seper* 'vertebrae, vertebral column, mountain range', Kh. *šer* id. = AT *šäpür* 'promontory, salient'.

\* $y$ -. Mo. *tuyurai* < \**tuyürai* 'hoof', Kh. *türai* id. = AT *tuyuy* id.

In all these cases, no matter whether Mo.  $\gamma$  ( $g$ ) goes back to \* $g$  or another consonant, the intervocalic consonant has disappeared. It would be incorrect,

however, to say that Mo.  $\gamma$  ( $g$ ) in intervocalic position always disappears in colloquial Mongolian languages. As examples of \* $g$  which has not disappeared in Colloquial Mongolian may serve the following words:

Kh. *bagö* 'small' < \**baga* (but Bur. *bäyag* < \**bagäkan* 'small'); Mo. *šigü*- 'grove, forest', Kh. *šigui* id. = Ew. *šigi* 'bush, bushes', *šigüma* < \**šigüima* 'dense', *šigikög* 'wilderness'; Mo. *agui* 'vast, large', Kh. *agui* id. = Ew. *agi* 'open place, steppe, wild country', Ew. *aglän* 'steppe'; Mo. *žögi* 'bee', Kh. *žögi* id. = Ew. *žugiktš* 'bee, wasp', Lamut (Lam.) *žugot* 'wasp'; Mo. *abagaldan* 'mask of a shaman', Bur. *abagaldai* id. = Sol. *avagaldai* 'the mask of a shaman', Ew. Ba. *avagaldai* 'a shamanist god'; Mo. *bosoga* < \**bawurga* 'threshold', Kh. *bošog* id. = Ew. *bohogo* 'a mountain slope never illuminated by sun beams', Sol. *bošog* 'forest'; Mo. *qadagala*- 'to keep, preserve, save', Kh. *xadagala*-id. = Ew. Ba. *kadagala*- 'to hide, to lay away', Sol. *xadagala*- 'to save, preserve'; Mo. *qabaga* 'spoon', Kh. *qalwög* id. = Ew. *kalbaga* id.; Mo. *botogan* 'a young camel', Kh. *botogü* id. = Sol. *botog* id.; Mo. *ogotina* 'kind of prairie rat', Kh. *ogotin* id. = Sol. *oytina* id. = Mo. *üliger* 'saga, parable', Kh. *üliger* id. = Sol. *uliger* 'tale', cf. Sol. *üneggi* id.; Mo. *uqułža* 'wild sheep', Kh. *uqulžo* id. = Sol. *uqułži* < \**uqułži* < \**puqułži* id.; Mo. *buğu* 'deer, stag', Kh. *buğu* id. = Sol. *boyo* id. = Mo. *üge* 'word', Kh. *wge* id. = Sol. *wgg* id.; Mo. *bögöš* 'cramp-iron', Kh. *bögš* id. and 'sling at the end of the handle of a whip' = Cha. *bögüt* 'button'.

What is the explanation of this dual development of the intervocalic \* $g$  in colloquial Mongolian languages? VLADIMIROV believed that the disappearance of the intervocalic velar consonant had been the result of the transition of the ancient Mongols from the old society of forest dwellers and hunters to pastoral nomadism. In his opinion, those Mongolian tribes which had become nomads sooner than other tribes changed the forms with \* $\gamma$ - (\* $g$ -) to forms without this consonant, whereas tribes which remained hunters retained forms with the intervocalic consonant<sup>2</sup>. This theory is untenable as САНЖИЗЭВ has correctly pointed out<sup>3</sup>, because the disappearance or preservation of the intervocalic consonants can hardly be regarded as a result of transition to nomadism. The explanation of this process should be sought in the language itself. Comparison of colloquial Mongolian forms with and without  $g$  with corresponding forms in Solon leads to the conclusion that \* $g$  disappears before vowels which are long in Solon, whereas \* $g$  is preserved before vowels which are short in Solon, e. g., Mo. *imayan* 'goat', Kh. *gamä* id. = Sol. *imayad* id., but Mo. *buğu* 'stag', Kh. *buğu* id. = Sol. *boyo* id. Consequently, the disappearance and preservation of the consonant in question depends solely upon the original length or shortness of the vowel immediately following.

I call the position in which \* $g$  is preserved the strong position. Its opposite is the weak position, i. e., the position before a long or originally stressed vowel.

The consonant \* $g$  in weak position became a spirant (i. e., \* $\gamma$ ), and at a later time that spirant disappeared. The spirant \* $\gamma$  existed in Ancient Mongolian and disappeared in Middle Mongolian (i. e., after the XII century).

<sup>1</sup> The deep velar consonant is transcribed as  $g$  when it is retained in Colloquial Mongolian.

<sup>2</sup> B. YA. VLADIMIROV, *Sravnitel'naya grammatika mongol'skogo pis'mennogoazyky i xalkaskogo narechiya. Vvedenie i fonetika*. Leningrad 1929, p. 241.

<sup>3</sup> G. D. SANJIZEV, *Sravnitel'naya grammatika mongol'skixazykov*, t. I. Moskva 1953, p. 78.

The consonant \*g was a stop in strong position, i. e., (\*g in back vocalic stems, and g in front vocalic stems). It was a weak but probably unvoiced stop in Middle Mongolian and, therefore, it was rendered as g in back vocalic stems by Moslem authors. Here are examples of \*-g- > g in the dictionary "Muqaddimat al-Adab": *alagan* 'palm of the hand', Mo. *alagan* id., Kh. *alagyn* id. = Ew. Ba. *kaŋga* < \*kaŋ'ya < \*kaŋgis id., Ma. *ŋalayru* id.; *boŋaŋ/boŋaya* 'threshold', Mo. *boŋaŋ* id., Kh. *boŋoŋ* id. = Sol. *boŋoŋ* 'forest', Ew. Ba. *bohoŋo* 'the shady slope of a mountain'; *caŋqan/ŋayān* 'white', Mo. *caŋan* < *caŋayan* id., Kh. *caŋqān* id.; *qadaŋalaba* 'he preserved', Mo. *qadaŋala* 'to preserve', Kh. *qadaŋyil* id. = Sol. *qadaŋalā* 'to preserve'.

It should be pointed out that in Tungus (Solon, Ewenki, Lamut) borrowings from Mongolian, this Middle Mongolian q < \*g is rendered by g. This evidences to the fact that the consonant in question sounded like g to the borrowers. And it should also be remarked that the vowel immediately following this g is short in Solon. Thus, the conclusion can be drawn that \*-g- became a spirant before long vowels and disappeared, whereas it remained a stop before short vowels. Consequently, the dual development of \*-g- is due to different positions and not to the transition from hunting to pastoral nomadism as ВЛАДИМИРСОВ believed.

A careful examination of the examples of the preservation of the ancient g (g) which are found in ВЛАДИМИРСОВ's book<sup>1</sup> leads to the conclusion that in some of them the original intervocalic consonant was not even \*g but \*k. In other words, such examples do not prove what they are supposed to.

The intervocalic \*q (in back vocalic stems) and \*k (in front vocalic stems) are usually represented by q and k resp. in Written Mongolian<sup>2</sup>, but in some cases the strong consonant has developed into a weak one both in Written Mongolian and in some dialects. It is interesting that in Middle Mongolian, in such cases q and k correspond to Written Mongolian g and g resp. Moreover, a k is found also in Turkic and Tungus correspondences, no matter whether the words in question are borrowings from Mongolian or words of common origin. Thus, there is ample evidence that in some stems the intervocalic g (g) was a strong stop (*fortis*).

#### Examples

A. Mo. *ceige* 'father', Kh. *cege* id. = Ew. *giki* 'father-in-law', Lam. *giki* < \*etikei 'father-in-law, father of the husband, the elder brother of the husband' = Cha. *ütükä* 'uncle, tutor', Tatar (Tat.) *ütükä* 'daddy'; Mo. *abaga* 'the brother of the father', Leiden manuscript (L) *abaga* 'uncle' = Cha. *abaga* id., Yakut (Ya.) *abayā* < \*abaga id.; Mo. *geŋige* 'pigtail, queu', Kh. *geŋge* id. = Sol. *geŋgeŋ* 'the occupant', Ew. Ba. *geŋ'ken* id.; Mo. *örmöŋö* 'coarse cloth made of camel wool', Kh. *örmöŋö* id. = Kazakh *örmök* id.; Mo. *gölige* 'cub, whelp, pup', Kh. *gölige* id. = Hungarian *kölgyök* < Proto-Turkic \*köl'äk, Oem., Cha. *köbük* 'young animal, young camel'; Mo. *iŋge* 'kid', Kh. *iŋge* id. = Uig. *ätkü* 'goat'.

B. Mo. *ebügen* 'old man', Kh. *ebügen* id. = Dag. *swük* 'elder brother of the mother, husband of the elder sister of the father'; Mo. *udagan* 'shamaness', Kh. *udagyn* id., Bur. Alar *od'ogor* id. = Ew. Ba. *idokon* id., Mo. *elügen* 'donkey', Kh. *ülügen* id. > Sol. *elüg* id., cf. Ma. *eizen* < \*el'gen < \*elügen < Mongol. = Cha., Osm. *dök* 'donkey'; Mo. *quagan* 'lamb', Kh. *qurugyn* id. = Ew. *kurkän* id.; Mo. *emegen* name of an idol = Ew. *hemegen* a wooden idol; Mo. *unagan* 'foal', Kh. *unagyn* id. =

<sup>1</sup> Op. cit., p. 222-230.

<sup>2</sup> PORFF, op. cit., p. 135-139, 143-146.

Ew. Ba. *unükän* 'a one-year old foal'; Mo. *dorogon* 'badger', L. *dorgan* id. = Ew. *dorokön* id.; Mo. *nigen* 'one', Kh. *neŋe* id., Middle Mongolian (MMO.) *niken* id., Dag. *ngög* id.; Mo. *nüdügin* 'naked', Kh. *nucogeyn* id., MMO. *nüdüken* id., Dag. *niččö* id. = Ew. *nucabin* id.

C. Mo. *ŋigaruŋ* 'fish', L. *ŋigaruŋ* id., Mu. *ŋigaruŋi* (acc.) / *ŋiyaruŋ* 'fish', Kh. *ŋagys* < \*ŋirgaŋuŋ, cf. *ŋirmagai* 'fry' = Ma. *nimaya* < \*ŋirmagai 'fish'; Mo. *sagaldurqa* 'chin-strap', Kh. *sagaldırıg* id. = Kaz. *sayaldırıg* 'chin-strap'; Mo. *qudurqa* 'tail-strap of a horse harness', Kh. *qudurqyn* id. = AT *qudurq* 'tail', Ya. *kuturuq* id.; Mo. *nidurqa* 'clenched fist', Kh. *nudurqo* id., Mu. *nudurqa* id. = Altai (Alt.) *yudruq* id., Sagai (Sag.) *nuruq* id.; Mo. *kürgen* < \*kürken 'son-in-law' = Sol. *xwergę* id.; Ew. *kuręken* id.; Mo. *ququŋququ* < \*kükü 'ear-wax, cerumen', *qu-qubici* < \*küküqiti 'a cap or hood which also covers the ears' = Chuvash *çükçük* < \*quŋaq < \*quŋaq 'ears', AT *quŋay* id.

D. Mo. *doŋulay* 'lame', L. *doŋulay* id., Mu. *doŋulan* id., Bur. *doŋol* 'to be lame' = Sol. *doŋul* 'to limp, to be lame', Ew. *dokolok* 'limping, lame'; Mo. *bügütür* 'hunch-backed', Kh. *buŋgater* id. = Cha. *bükteri* 'bent, wry'; Mo. *qagal* 'to split', *qagas* 'A.F. Bur. *qaxal* 'to split', Bur. *qaxad* 'half'; Mo. *teŋis* 'complete', Kh. *tögös* id. = AT *tüküti* 'completely'; Mo. *egeci* 'the elder sister', Kh. *egeci* id. = Ew. *gkin* 'the elder sister', Ew. Ba. *gkę* id.; Mo. *tugul* 'calf', Kh. *tugul* id. = Ew. Ba. *tukükän* 'a one-year old calf', Sol. *tuxač* id. Mo. *toŋuriyru* 'crane', L. *toŋaraŋaun* id., Kh. *tugrü* id., Bur. *tuyfuy* id. = Ew. *tokorow* 'crane'.

From the examples given above the conclusion can be drawn that the ancient \*-q- and \*-k- have resulted in Written Mongolian g and g respectively in the final open syllables *qa* and *ke* resp. in trisyllabic stems, e.g., Mo. *ecige* < \*etike 'father' = Ew. *giki* 'father-in-law' = Cha. *ütükä* 'uncle' (A). The same development has occurred in the endings \*-gan/\*ken and \*-qun/\*kin in Mo. *ebügen* < \*ebükän 'old man', Mo. *udagan* 'shamaness', Mo. *nüdügin* < \*nüdükün 'naked', etc., and in Mo. *nigen* < *niken* 'one' (B). In the latter example, i.e., in *niken*, this development is due to analogy.

Further examination leads to the conclusion that the consonant q (k) immediately preceded by r or l has resulted in Mo. g (g resp.), e.g., Mo. *qudurqa* < \*qudurqa 'tail-strap' = AT *qudurug* 'tail', Mo. *kürgen* < \*kürken 'son-in-law' = Ew. *kuręken* id.; Mo. *qugu* 'cerumen' = AT *quŋay* 'ear', Özbek *quŋaq* id. This development occurs also in such cases in which the consonant \*r (in \*rq or \*rk) has disappeared, e.g., Mo. *ŋigaruŋ* < \*ŋirgaŋuŋ 'fish' (C).

The most difficult cases are those listed under D. In some of them, the vicinity of the consonants r and l may be responsible for the development \*q > g and \*k > g, e.g., Mo. *doŋulay* 'limping, lame', *qagal* 'to split', *tugul* 'calf', *toŋuriyru* 'crane'. No satisfactory explanation can be given, however, to Mo. *egeci* < \*eketi 'elder sister', Mo. *teŋis* 'complete', Bur. Aga *xüŋgen* 'child' = Mo. *keükän* id., and some other words which are few in number.

The general conclusion is that \*-g- disappears in weak position and is retained in strong position. The intervocalic consonants g and k remain as such in Written Mongolian in all positions with the exception of the final syllable *qa* (*ke*) in trisyllabic words. The consonants q and k have also developed into g and g resp. in the endings \*-gan/\*ken and \*-qun/\*kin, immediately after r and l, and in the vicinity of the latter. Finally, they have resulted in g and g resp. in a few stems under conditions which are not quite clear.