

ON THE STRUCTURE OF ALTAIC ECHOIC  
VERBS IN {-KIrA}

BY

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... on oγ(u)r (e)lintä budap(ä)št ul(u)š  
bod(u)nta lig(ä)ti ätl(i)γ ul(u)γ bilgä b(a)qš  
s(ä)k(i)z on y(a)š(a)yur (ä)rm(i)š... Quntl(u)γ  
bolzun ... t(ä)ri y(a)rlġ(a)zun t(a)ql y(i)mä  
küüö birzün... bit(i)g bitiyü bil(i)gin y(a)da  
tir(i)g (ä)s(ä)n ol(u)rzun ...

As is known, there is a rather large group of echoic verbs in Turkic ending in *-qir-*, *-kir-*, etc. and expressing shouting, roaring, bellowing and the like: Uig. *ayqir-* «to shout out, cry out», MK *baqir-* «to shout, yell, cry out», Osm. *çayir-* «to call, invite», MK *käkir-* «to belch», QB *qaqir-* «to expectorate», Tefs. *tüfkür-* «to spit out», MK *üşkir-*, *üşkür-* «to whistle, hiss», etc. etc.

Alongside such verbs which are obviously derived from interjections and onomatopoeic words, there is also a comparatively small group of echoic verbs ending in *-gra-/-krä-* and having similar meanings: MK *çoqra-* «to boil, bubble up noisily», *çoqrat-* (caus.), Uig. *çoqurat-* id., MK *kükürä-* «to roar, bellow; to thunder», MK *oqra-* «to whinny (of a horse)», Tat. *siqra-* «to ache, suffer sharp pain», etc.

Turkic echoic verbs belonging to these two groups display a striking similarity, both in form and meaning, to the Mongolian echoic verbs in *-kira-/-kire-*. Observe the following correspondences:

Mongolian	Turkic
<i>arkira-</i> «to growl, snarl»	<i>aqir-</i> «to roar, bellow, cry out»
<i>barkira-</i> «to shout, cry, yell»	<i>baqir-</i> ~ <i>baqra-</i> id.
<i>čirkire-</i> «to make noise, scream»	<i>čiqir-</i> , <i>čiyir-</i> «to scream»
<i>čorkira-</i> , <i>čurkira-</i> «to howl, roar»	<i>çoqra-</i> «to boil, bubble up noisily»
<i>kekere-</i> «to belch» < * <i>kekire-</i>	<i>käkir-</i> id.
<i>kürkire-</i> «to growl, snarl; to roar»	<i>kükürä-</i> «to roar; to thunder»
<i>orkira-</i> «to roar, grogl»	<i>oqra-</i> «to neigh, whinny»
<i>sirkira-</i> «to feel pain, to ache»	<i>siqra-</i> id.

In spite of this remarkable resemblance between the Turkic and Mongolian echoic verbs, however, Turkologists have not paid much attention so far to the Mongolian forms. Instead of considering the Turkic and Mongolian verbs together, they have rather tried to explain the Turkic echoic verbs in question independently from their Mongolian counterparts. As a result of this, the Turkic echoic verbs in {-KIr-} and {-KrA} have not yet been explained satisfactorily and their relation to the Mongolian echoic verbs in {-kirA-} has not yet been clarified. In this paper, I will try to do this. But before going into a discussion of such verbs, I would like to summarize briefly what have been said so far on the structure of the echoic verbs in question.

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As far as I know, Ramstedt was the first to deal with the Turko-Mongolian echoic verbs in *-gira-*, *-kira-* (his formulation) and to put forward a theory on their structure (1912). According to him, Turko-Mongolian *-gira-*, *-kira-* is a compound suffix consisting of the elements *-gi-/ki-* and *-ra-* (1912: 36). Ramstedt identified the element *-ra-* as Mo. *-ra-* of «middle verbs», or to use his term, «verbum neutrale» or «inchoativum» (ibid.). As for the first element of the compound, i.e., the element *-gi-/ki-*, he did not make any comment on it in this chapter, but further down in his study, in the chapter dealing with the suffix *-gi-/ki-*, he meant to say that the element *-gi-* could be identical with the Mo. verb *ge-* «to say» (1912: 55), and the *-ki-* of *-kira-* with the verb *ki-* «to make» (1912: 56). As is seen, this early analysis of the suffix {-KirA-} by Ramstedt is a very convincing one. Unfortunately, however, Ramstedt did not repeat or confirm this view of his in his later works. Even in his article dealing specifically with the Altaic echoic verbs, he did not further analyze the suffix *-kira-* (1948: 110). It is very probable that Ramstedt abandoned his views as to the structure of the suffix {-KirA-}, especially after he had seen Bang's article on the Turkic echoic verbs in *-qir-/kir-*, etc. (1919). But even if it were so, we would at least expect him to distinguish clearly between the Turkic and Mongolian forms. As is known, Ramstedt does not usually make any distinction between the Turkic and Mongolian echoic verbs formed with the suffix {-KirA-}, and in his Altaic comparisons he often cites the examples looking very much like Mongolian as genuine Turkic forms, e.g., Kirg. *barqira-* «anschreien, schreien reden», Uig. *kürkürä-* «donnern», Kirg. *širkirä-* «zirpen», etc. (1912: 36, 37; 1948: 110). As will be seen below, such «Turkic» forms could only be regarded as loanwords borrowed from Mongolian.

A second theory on the structure of the Turkic echoic verbs in {-KIr} was put forward by W. Bang, the founder of Turkic comparative studies (1919). After investigating such verbs rather thoroughly, Bang came to the conclusion that the Turkic echoic verbs in *-qir-/kir-*, etc. were formed from onomatopoeic words with the suffix *-yur-/gür-*, i.e., the suffix of the factitive (causative)

stems (1919: 12). As for the suffix *-qira-/kirä-*, etc. in verbs like Kirg. *barqira-* «to shut out», Bar. *qoryira-* «to snore», Tat. *čirqira-* «to chirp, twitter (of a sparrow)», etc., Bang contented himself only by saying that the relation between *-qir-* and *-qira-* was obvious and many monosyllabic stems ending in a consonant today originated from ancient dissyllabic stems terminating in a vowel (1919: 20).

Although it has not been criticised and refuted so far, Bang's theory is unsound both phonetically and semantically: 1. The vowel of the causative suffix *-yur-/gür-* is rounded, whereas that of the echoic verbs in *-qir-/kir-* is originally an unrounded narrow vowel (examples like MK *bürkür-* «to spurt out, gush out», *üškür-* «to whistle, hiss», Tefs. *tüfkür-* «to spit out», etc. are all secondary, going back to older forms like *bürkir-*, *üškir-*, *\*tüwkir-* etc.); 2. Turkic echoic verbs in *-qir-/kir-* and *-gra-/krä-* do not have causative meanings; in fact, it is only natural for such verbs to be intransitive.

Bang is right in his view that the final vowel of *-qirq-/kirä-* is not a morpheme, i.e., the suffix *-qira-/kirä-* is only an archaic form of *-qir-/kir-*. But his view that the forms like Kzk. *barqira-* «to shout, yell», Kirg. *qorqura-* «to snort», etc. are genuine Turkic forms cannot be accepted. Such verbs are obviously loanwords borrowed from Mongolian as will be seen below.

An interesting theory on the structure of Turkic echoic verbs in {-KIr-} was put forward by the late E. V. Sevortyan (1962). The Soviet scholar held the view that the suffix *-qir-/kir-* is originally a combination of the deverbal nominal suffix *-qi* and the denominal verbal suffix *-r-*, i.e., the suffix {-(A)r-} of *äskir-* «to become old or worn out» (< *äski* «old»), etc., e.g., Khak. *xatxir-* «to laugh aloud» < *xatxi* «laughter», *xisxir-* «to shout, yell, cry» < *xisxi* «shout, cry», Shor *qiyir-* «to shout, cry» < *qiyi* «shout, cry» (1962: 264). Being aware of the weakness of his theory, Sevortyan maintained that although the suffix *-qi* of the nouns *xatxi*, *xisxi* and *qiyi* is a deverbal nominal suffix originally, it is added, in these words at least, to the nominal roots (ibid.).

Sevortyan's theory, though interesting, cannot be accepted for the following reasons: 1. The suffix {-GI} of deverbal nouns of today had the shape {-GU} in Old and Middle Turkic, whereas the suffix of the echoic verbs under discussion was with (i) or (i) (Uig. *ayqür-*, *qiqür-*, MK *birqür-* «to snort», QB *bürkir-*, *büwkir-*, etc.); 2. a deverbal nominal suffix could not be added to simple onomatopoeic words; 3. the meaning of the denominal verbal suffix {-(A)r-} is «to become», whereas that of an echoic verb in {-KIr-} is «to make or produce a particular sound».

Sevortyan's examples brought to support his theory, i.e., Khak. *xatxi* «laughter» (also Tuv., Alt., Kirg., etc. *qatqi* id.), *xisxi* «cry» (also Tuv. *qışyi*, Alt. *qışqi* id.) and Shor (also Tuv., Alt., etc.) *qiyi* «cry, shout» are all in fact back-formations extracted from the verbal stems *qatqür-*, *qicqür-* and *qiyir-* (< *\*qicqür-*), respectively. The final /r/ of such verbs was probably taken for the common denominal verbal suffix {-(A)r-} seen, for example, in verbs like *äskir-* «to

become old», *yañir*-«to become new», etc. Tuv. *alyi* «shout, cry» (cf. *alyir*- «to shout, cry» < \**aryir*- < \**arqir*- = Common Turkic *aqir*- id.), *bilyi* «snort» (cf. *bilyir*- «to snort» < MK *birqir*- id.), *siyi* «whistle» (cf. *siyir*- «to whistle» < MK *siqir*- id. < \**siqir*-), etc. too must be back-formations. In this connection, it should also be noted that Khak. *xatxir*- «to laugh heartily» (< MK *qatxur*- id.) is not an echoic verb in {-KIr-}, but it is the causative stem of the verb *qat*- «to become hard and solid» (cf. Turkish *katıla katıla gül-* or *katılcasına gül-* «to split one's sides with laughter», Chuv. *xittän kul*- id. < \**qatïyin kül*-, etc.).

Räsänen 1969 offers a rather simple morphological analysis for Turkic echoic verbs in {-KIr-}, e.g., *bakir*- «laut schreien, rufen» < *bā* + onom. suffix *-kir*- (1969: 58), *čakir*- «herbeirufen, anrufen» < *čā* + onom. suffix *-kir*- (1969: 96), etc. Räsänen's theory goes well as far as echoic verbs like *qiqir*- are concerned (cf. MK *qī* interj. of address, Kirg. *qiy* «sharp cry, shout, yell», etc.). But interjections like \**bā*, \**čā* have not so far been attested in Turkic. Besides, Räsänen's theory does not explain the structure of the suffix {-KIr-}.

The most recent theory on the structure of Turkic echoic verbs in {-KIr-} is the one put forward by A. M. Shcherbak (1971). The Soviet scholar claims that such verbs originated from expressions formed with the verb *ur*-/*vur*- (< \**ūr*-) «to hit, strike», e.g., Trkm. *garq ur*- «to cough severely», *hiŋ ur*- «to growl, snarl (of dogs)», etc. (1971: 9, 10). As for the final vowel of echoic verbs like Kirg. *barqira*- «to roar, bellow», *qorqura*- «to snort» Yak. *bakkirā*- «to cry aloud», etc., Shcherbak regards it, following L. N. Kharitonov (1954: 188) and Sevortyan (1962: 263), as a suffix expressing the prolongation or continuation of the action.

Though interesting, Shcherbak's theory too is far from being sound and satisfactory. First, the verb *ur*- has a rounded vowel, whereas the suffix {-KIr-} of echoic verbs has an unrounded narrow one' (see above). Consequently, had these verbs been formed with the verb *ur*- «to hit, strike», the vowel of their second syllable would have been *u*, not *ī* or *i*. Secondly, if we accept Shcherbak's theory, we must then assume that verbs like *ayqir*-, *qičqir*-, *uškir*-, etc. are derived from interjections or onomatopoeic words like \**ayq*, \**qičq*, \**ušk*, etc., which, because of their unusual consonant clusters, could not be regarded as Turkic.

Finally, before concluding this chapter of introductory remarks, I also would like to say a few words on the late Sir Gerard Clauson's views on the structure of our echoic verbs. As is known, Clauson does not usually give any etymologies for such verbs in his «etymological» dictionary (1972). Occasionally, however, he attempts to analyze such verbs, but mostly without much success. Thus, while he tries to establish an etymology for MK *bürkür*- «to spurt out, gush out» (cf. QB 4892 *bürkir*- id.), he confuses this verb with its homonym MK *bürkür*- «(for sky) to grow cloudy, to become dark or gloomy» (*DT'S* correctly distinguishes between these two separate verbs). The etymology Clauson gives

for *kükrä*- (he writes *kökrä*-) is also wrong: MK *kükrä*- «to roar, bellow; to thunder» cannot morphologically be connected with *kök* «sky» as he believes (1972: 713); it is an echoic verb in {-KIrA-}, a variety of {-KIr-}, and its root is the onomatopoeic word \**kür* originally (see below).

As we have seen clearly, none of the theories put forward on the structure of Turkic echoic verbs in {-KIr-} seems to be sound and satisfactory. Ramstedt did not verify or confirm his early views as to the structure of the suffix *-gira*-, *-kira*- in his later works. Among the theories mentioned and discussed above, only Räsänen's view seems to be correct as far as the structure of certain echoic verbs is concerned. His analysis, however, is not much of an explanation, because he does not analyze the suffix {-KIr-}, i.e., the most important and puzzling part in the structure of such echoic verbs.

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How could and should, then the Turkic echoic verbs in {-KIr-} and the suffix itself be analyzed? In my opinion, the answer to this question lies in the echoic expressions found in the languages related to Turkic, i.e., in Mongolian and Manchu-Tungus. In Mongolian there are many expressions consisting of an onomatopoeic word and the verb *ki*- «to do, to make, to produce», e.g., *čer ki*- «to chirp, crackle» (lit. «to produce the sound *čer*), *bur bur ki*- «to gurgle, bubble» (descriptive of boiling, bubbling or gurgling), *čor čor ki*- «to be noisy, make noise» (*čor* «hubhub, uproar»), *tüs tüs ki*- «to make a crashing sound», *qur ki*- «to snore» etc. It is very remarkable that in Yakut too such echoic expressions are formed with the verb *gin*- «to do, make» (= Common Turkic *qil*-) as well as *diä*- «to say», e.g., *lis gin*- «to produce the sound *lis*» (imitation of the noise of heavy objects), *tis gin*- «to produce the sound *tis*» (imitation of a slight sound), etc. (Kharitonov 1954: 153), *bar gin*- «to make an unexpected noise», *kür gin*- id., *sir gin*- «to make a whistling sound», etc. It should be noted that such Yakut-expressions correspond perfectly to Mo. echoic verbs in {-ginA-}, e.g., *qang-gina*- «to sound, ring, resound», *künggine*- «to make a hollow sound», etc. In my opinion, Yakut *gin*- «to do, make» is cognate to Mo. suffix *-gina*-/*-gine*- both going back to Altaic \**kina*-, i.e., the reflexive stem of \**kī*-.

It seems that in Mongolian, in older expressions of the type *qur ki*- «to snore», the initial *k* of the verb *ki*- became voiced after a vowel or *r*, thus yielding the suffix *-gi*- of such echoic verbs as *bargi*- «to produce a hoarse sound» < \**bar ki*-, *čargi*- «to make a harsh sound, to rattle» < \**čar ki*-, *čuvugi*- «to make noise, to shout» < *čuu ki*- (*čuu* «sound, noise»), *turgi*- «to snort (of horses)» < *tur ki*-, etc. After a voiceless consonant, however, the phoneme /k/ of *ki*- preserved itself as such, e.g., *čiski*- «to chirp, twitter» < *čis ki*-, *tüski*- «to make a crashing sound» < *tüs ki*-, \**bis-ki*- «to blow, blow out» in *biskigür* «flute» < \**bis ki*- (= Turk. *püskür*- «to blow out» < \**biski-r*-), etc.

It should be noted that these simple echoic verbs in Mongolian have their counterparts in Turkic and Manchu-Tungus. Most of the Yakut echoic verbs in {-KIy-} are probably loanwords borrowed from Mongolian as Kalużyński maintains (1962 : 99, 100), e.g., *barġiy-* «to growl, roar, bellow» (Mo. *bargi-* «to produce a hoarse sound»), *čanjġiy-* «to cry piercingly» (cf. Klm. *tsānki-* «to rattle, jingle»), etc., but some of them look like genuine Yakut, i.e., Turkic formations, e.g., *arġiy-* «to roar, bellow, cry, shout» < \**arġi-* < \**arkī-* (cf. Alt., Tuv. *alyir-* id. < \**arqir-* < *arqī-r-*), *kiskiy-* «to whistle» < \**kički-* < *kič-kī-* (cf. Tat., etc. *qičqir-* «to shout, cry, scream» < *qičqī-r-*), etc. Anyhow, echoic verbs in {-KI-} are found in the other Turkic languages, both old and modern. Observe the following examples :

MK *birqi-* «to snort» in *birqiy* «snort», simplex of MK *birqir-* «to snort» ; survives in NUig. *purqu-* id., *purquš* «snort», etc. < \**bir qī-*

NUig. *pürkū-* «to spurt out, gush out», *pürkā-* id. < \**bürki-*, simplex of QB *bürkir-*, MK *bürkür-* id. ; survives in many languages : Kzk., Kirg., etc. *bürk-*, Tat., Bšk. *börk-*, Trkm. *pürk-*, NUig. (dial.) *pürk-*, etc. < \**bürki-* < *bür ki-* (= Mo. *bürgi-* «to be scattered», Kh. *bürge-* id.)

Az. *öyü-* «to feel like vomiting» < \**öki-*, Trkm. *öge-* id. < \**öki-* id., simplex of Osm. *öğür-* «to retch, belch» < \**ökir-* < *öki-r-*, etc.

Echoic verbs in {-KI-} are found abundantly in Manchu-Tungus : Ma. *čarki-* «to rattle together», *ġorgi-* «to chirp, twitter», *turgi-* «to clean the nose ; to snort (of horses), Evk. *burgi-* «to flow with a splashing noise», *čirgi-* «to chirp, twitter», *kiŋgi-* «to sound, ring», *simki-* «to cough» (cf. Trkm. *sümgür-* «to expel mucus from the nose» < \**simki-r-*), *kergi-* «to snort» (cf. Ma. *xer* sound of snoring), *sirgi-* «to make a clattering noise», *uŋki-* «to cry, weep», Nan. *nirgi-* «to thunder», etc.

To these simple echoic verbs in {-KI-} later on the suffix {-rA-} of *verba media* must have been added in Proto-Turko-Mongolian, if not in Proto-Altaiic: Mo. *arkira-* «to growl, snarl» (cf. Yak. *arġiy-* «to roar, bellow» < \**arkī-*), *barkira-* «to cry, shout, yell» (cf. Mo. *bargi-* «to make a hoarse sound», Yak. *barġiy-* «to growl, roar, bellow» < \**barkī-*), *dargira-* «to rush with noise (of water)» (cf. Mo. *dargi-* id.), *kürkire-* «to growl, grunt, snarl ; to roar (as a waterfall)» (cf. Mo. *kürki-* «to make noise, talk nonsense», Yak. *kür ġin-* id., Trkm. *ğürle-* «to thunder», Nan. *xurġi-* «to make noise», etc.), etc.

The new suffix {-KIra-} did not change much in Mongolian ; with the palatalization of [i] and [q] the allomorph [-qira-] became [-kira-], e. g., \**barqira-* > *barkira-*, etc. In Turkic, on the other hand, {-KIra-} developed into the following forms :

1. With the regular loss of its final vowel it became {-KIr-}, i.e., *-qir-* and *-kir-* (in most cases) ;

2. with the loss of the vowel of its first syllable it resulted in {-Kra-} (after some onomatopoeic roots ending in a vowel or /r/).

At this point, it would be appropriate to speak of one more sound change which apparently took place before the loss of the final (first case) or medial (second case) vowel of the suffix {-KIra-}. This sound change is the loss of the final /r/ of the onomatopoeic root.

As it has already been noticed, most of the onomatopoeic words from which Mo. echoic verbs in {-kirA-} are formed end in /r/ : *ar-kira-*, *bar-kira-*, *čir-kire-*, *čur-kira-*, *kür-kire-*, *or-kira-*, *sir-kira-* / *sir-kire-*, *qur-kira-* «to snore», etc. Many of these onomatopoeic words still occur as such in Mongolian and in the other Altaic languages : Bur. *bar bar dūgar-* «to growl, snarl», Osm. *bar bar bayir-* «to shout loudly», Ma. *čar čir* sound of meat sizzling, *ker* sound of a belch, *kur* (< \**kür*) sound made by tigers, *or* id., etc. It seems that the final /r/ of such onomatopoeic roots was lost before the affix {-KIra-} in Proto Turkic. As a result of this, the preceding vowel became long (secondary length). This is evident from the Turkmen forms of such verbs which still preserve their long vowels and from the voicing of the originally voiceless velar of the suffix in the Oghuz group in general. Observe the following examples :

Tefs. *aqir-* «to roar, bellow», Kzk., Kirg., etc. *aqir-* id., Osm. (TS) *ayir-* id. < \**aqir-* < \**arqir-* (cf. Tuv., Alt. *alyir-* id. < \**aryir-* < \**arqir-*)

~ Mo. *arkira-* «to growl, snarl», Kh. *arxira-* id. ; Kirg. *arqira-* id. < Mo. (for the root cf. Trkm. *ar-la-* «to cry or shout loudly, Yak. *ar diä-* «to low, bellow», *arġiy-* «to cry loudly» << \**arkī-*, i.e., *ar kī-*, Ma. *ar* the sound of calling or shouting, etc.) (Tekin 1976 : 235, Tekin 1977 : 42)

MK *bāqir-* «to shout, yell ; to bellow», Kzk., Kirg., etc. *baqir-* id., Osm., Az. *bayir-* id. < *bāqir-*, Trkm. *bāyir-* (~ Tefs. *baqra-* id., NUig. *waqira-* id.) < \**bāqira-* < \**barqira-*

~ Mo. *barkira-* «to shout, cry, yell», Kh. *barxira-*, *baxira-* id. ; Kirg. *barqira-* id. < Mo., Yak. *bakkirā-* id. < Mo. (for the root cf. Osm. *bar bar bayir-*, Yak. *barila-* «to make noise» < \**bar-la-*, Yak. *barġiy-* «to roar, bellow» < \**barkī-* < *bar kī-*, *bar ġin-* «to make a big noise», etc.) (Tekin 1976 : 235, Tekin 1977 : 42)

MK *čaqir-* «to call out, shout» in *čaqrış-* (rec.), Kirg., etc. *čaqir-* id., Osm., Az. *čayir-* id. < \**čaqir-*, Trkm. *čayir-* «to call, invite» < \**čaqir-* ~ NUig. (dial.) *čaqra-*, *čaqira-* < \**čaqira-* < \**čarqira-* (Tekin 1976 : 235, 1977 : 42—43)

~ Mo. \**čarkira-* in Kirg. *čarqira-* «to shout, cry, yell», Yak. *čakkirā-* «to flow noisily (of running water)», etc. ; for the root cf. Mo. *čar* «the sound of voice ; cry, clamour, noise», MK *čarla-* «to cry loudly ; to roar», Chag. *čarla-* «to call, invite», etc.

Kirg., etc. *čiqir-* «to cry, yell scream», Osm., Az. *čiyir-* id. < \**čiqir-*, Trkm. *čiyir-* «to scream, cry piercingly» < \**čiqir-*

~ Mo. *čirkire-* «to make noise, scream», Kirg. *čirqira-* «to cry piercingly» < Mo., Tat. *čirqira-* «to chirp, twitter (of sparrows)» < Mo., Yak. *čikkirā-* «to

flow with a splashing noise (of water)  $\dot{l}$  < Mo. (for the root cf. also Yak. *čirila*-id. < \**čir-la*, Trkm. *čirila*- «to scream», etc.) (Tekin 1977: 43)

MK *käkir*- «to belch», Kzk., Kirg. etc. *kükir*-id., Osm. *gägir*-id., Az. *gäyir*-id., Trkm. *gägir*-id. < \**käkir*-

~ Mo. *kekere*- «to belch, eruct», Kh. *xexre*-id. < \**kekire*- < \**kerkire*-; cf. Mo. *kerfigine*- «(for the stomach) to growl» < *ker-figine*-, Ma. *ker* the sound of a belch, etc. (Tekin 1977: 43)

Tuv., Alt. *oyur*- «to roar, bellow», NUig. *oyur*- «to moo» < \**öqur*- < \**öqir*- ~ MK *oqra*- «to whinny», Kirg. *oqura-n*-id. < \**öqira*- < \**orqira*-

~ Mo. *orkira*- «to roar, bellow, bawl», *urkira*-id., Kh. *urxira*-id. (for the root cf. MK *orila*-, *orla*- «to shout out», Khak. *orla*- «to roar, bellow», Yak. *orulä*-id.; Ma. *or* the sound made by tigers) (Tekin 1977: 43-44)

QB (4113) *qaqir*- «to expectorate», Kirg., etc. *qaqir*-id., Osm. (TS) *qayir*-id. < \**qäqir*-, Trkm. *gäyir*-id. < \**qäqir*- < \**qarqir*- (cf. Bar. *qaryir*-id.)

~ Mo. *qakiru*-, *qakir*- «to expectorate», Kh. *xaxira*-id. < \**qarkira*-; cf. Mo. *qar* the sound of friction, crushing or crunching, *qarfigina*- «to make a crackling sound», Tuv. *qaryira*- «to make a rumbling throaty sound» < Mo., Yak. *xar* the sound of phlegmy cough, *xarilä*- «to growl» < \**qar-la*-, etc.

As is seen, the final /r/ of the onomatopoeic words is dropped occasionally also in Mongolian, both Classical and Modern, e.g., *kekere*- < \**kerkire*-, Kh. *barxira*-, *baxira*-, etc. (Cf. also Mo. *qurkira*-, *quukira*- «to snore», Kh. *xurxira*-, *xuxira*-, etc.).

In some of the Turkic echoic verbs in {-KIr-}, the final /r/ of the onomatopoeia is retained: MK *birqir*- «to snort», Khak. *pürqir*-id., Tuv. *bilyir*-id., NUig. *purqu*-id. < \**burqi*- < \**burqi*- < MK *birqi*- in *birqiy* «snort», MK *bürkür*- to spurt out, gush out», QB *bürkir*-id., Tel. *pürkür*-id., Khak. *pürgür*-id., Trkm. *xoryur*- «to snort» < \**qorqir*-, but Khak. *xoxir*-id. < \**qorqir*- = Mo. *qurkira*-, *quukira*- «to snore», etc.

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As is seen from the above-given examples, some of the Turkic echoic verbs in {-KIr-} also have varieties in {-KrA-}: CT *baqir*- ~ Tefs. *baqra*-, NUig. *waqira*-, CT *čaqir*- ~ NUig. (dial.) *čaqra*-/*čaqira*-. Other examples of Turkic echoic verbs in {-KrA-} include the following:

MK *čogra*- «to boil, bubble up noisily», *čogra-t*- (caus.), Uig. *čogura-t*-id., Kom., etc. *čograq* «spring, source» < *čogra-q* < \**čöqira*- < \**čorqira*-

~ Mo. *čorkira*-, *čurkira*- «to howl, roar; to speak loudly, to shout», Kh. *tsurxira*-id., Mo. *čor* «hubhub, uproar», *čor čor ki*- «to be noisy» (Kirg. *čorqura*- «to make noise, uproar or hubhub» < Mo.).

MK *kükürä*- «to roar, bellow; to thunder», Uig. *kükürä*-, *kükürä*- «to thunder», Tat., Bšk. *kükürä*-id. (an exception to the sound change  $\ddot{u} > \ddot{o}$ ), Kar. T. *kökrä*-id., Kar. H. *kekere*-id. < \**kükürä*-, Kum. *kökürä*-id. < \**kükürä*-, Osm. *kük-*

*rä*- «to roar; to be infuriated with rage», Trkm. *kükre*- «to be infuriated with sexual desire (of camels); to shout at, cry out loudly», Krč.-Blk. *kükürä*- «to thunder» < \**kükürä*- < \**kükürä*- < \**kürkürä*- (for the root cf. Trkm. *gürle*- «to thunder», Chuv. *kérle*-id. < \**kür-lä*-, etc.)

~ Mo. *kürkire*- «to growl, grunt, snarl: to roar (as a waterfall)», Kh. Bur. *xürxire*-id.; Kklp. *gürkire*- «to thunder», Alt. *kürkürä*-id., Kirg. *kürkürö*-id. < Mo., Yak. *kükürä*- «to weep bitterly; to roar, bellow» < Mo.; Ma. *kur* the sound made by tigers and other animals growling at one another.

MK *oqra*- «to whinny (of a horse)». Chag., Osm. *oqra*-id., Trkm. *hogra*-id., Kirg. *oqura-n*-id. < \**öqira*- < \**orqira*- ~ Tuv., Alt. *oyur*- «to roar, bellow», NUig. *oyur*- «to moo»

~ Mo. *orkira*-, *urkira*- «to roar, bellow, bawl» (see above).

Tat. *siqra*- «to moan, groan; to ache, suffer sharp pain», *siqra-n*-id., Bšk. *hiqra*-, *hiqra-n*-id., NUig. *siqira*-id., *siqira-š* «ache, pain» < \**siqira*- < \**sirqira*-

~ Mo. *sirkire*-, *sirkira*- «to bite, sting (as pain or sensation produced by eating hot pepper, etc.); to feel pain as rheumatism», Kh. *šarxira*-id. (Kzk., Kklp., etc. *sirqira*- «to moan, groan» < Mo., Yel. Uig. *siryara*-id. < Mo.).

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Before concluding this paper, I also would like to touch upon the problem of the structure of Turkic echoic verbs in {-rA-}, e.g., MK *čingra*- «to jingle, rattle, ring», *qoqra*- «to jingle, tinkle, ring», etc. It is generally believed that such verbs are derived from dissyllabic roots like \**čingir* (cognate to MK *čing* onom. for a ringing sound), MK *qoqur* «hoarse», etc. (Clouston 1972: 426, 639). While this might be correct, it is also probable that such verbs are derived from monosyllabic roots ending in /ŋ/ with the suffix {-KIrA-}, i.e., \**čingyira*- > \**čingyira*- > \**čingyira*- > MK, etc. *čingra*-. The fact that such verbs survive as trisyllabic stems in some Turkic languages (North-Eastern and Kipchak) may testify to such an assumption: MK, Osm. *čingra*-, but Khak. *siqira*-, Bšk. *siqyira*- < \**čingyira*-, MK *qoqra*-, but Tuv. *qoqyura*- < \**qoqyira*-, etc. Trisyllabic Mongolian verba in {-ginA-}, e.g., *činggine*- «to ring, resound» (< *čing-gine*-), *qonggina*-id. (< *qong-gina*-) could also serve as additional evidence for this hypothesis. It should also be noted that most of the echoic verbs in {-rA-} have varieties ending in {-G}Ir-}. Observe the following examples:

Osm. (TS) *aqra*- «to roar, bellow (of lions and other wild animals), *aqra*-id., NUig. *haqra*- «to bray», *haqra-š* «bray», dial. *haqyira-š* id., Kirg. *aqyira*- «to bray, howl, bellow» < *aqyira*-

~ Trk. *anur*- «to bray», Osm. *aqir*-id., Az., Tob. *anqir*-id., Trkm. *aqyir*-id. < \**anqir*- < \**anqira*- (for the root cf. MK *aqila*- «to bray», NUig. *haqla*-id. < \**aq-la*-, Ma. *aq* the sound made by camels and donkeys, etc.)

MK, etc. *iqra*- «to moan, groan; to bellow (camels)», Trkm. *iqra-n*-id., Kklp. *iqra-n*-id., Tel. *iqira*- «to low, moo (cows)», Yak. *iqira-n*- «to moo with

a low voice without opening the mouth», Kirg. *iŋira-*, *iŋyira-* «to low, bellow; to moan, groan», Tat., Bšk. *iŋyira-š-* «to moan, groan» < *iŋ-yira-*

~ Yak. *iŋir-* «to call, invite» < \**iŋŋir-* < \**iŋyir-* < \**iŋyira-* (for the root cf. Yak. *iŋ* the sound of a hollow bellowing, *iŋiryā-* «to moan, groan» < \**iŋir-qā-* < *iŋ-i-rqa-*, Chuv. *yinäš-* id. < \**iŋ-si-*, etc.)

MK *čingra-* «to ring, resound, jingle», Osm. (TS) *čingra-* id., Khak. *siŋira-* id., Alt. *siŋira-* id., Tuv., Kirg. *siŋyira-* id., Bšk. *siŋyira-* id. < \**čing-yira-*

~ Kirg. *čingir-* «to cry piercingly, to scream», Kzk., Kklp. *siŋyir-* id. < \**čingyir-* < \**čingyira-*; for the root cf. Mo. *činggine-* «to ring, resound» (Yak. *čingkinā-* id. < Mo.), *čanggina-* id. < *čing*, *čang* onom.

Uig. *künrä-n-* «to grumble», MK *künrä-n-* «to grumble, mutter», Shor *künrä-t-* «to ring, resound», *kinirä-n-* «to grumble, mumble», Kirg. *küŋgürö-* «to make a hollow sound, mutter» < \**küŋgirä-*, \**küŋyirä-*; for the root cf. Mo. *küŋgine-* «to make a hollow sound», Yak. *künkündä-* «to make a ringing sound» < Mo., Evk. *kiŋgi-*, «to ring, resound» < *kiŋ-gi-*, etc.)

MK *möŋrā-* «to low, moo», Kklp. *möŋre-* id., Kirg. *mörö-* id., Kzk. *möŋire-* id., Yak. *möŋürä-* id. < \**möŋŋürä-* < \**möŋgirä-* < \**möŋ* onom.

~ Trkm. *möŋŋür-* «to low, bellow» < \**möŋgür-* < \**möŋgir-* < \**möŋ-girä-* (cf. Mo. *mögere-*, *mögeri-* id., Ma. *muŋ maŋ* sound made by cattle or deer)

MK *qoŋra-* «to ring, jingle, tinkle», Khak. *xoŋra-* id., Tuv. *qoŋyura-*, *qinŋyira-* id., Kirg. *qoŋyura-* «to speak through the nose» < \**qoŋyira-*, MK *qoŋrayu* «bell», Kklp. *qoŋraw* id., Kzk., Nog., etc. *qoŋiraw* id., Khak. *xoŋurö* id., Kirg. *qoŋyurö* id. < \**qoŋyirayu*, MUig. *qoŋyuraq* id., Yel. Uig. *qoŋyiraq* id. < *qoŋ-yira-q*

~ Mo. *qanggira-* «to rattle» Kh. *xangira-* id., < *qang-gira-*, *qonggina-* «to ring, sound resonantly», Kh. *xongino-* id. < *qong-gina-*, *qanggina-* «to sound, ring, resound» < *qang-gina-*, *qanggilŋa-* «to resound, ring» < *qang-gi-lŋa-*, etc.

MK *yaŋra-* «to say, utter, make sound», IB *yaŋra-* «to ring, resound», MK *yaŋra-q* «resounding, ringing», Trkm. *yaŋra-* «to chatter, to speak nonsensically», Kirg. *jaŋira-* «to thunder», Tat. *yaŋyira-* «to ring, resound; to thunder», Kirg. *jaŋyira-* «to ring, resound» < \**yaŋyira-* < *yaŋ* onom.

~ Kirg. *jaŋir-* «to make a ringing sound» < \**yaŋir-* < \**yaŋŋir-* < \**yaŋyir-* < \**yaŋ* onom. (for the root cf. Mo. *yanggina-* «to emit a sharp, high-pitched sound» < *yang-gina-*, *yangsi-* «to bore with nagging or empty talk; to prattle, jabber without stopping» < *yang-si-* = MK *yaŋša-* «to chatter, babble», Trkm, *yaŋ-la-n-* «to echo», Ma. *yaŋ yaŋ* the sound of bells, Evk. *yaŋgura-* «to chatter» *yaŋguli-*, *yaŋgu-* «to ring, resound», *yaŋŋü-*, *yaŋgunä-* id., etc.)

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- The abbreviations used for the languages and dictionaries are identical with those which I generally use in my works.