

## ON VOWEL LENGTH AND PROSODY IN ALTAIC LANGUAGES

Starting with the classic works of Ramstedt (1957) and Poppe (1960, 1965) it has become a common place in Altaic studies to reconstruct a contrast of short vs. long vowels.

In Turkic languages long vowels are well preserved in Turkmen and Yakut, as well as in Khaladzh and some other dialects; traces of this opposition may be found in Azeri and Turkish (where voiceless stops become voiced after original long vowels) and in Tuvinian, where original short vowels tend to become pharyngealized (see, e. g., Räsänen 1949).

All Tungus languages have long vowels, although they are not always consistently recorded. The most conservative system is preserved in Evenki (while, e. g., long vowels in Even are frequently aberrant - a result of misrecording or interdialectal mixture); see [Цинциус 1949: 95-123].

The situation in Mongolian is controversial. Poppe (1965, 179) considers the long vowels of Dagur and Monguor as primary, although earlier (Poppe 1955, 74-75) he had stated a quite simple rule for their secondary lengthening: "The general rule seems to be that the original short vowels \*a and \*o become long before the vowel \*u of the second syllable, and similarly, the primary \*ö becomes long before the vowel \*ü". Later E. A. Khelimsky had inspected the problem of long vowels in South Mongolian and come to a persuasive conclusion about their secondary nature (although unfortunately the paper remained unpublished).

Long vowels also exist in Korean (denoted by two dots in Middle Korean orthography, and still alive in many modern

Korean dialects); however, they seem to be secondary in origin (they are mostly found in monosyllabic roots and seem to reflect compensatory lengthening after loss of the final vowel), and were never really used in reconstructing Proto-Altaic vowel length.

Thus it seems that the only two reliable sources for reconstructing Proto-Altaic vowel length are Turkic and Tungus, and the evidence of these two branches was indeed in most cases used to reconstruct the contrast.

When, however, we turn to the actual comparative Altaic evidence, we discover that the straightforward scheme of correspondences (Turk. long : Tung. long; Turk. short : Tung. short - see, e.g., Poppe 1965, 202) is violated far too often. There are, of course, numerous cases of short vowels in Turkic corresponding to short vowels in Tungus; but the other correspondence is almost lacking. In fact, the only case when Tungus long vowels correspond to Turkic long vowels is the case of monosyllabic Tungus roots with a lost root-final resonant, e. g. Ev. *sī-* 'to extinguish' : Turkm. *sōn-* id. (for some other examples see below). To be sure, Tungus languages have also roots of the type \*CV- with short vowels - but they are always originally monosyllabic (like \**ba-* 'to propose for marriage'), while roots like \**sī-* (or \**mō-* 'tree') go back to disyllabic roots with a medial resonant and a final narrow vowel (see Starostin 1991, 20-21). We may safely assume that original long vowels were never shortened in this environment, while they could be shortened elsewhere (see below).

The bulk of Turkic-Tungus comparative data, on the other hand, reveals a quite unexpected scheme of correspondences:

Turkic long : Tungus short;

Turkic short : Tungus long.

(There is, of course, the third type - short : short - that was already mentioned above).

This means that whenever Turkic languages have a long vowel, the Tungus match has a short one, and vice *versa*; the only type of correspondences that is practically absent (with the

exclusion of the above-mentioned monosyllabic Tungus roots) is 'long : long'.

Now how can one explain this peculiar situation? It seems that the clue lies in the Korean-Japanese area, which we will consider next.

In [Starostin 1991, 83-85] I have dwelt in some detail on the problem of Korean-Japanese accent correspondences, arguing that the general system of correspondences (in the first syllable) is the following:

Middle Korean	Proto-Japanese (and Old Japanese)
$\grave{V}$ (low)	$\acute{V}$ (high)
$\acute{V}$ (high)	$\grave{V}$ (low)

As for the third type (Middle Korean long: Proto-Japanese high), proposed *ibid.* (p. 84), I would now think that it is only a particular case of secondary vowel lengthening in Korean (see above): the cases of Korean long vowel with a low tone in Japanese also exist, and are no less in number than the other type. Thus we have to acknowledge that in cases of secondary vowel lengthening Korean had lost the original tonal opposition.

There are, of course, some exceptions (see *ibid.*, p. 84) which is not at all surprising for tonal correspondences, but the overwhelming majority of Korean-Japanese cognates reveals a quite clear-cut two-way tonal distinction.

When we turn to common Altaic comparison, we discover that the two types of length correspondences between Turkic and Tungus correlate quite well with the two types of tonal correspondences between Korean and Japanese. All the correspondences may be presented in the following chart:

	Turkic	Tungus	Korean	Japanese
Type 1	* $\bar{V}$ (long)	* $\check{V}$ (short)	$\grave{V}$ (low)	$\acute{V}$ (high)
Type 2	* $\check{V}$ (short)	* $\bar{V}$ (long)	$\acute{V}$ (high)	$\grave{V}$ (low)

Words with short vowels both in Turkic and Tungus can have either of the two tonal types in Proto-Korean-Japanese, thus yielding two other types of prosodic correspondences:

	Turkic	Tungus	Korean	Japanese
Type 3	* $\check{V}$ (short)	* $\check{V}$ (short)	$\grave{V}$ (low)	$\acute{V}$ (high)
Type 4	* $\check{V}$ (short)	* $\check{V}$ (short)	$\acute{V}$ (high)	$\grave{V}$ (low)

While types 3 and 4 are trivial (no distinction corresponding to Korean-Japanese tone has been preserved in Turkic and Tungus), types 1 and 2 are not and we would like to illustrate them with comparative Altaic material.

Note: Korean or Japanese forms in angle brackets denote cases of irregular tonal correspondence between Korean and Japanese. We do not include such cases (which are very few in number) into the general list of exceptions, because here at least one member of the Korean-Japanese subgroup demonstrates regular correspondence with other branches of Altaic.

### Type 1

\* $\bar{a}k$  'light, white: Turk. \* $\bar{a}k$ ; Jap. \* $\acute{a}k\acute{a}$ -.

Turk. \* $\bar{a}k$  white: OTurk.  $aq$ ; Turk.  $ak$ ; Tat.  $ak$ ; Uzb.  $oq$ ; Uigh.  $aq$ ; S.-Yugh.  $aq$ ; Az.  $aG$ ; Turkm.  $\bar{a}q$ ; Hak.  $ax$ ; Tuv.  $ak$ ; Kirg.  $ak$ ; Kaz.  $aq$ ; Nog.  $ak$ ; Bash.  $ak$ ; Balk.  $aq$ ; Karakalp.  $aq$ ; Sal.  $a\chi$ . See VEWT 12b, TMN 2,84-5, EDT 75.

Jap. \* $\acute{a}k\acute{a}$ - red: OJ  $aka$ -; Tok.  $\grave{a}kai$ ; Kyo.  $\grave{a}kai$ ; Kag.  $akaka$ ; Nas.  $h\acute{a}$ -; Shu.  $\grave{a}k\acute{a}$ -; Hat.  $\acute{a}g\grave{a}$ -; Yon.  $\grave{a}g\acute{a}$ - $nt\acute{a}r\acute{i}$ .

\* $\bar{a}ka$  elder brother: Turk. \* $\bar{a}ka$ ; Mong. \* $\acute{a}ka$ ; TM \* $\acute{a}k\bar{a}$  / \* $\acute{a}k\bar{a}$ .

Turk. \* $\bar{a}ka$  elder brother 1: respectful address 2: elder: OTurk.  $aqa$ ; Turk.  $a\gamma a$  1; Az.  $a\gamma a$  1; Turkm.  $\bar{a}Ga$ ; Yak.  $a\gamma a$  2; Tuv.  $aki$ ; Kirg.  $a\gamma a$ . See VEWT 13a.

Mong. \* $\acute{a}ka$  elder brother: MMong.  $aqa$ ; Khalkh.  $ax$ ; Kalm.  $a\chi\grave{a}$ ; Dag.  $ak\bar{a}$ ; Yogh.  $ava$ ; Monguor.  $aGa$ .

Tung. \**akā* / \**kakā* man 1: elder brother: Neg. *aga* / *axa* 1; Manch. *hahə*; Lit. Manch. *xaxa* (*axun* 1); Nan. *ā* 1; Ulch. *aGa* 1; Orok. *aGa* / *aga* 1; Zhurzh. *xaxaaj* (*lahu-*/ 1); Evenk. *akā*, akin 1. TMC 1, 23-24, 459. See Poppe 1960, 55.

\**ālV* to cross (a mountain): Turk. \**āl-*; Mong. \**alu-s*; TM \**ala-*.

Turk. \**āl-* to cross (a mountain): OTurk. *aš-*; Turk. *aš-*; Az. *aš-*; Turkm. *āš-*; Yak. *ās-*; Kirg. *aš-*. VEWT 30, EDT 255.

Mong. \**alu-s* on the other side; far away 1: WMong. *alus*; Khalkh. *als* 1; Kalm. *alš*.

Tung. \**ala-* to pass (a mountain) 1: mountain: Neg. *alan-*; Manch. *aliŋ* 1; Lit. Manch. *alin* 1; Nan. *ala* *перевал*; Zhurzh. *aliin* 1; Evenk. *ala-*. TMC 1, 27-28.

See TMC 1, 28, ЭСТЯ 1,214, Poppe 1960, 96, KW 7, VEWT 30. Cf. perhaps also Old Jap. *asu* (*azu*) 'steep bank, precipice'.

\**ānta* oath; comrade, match: Turk. \**ānt*; Mong. \**anda*; TM \**anda*; Jap. \**āta*.

Turk. \**ēg-* to bend: OTurk. *äg-*; Turkm. *eg-*; Chuv. *av-*, *aj-*; Yak. *iäχ-*. See VEWT 37 (Turkm. has a secondary vowel shortening here).

Mong. \**anda* oath; friend: MMong. *anda*, *anda-Gar*.

Tung. \**anda* friend: Neg. *anda*; Lit. Manch. *anda*; Nan. *anda*; Ulch. *anda*; Orok. *anda*; Zhurzh. '*án-tāh-hâi*'; Evenk. *anda*. TMC 1, 42-43.

Jap. \**āta* enemy: OJ *ata*; Tok. *adá*; Kyo. *ádà*; Kag. *ádà*. Modern dialects point to \**á(n)tà*; RJ has *átá*.

See VEWT, TMC.

\**āñV* moon; (moon cycle), year: Turk. \**āñ*; TM \**añŋa*.

Turk. \**āñ* moon: OTurk. *aj*; Turk. *aj*; Tat. *aj*; Uzb. *oj*; Uigh. *aj*; S.-Yugh. *aj*; Az. *aj*; Turkm. *āj*; Hak. *aj*; Chuv. *ojăx*; Yak. *ij*; Tuv. *aj*; Kirg. *aj*; Nog. *aj*; Bash. *aj*; Balk. *aj*; Gag. *aj*; Crim. *aj*; Karakalp. *aj*; Sal. *aj*. See VEWT 10a, EDT 265, ЭСТЯ.

Tung. \*ańŋa year: Neg. ańŋani; Manch. ani; Lit. Manch. ańa; Nan. ańańa; Ulch. ańa(n); Orok. anani; Zhurzh. ania; Evenk. anŋani. See TMC 1, 43-44.

\*āřV to go astray, mistake: Turk. \*āř- / \*jāř-; Mong. \*ere-γü; TM \*eru-; Kor. \*ārjā-b-; Jap. \*árá-.

Turk. \*āř- / \*jāř- to go astray, lose one's way 1: to lose mind, go mad 2: to miss: OTurk. az-, jaz-; Turk. jaz-; Turkm. āz-; Chuv. ur- 1; Yak. sīs- 2. VEWT 33, 193. Cf. also Khaladzh hāz-.

Mong. \*ere-γü torture, crime: WMong. ere-gü; Khalkh. erü; Kalm. erü.

Tung. \*eru- bad 1: torture, torment 2: to torture 3 to be mistaken: Lit. Manch. eru-n 1; Nan. erü 1; Ulch. eru-le- 2; Evenk. erü; ere- 3. See TMC 2, 465-6.

Kor. \*ārjā-b- to be difficult, hard, in distress: Phyon. arjāp-ta; MKor. arjāp-tá (-v-).

Jap. \*árá- to behave violently, be in distress: OJ ara-; Tok. àre-ru; Kyo. áré-rú; Kag. àré-rù.

See SKE 57 (Mong., Tung., Kor.). In Kor. cf. also MK àrí-tá 'be mistaken; be silly'.

\*āŋkV (~k-) to rise: Turk. \*āŋg-; Jap. \*ánká-.

Turk. \*āŋg- to rise, get up 2 to roll over, fall over 3 climb over: OTurk. aγ-; Turk. aγ-; Turkm. āγ- 2; Yak. āŋ-na- 2; Kirg. ō- 2; Balk. au- 3. See VEWT 7.

Jap. \*ánká- to raise 1: give: OJ ag-u; Tok. àNeru; Kyo. áNeru.

\*bā to bind: Turk. \*bā; TM \*ba-; Kor. \*pa; Jap. \*bá.

Turk. \*bā to bind 1: bundle 2: rope: OTurk. ba-; Turk. ba-γ-la 1; Tat. bau 2; Turkm. bā-G 1; Yak. bia 2; Kaz. bau 2. See VEWT 53 (\*bā, deriv. \*bā-g).

Tung. \*ba- to propose for marriage 2 proposed for marriage since childhood: Lit. Manch. ba-čixi 2; Evenk. ba-. See TMC 1, 60.

Kor. \*pa rope, string: Phyon. pa.

Jap. \**bó* rope: OJ *wó*; Tok. *wó*; Kyo. *wó*; Kag. *wó*. The Tokyo accent is aberrant (\**wò* would be expected), but Kyoto, Kagoshima and the RJ gloss (*wó*) point to \**bó*.

See АПИПЯЯ 68.

\**bāja* rich: Turk. \**bāj*; Mong. \**baja-n*; TM \**baja-n*.

Turk. \**bāj* rich: OTurk. *baj*; Turkm. *bāj*; Chuv. *pojan, pujan*; Yak. *bāj*. VEWT 56.

Mong. \**baja-n* rich: MMong. *bajan*; Khalkh. *bajī*; Dong. *bajan*; Bao. *bajan*; Dag. *bajin*; Yogh. *bajan*; Monguor. *bajan*.

Tung. \**baja-n* rich: Neg. *bajan*; Lit. Manch. *bajan*; Nan. *bajā*; Ulch. *baja(n)*; Orok. *baja(n)*; Zhurzh. *póh-yâng*; Evenk. *bajan, baj*. See TMC 1, 65.

Correspondences are regular, and the root may well be Common Altaic (although *interlingual* borrowings are possible, too).

\**bālV*, \**bāl-tV* bear, be born; child: Turk. \**bāla* (/ \**bālā*-); Mong. *balči-r*; TM \**baldi*-.

Turk. \**bāla* (/ \**bālā*-) young (of birds, animals) 1: small 2: child, baby: OTurk. *bala*; Turk. *bala* 2; Az. *bala* 2; Turkm. *bāla* 2; Kirg. *bala* 2; Bash. *bäläkäj* 1. See VEWT 59b, EDT 332b.

Mong. *balčir* very young, infant: WMong. *balčir*.

Tung. \**baldi*- bear, be born: Neg. *baldī*-; Lit. Manch. *banžī*-; Nan. *balžī*-; Ulch. *baldī*-; Orok. *balžī*-; Zhurzh. /*pan-ti*-/; Evenk. *baldi*-. See TMC 1, 69-70.

\**bērV* (~ \**p*-) give; take, collect: Turk. \**bēr*-; Jap. \**píri-p*-.

Turk. \**bēr*- give: OTurk. *ber*-; Turk. *ver*-; Tat. *bir*-; Uzb. *ber*-; Uigh. *bär*-; S.-Yugh. *ber*-; Az. *ver*-; Turkm. *ber*-; Hak. *pir*-; Chuv. *par*-; Yak. *bier*-; Tuv. *ber*-; Kirg. *ber*-; Kaz. *ber*-; Nog. *ber*-; Bash. *bir*-; Balk. *ber*-; Gag. *ver*-; Crim. *ver*-; Karakalp. *ber*-; Sal. *be(r)*-, *ve(r)*-. See VEWT 70b, EDT 354-5.

Jap. \**píri-p*- gather, collect: OJ *pirip*-; Tok. *hìro-u*.

\**bōIV* to be: Turk. \**bōl*-; Mong. \**bol*-; Jap. \**bór*-.

Turk. \**bōl-* to be: OTurk. *bol-*; Chuv. *pul-*; Yak. *buol-*; VEWT 79.

Mong. \**bol-* to become: MMong. *bol-*; Khalkh. *bol-*; Dag. *bol-*; Yogh. *bol-*.

Jap. \**bór-* to be: OJ *wor-*; Tok. *ór-u*; Kyo. *ór-ú*; Kag. *ór-ù*. Accent in Tokyo is aberrant; all other dialects, as well as RJ *wór-*, point to \**bór-*.

See АПиПЯЯ 68.

\**būktV*leg, thigh: Turk. \**būt*; TM \**begdi* / \**bugdi*.

Turk. \**būt* thigh 1: leg, foot: OTurk. *but*; Turk. *but*; Az. *bud*; Turkm. *būt*; Yak. *būt*; Tuv. *but* 1; Kirg. *but* 1. See VEWT 90b, EDT 297b.

Tung. \**begdi* / \**bugdi* leg 1: foot: Neg. *begdi*; Manch. *betaxə* 1; Lit. Manch. *betxe* 1; Nan. *begd'i* 1; Ulch. *begdi*; Orok. *begži*; Zhurzh. *bodixe* 1; Evenk. *begdi*. See TMC 1, 118-119.

\**čūātV*sweet, taste: Turk. \**dāt*; Mong. \**dadu-*; TM \**žutī*.

Turk. \**dāt* taste 1: (be) sweet, tasty 2: to taste 3: to get accustomed: OTurk. *tat*, *tati-* 1; Turk. *tat* (-*d*-), *dadan-* 3; Az. *dad*, *dadan-* 3; Turkm. *dāt*, *dāt-lī* 1; Chuv. *tudā*, *tut-lā* 1, *tudan-* 3. See VEWT 466, ЭСТЯ 3, 162-164.

Mong. \**dadu-* to get accustomed: WMong. *dadu-*.

Tung. \**žutī* sweet: Evenk. *žutī*. Cf. also Even. *žut* id. See TMC 1, 279.

See АПиПЯЯ 13.

\**čōlu* full, fill: Turk. \**dōl-i*; TM \**žalu(-m)*; Kor. \**čārà-*; Jap. \**tár-*.

Turk. \**dōl-i* full: OTurk. *tolu*; Turk. *dolu*; Tat. *tulī*; Uzb. *tūla*; Uigh. *tolyan*; S.-Yugh. *tolī*; Az. *dolu*; Turkm. *dōlī*; Hak. *toldīra*; Chuv. *tollī*; Yak. *toloru*; Tuv. *dolu*; Kirg. *toltura*; Nog. *tolī*; Sal. *doli*. PT \**dōl-i* is derived from \**dōl-* 'to get filled'. See VEWT 486a, EDT 491-2, 491a.

Tung. \**žalu(-m)* full: Neg. *žalum*; Manch. *žaluu*; Lit. Manch. *žalu-*; Nan. *zalo*; Ulch. *žalu(n)*; Orok. *dalumži*; Zhurzh. *žawluxa*;



Evenk. *žalum*. Derived from PTM *\*žalu-* 'to fill, be filled'. See TMC 1, 247.

Kor. *\*čārà-* be sufficient, enough: Phyon. *čara-da*; MKor. *čārà-*.

Jap. *\*tár-* be sufficient, full: OJ *tar-*; Tok. *tàri-ru*.

*\*čōlV* front, front part, breast: Turk. *\*döl*; TM *\*žule*; Kor. *\*čira*.

Turk. *\*döl* breast: OTurk. *töš*; Turk. *döš*; Tat. *tüš*; Az. *döš*; Turkm. *döš*; Chuv. *čül-lék* 1; Yak. *tüös*; Tuv. *töš*; Kirg. *töš*. See VEWT 495b, EDT 558b.

Tung. *\*žule* front, front part: Neg. *žul-lē*; Lit. Manch. *žule-ri*; Nan. *žule*; Ulch. *žuli*; Orok. *duli, dulce*; Zhurzh. */ču-le/*; Evenk. *žulē*. See TMC 1, 273-274.

Kor. *\*čira* before, beforehand: Phyon. *čire*; MKor. *čira*.

See SKE 35 (Kor.-Tung.). For semantics in Turk. cf. Evenk. *žulē* 'front, front part; front part (of animal's body)'.

*\*dāli* mane; collar: Turk. *\*jāl/\*jāl*; Mong. *\*del, \*dalaŋ*; TM *\*deli-n*; Jap. *\*(d)iarì*.

Turk. *\*jāl/\*jāl* mane 1: feather: OTurk. *jal*; Turk. *jele*; Tat. *jali*; Uzb. *jol*; Az. *läläk* 1, *jal*; Turkm. *jelek* 1, *jāl*; Hak. *čilen*; Chuv. *šilye*; Yak. *siel*; Tuv. *čel*; Kirg. *žal*; Balk. *žalqa*; Crim. *lelek*. See VEWT 181a, EDT 916. The Oghuz name for 'feather' (*jäläk/läläk*) is probably derived from this root.

Mong. *\*del, \*dalaŋ* mane: MMong. *del*, WMong. *dalaŋ*; Khalkh. *del*; Kalm. *del, dalŋ*; Dag. *dəlbür*; Yogh. *del*.

Tung. *\*deli-n* mane: Lit. Manch. *delun*; Nan. *derbini* (?); Evenk. *delin*. See TMC 1, 232.

Jap. *\*(d)iarì* collar: OJ *eri*; Tok. *erì*.

*\*dālu* to lick: Turk. *\*jālga-*; Mong. *\*doluya-*; TM *\*dala-*.

Turk. *\*jālga-* to lick: OTurk. *jalga-*; Turk. *jala-*; Turkm. *jāla-*; Chuv. *šula-*; Yak. *salā-*. See VEWT 182.

Mong. \**doluyā-* to lick: MMong. *doluyā-*, *doliya-*; Khalkh. *dɔlɔn*; Dong. *dolu-*; Bao. *dolə-*; Dag. *dolō-*; Yogh. *dōl-*; Monguor. *dōlə-*.

Tung. \**dala-* to lick 1: to feed (animals): Neg. *dala-*; Nan. *dalo-* 1; Ulch. *dala-n-* 1; Evenk. *dala-*. See TMC 1, 193.

\**dōrV* birch bark, vessel made of birch bark: Turk. \**Tōr*; TM \**duri*; Jap. \**tútú*.

Turk. \**Tōr* birch bark 2 birch cover (for a bow) 3 vessel made of birch bark: OTurk. *toz* 1, 2; Tat. *tuz*; Yak. *tuos* 1, 3; Kirg. *toz*; Kaz. *toz*. See VEWT 491-2.

Tung. \**duri* cradle made of birch bark: Neg. *duj*; Lit. Manch. *duri*; Nan. *duri*; Ulch. *duri*. TMC 1, 217.

Jap. \**tútú* a round vessel (made of bamboo): OJ *tutu*; Tok. *tsùtsu*; Kyo. *tsútsú*. RJ *tútú*, Tokyo *tsùtsu* and Kyoto *tsútsú* point directly to \**tútú*; however, the Tokyo variant *tsutsú* and Kagoshima *tsùtsú* may indicate a variant \**tùtù*.

\**dūri* face: Turk. \**jūr*; Mong. \**dūri*; TM \**duru-n*; Jap. \**túra*.

Turk. \**jūr* face 1: forehead: OTurk. *jüz*; Turkm. *jüz*; Yak. *sūs* 1; Kaz. *žüz*. VEWT 213-4. Cf. also Khaladzh *jīz* (= Yak. *sūs* and proving that Turkm. *jüz* is secondary).

Mong. \**dūri* form, outlook: MMong. *dūri*.

Tung. \**duru-n* form, outlook 1: pattern, design 2: picture: Neg. *dujun* / *dujin*; Manch. *duru-Gan* 2; Ulch. *duru(n)*; Orok. *duru(n)*; Evenk. *durun* 1. See TMC 1, 225-6.

Jap. \**túra* face: OJ *tura*; Tok. *tsurá*; Kyo. *tsùrà*; Kag. *tsùrà*. Modern dialects suggest rather a reconstruction \**tùrà*; however, RJ has *tùrà* which suggests a later tonal assimilation in Kyoto and Kagoshima (Tokyo does not distinguish between `` and ^).

See АПиПЯЯ 71.

\**ēlku* to hang on (smth.), hang on hook: Turk. \**īl-*; Mong. \**elgü-*; TM \**elgu*.

Turk. \**īl-* to hang on (smth.): OTurk. *il-*; Tat. *əl-*; Turkm. *īl-*; Yak. *īl-*. See VEWT 170.

Mong. \**elgü-* to hang on (smth.): WMong. *elgü-*, *ölgü-*; Khalkh. *ölgö-*.

Tung. \**elgu* hook (for pulling fish out of net) 1: fish-spear: Neg. *elgu*, *elge*; Nan. *elgu*; Ulch. *elžu*; Orok. *eldu*; Evenk. *elgu* 1. See TMC 2, 445-6.

See Poppe 76, VEWT 170. If the original meaning is 'hook, spike', then we could perhaps compare also PJ \**inkà* 'thorn' (Tok. *igá*, Kagoshima *igà*).

\**ērV*early: Turk. \**ēr*; Mong. \**er-te*; TM \**erü-n*; Kor. \**irì-*.

Turk. \**ēr* early 1 early in the morning 2 tomorrow 3 (morning sun) > sunny mountain slope: OTurk. *ir* 3, *är-känin* 1; Turk. *är* 1; Turkm. *ir*; Chuv. *ir* 2. See VEWT 46.

Mong. \**er-te* early: MMong. *erte*; Khalkh. *art*; Dong. *atsiä*; Bao. *etä*; Dag. *ard*; Yogh. *rde*; Monguor. *šde*.

Tung. \**erü-n* time: Neg. *ejun*; Lit. Manch. *erin*; Nan. *erĩ*; Ulch. *eru(n)*; Orok. *eru(n)* / *eri(n)*; Zhurzh. *óh-lîn*; Evenk. *eri*. See TMC 26 463-4.

Kor. \**irì-* early: Phyon. *iri-da*; MKor. *irì-tá*.

See VEWT 46, SKE 69.

\**iēkV*big, many: Turk. \**ēg-id-*; Mong. \**jike*; TM \**egdi*.

Turk. \**ēg-id-* to grow, bring up 1: high, raised up 2: huge: OTurk. *igid-*, *egid-*; *ediz* (< \**ēdgir*); Turkm. *āgirt* 2; Yak. *īt-*. VEWT 36, 169b.

Mong. \**jike* big: MMong. *jeke*; Khalkh. *ix*; Kalm. *ikǎ*; Dong. *fugiä*; Bao. *fgo* / go; Dag. *xig*; Yogh. *šge*; Monguor. *šGe*.

Tung. \**egdi* big 1: many: Neg. *egdi* 1; Nan. *egd'i* 1; Ulch. *egdi* 1; Orok. *egži* 1; Evenk. *hegdi*. Unclear is the initial h- in Evenk. See TMC 2, 359-360.

See VEWT 169, SKE 62.

\**īrV* come, enter: Turk. \**ēr-*; Mong. \**ire-*; TM \**ī-*; Jap. \**itá-r-*.

Turk. \**ēr-* to reach: OTurk. *är-*; Turk. *är-*, *ir-*. Räsänen (VEWT 46) connects also PT \**erí-* 'to contest, challenge' which,

together with Mong. *eri-* 'to seek, search', should be rather kept apart. Length is well preserved in Khaladzh *īr-* 'to reach'.

Mong. *\*ire-* come: MMong. *ire-*; Khalkh. *ire-*; Kalm. *ir-*; Dong. *irə-*; Bao. *rə-*; Dag. *ir-*; Yogh. *ere-*; Monguor. *re-*.

Tung. *\*ī-* enter: Neg. *ī-*; Lit. Manch. *ji-be-*; Nan. *ī-*; Ulch. *ī-*; Orok. *ī-*; Zhurzh. *li-le/*; Evenk. *ī-*. TMC 1, 293.

Jap. *\*itá-r-* reach: OJ *ita-r-*; Tok. *itar-u*.

See Poppe 1960, 117 (Mong.-Tung.). In Jap. one could (following Ozawa) compare *\*ír-* 'to enter', but the latter should be rather compared with Kor. *tír-* id. Turk. reveals variants *\*ēr-* and *\*īr-* (< *\*ire-*?).

**\*īn** *V* hollow, pit: Turk. *\*īn*; Mong. *\*oni*; TM *\*un(V)*.

Turk. *\*īn* hollow, pit: OTurk. *in*; Turkm. *hīn*; Chuv. *jənə*; Yak. *in*. See VEWT 172.

Mong. *\*oni* hollow, groove (on point of an arrow): WMong. *oni*; Khalkh. *oń*.

Tung. *\*un(V)* hollow, groove (on point of arrow) 1: lair, den: Neg. *un*; Lit. Manch. *un* 1; Evenk. *un*. See TMC 2, 273.

**\*k [i]ni** sheath, scabbard: Turk. *\*kīn*; Mong. *\*kuji*; TM *\*(x)ene-kī*.

Turk. *\*kīn* sheath, scabbard: OTurk. *kin*; Turk. *kin*; Turkm. *kīn*; Hak. *χin*; Chuv. *jənə*; Yak. *kīn*. See VEWT 264.

Mong. *\*kuji* sheath, scabbard: MMong. *qui*.

Tung. *\*(x)ene-kī* sheath, scabbard: Neg. *enexī*; Evenk. *enekī*. See TMC 2, 455.

**\*k iār** *V* snow, hoar-frost: Turk. *\*kār*; Mong. *\*kira-γu*, *\*kir-mag*; TM *\*xima-ηsa*.

Turk. *\*kār* snow: OTurk. *kar*; Turkm. *kār*; Chuv. *jur*; Yak. *χār*. See VEWT 235.

Mong. *\*kira-γu*, *\*kir-mag* hoar-frost 1: first snow: MMong. *kirayū(n)*, WMong. *kirmaG*; Khalkh. *xirō*; Kalm. *kirū*, *kirmAG* 1; Dong. *qirəu*.

Tung. *\*xima-ŋsa* snow: Neg. *imana*; Lit. Manch. *nimaŋgi*; Nan. *sišana, sišata*; Ulch. *sišana, sišata*; Orok. *sišana, sišata*; Zhurzh. *yih-mâ-kih*; Evenk. *imana*. See TMC 1, 312-313 (all the languages reflect also various verbs derived from the root *\*xima-*).

Turkic languages also reflect a stem *\*kiragu* (since the 11th century) 'hoar-frost' - which is most probably a loan from Mong. (and thus an etymological doublet). The etymology belongs to O. Mudrak and presupposes a cluster simplification in PTM: *\*xima-* < *\*xir-ma-* (= Mong. *kir-ma-G*). Perhaps we should also consider comparing PJ *\*kâiri* (~ *\*kûiri*) 'fog' (OJ *kjiri*, RJ *kîri*) and reconstruct PA *\*k'âjrV* - although the semantics raises some doubts.

**\*k' uāŋV** blood; blood vessel: Turk. *\*kân*; TM *\*xuŋi-hta*.

Turk. *\*kân* blood: OTurk. *qan*; Turk. *kan*; Tat. *kan*; Uzb. *qon*; Uigh. *qan*; Az. *Gan*; Turkm. *Gân*; Hak. *xan*; Chuv. *jon*; Yak. *qân*; Tuv. *xan*; Kirg. *kan*; Kaz. *qan*; Nog. *kan*; Bash. *kan*; Balk. *qan*; Gag. *qan*; Crim. *qan*; Karakalp. *qan*; Sal. *Ga(:)n*. VEWT 230a, TMN 3, 360-1, EDT 629-30 (T8, U8ff).

Tung. *\*xuŋi-hta* blood vessel: Neg. *oŋtâ, oŋikta*; Nan. *xoŋiŋta*; Ulch. *xoŋGiŋta*; Orok. *xumuŋta*; Evenk. *uŋikta*. The original stem is preserved in Evenk. dial. *uŋi-* 'to bleed, flow (of blood)'. See TMC 2, 278.

The comparison seems quite likely, although the nature of the medial nasal is not quite clear (perhaps we should still reconstruct *\*-n-* with a secondary assimilation to two neighbouring velars in PTM). If we assume a semantic development 'blood' > 'red' > 'red metal, bronze', we could also think of comparing PJ *\*kânâ-* (OJ *kane / kana-*, RJ *kânê*) 'bronze, metal' (which otherwise is quite obscure etymologically). A semantic development like this occurs also in some Siberian languages, and can not be excluded in Altaic.

**\*k' āla** to stay, wait; move away: Turk. *\*Kâl-*; TM *\*xala-*; Jap. *\*kâra-*.

Turk. \**Kāl-* to stay: OTurk. *kal-*; Turk. *kal-*; Turkm. *kāl-*; Chuv. *jul-*; Yak. *χāl-*. VEWT 224.

Tung. \**xala-* to wait: Lit. Manch. *ála-*; Nan. *xala-či-*; Ulch. *xala-či-*; Orok. *xalā-či-*; Evenk. *alā-č-*. TMC 1, 29-30.

Jap. \**kára-* to stay away, get apart: OJ *kara-*. For accent cf. RJ *kár-ù*.

\***k**´*āp*´*V*bark, skin: Turk. \**kāpuk*; Mong. \**kayu-da-sun*; TM \**xabda(-nsa)*; Kor. \**kāph-* / \**kāph-*; Jap. \**kāpa* (/ \**kāpa*).

Turk. \**kāpuk* bark (n.), shell 1: shell (only): Turk. *kabuk*; Tat. *kabik*; Uzb. *qobiq*; Az. *GabiG*; Turkm. *Gābiq*; Hak. *xaxpas*; Chuv. *xobā*; Tuv. *xavik* 1; Kirg. *kabik*; Kaz. *qabiq*; Nog. *kabik*; Bash. *kabik*; Balk. *qabuq*; Gag. *qap*, *qabi*; Crim. *qabux*; Karakalp. *qabiq*; Sal. *Goχ*. See VEWT 234b, TMN 3, 368-9.

Mong. \**kayu-da-sun* bark: WMong. *qaudasun*; Kalm. *χūdāsñ*.

Tung. \**xabda(-nsa)* leaf: Neg. *abdana*; Manch. *afəhə*; Lit. Manch. *abdaxa* / *afaxa*; Nan. *χaftaca*; Ulch. *χabdata*; Orok. *xamdata*; Zhurzh. *ha/bxa*; Evenk. *abdanna*. See TMC 1, 5.

Kor. \**kāph-* / \**kāph-* bark 1: skin: Phyon. *kəpčil*; Chon. *koptégi*; Ph.-Nam. *kəpčil*; Kyon. *kəpči*; Ham. *kəpči*; Choj. *kəptegi*; Seoul. *kəpt'il*; Kan. *kəptegi*; MKor. *kəphír*, *kəpčir*.

Jap. \**kapa* skin; bark: OJ *kapa*; Tok. *katwá*; Kyo. *kàwa*; Kag. *katwa*; Nas. *kó*; Shu. *ká*; Yon. *kà*.

\***k**´*ēη*´*V*wide: Turk. \**gēη*; Mong. \**keη*; TM \**xemηe*.

Turk. \**gēη* wide: OTurk. *kiη*; Turk. *gen*; Tat. *kiη*; Az. *gen*; Turkm. *gīη*; Yak. *kiäη*. See VEWT 253.

Mong. \**keη* wide, broad: WMong. *keη*.

Tung. \**xemηe* wide: Neg. *emηe*; Orok. *xemge*; Evenk. *emηe*. See TMC 2, 450-1.

In PT \**k-* would be expected: this is one of the exceptional cases of secondary voicing before original long vowels.

\***k**´*ī*´*V*sable, squirrel: Turk. \**kīl*; TM \**xulu-kī*.

Turk. \**kīl* sable: OTurk. *kiš*; Tat. *kəš*; Yak. *kīs*. See VEWT 272 (one of the Turk.-Samoyed. contact words; because of the Tungus parallel, probably Turk. > Samoyed.).

Tung. \**xulu-kī* squirrel: Neg. *ołoxī*; Lit. Manch. *ulxu*; Nan. *xulu*; Ulch. *xolo*; Orok. *xolo* / *xulu*; Evenk. *ulukī*. See TMC 2, 263-4.

\****k*ʹ*ɨŋ*V** navel, cavity: Turk. \**kīn*, \**kīn-tik*; Mong. \**kūji*, \**kūji-sün*; TM \**xuŋurē*; Kor. \**kūŋ-k* / \**kùm-k*; Jap. \**kúma*.

Turk. \**kīn*, \**kīn-tik* navel, centre 1: navel of a musk-deer, musk 2: vagina: OTurk. *kindik*; *kin* 1, 2; Turk. *kindik*; Hak. *kin*, *kindik*; Yak. *kīn*. See VEWT 271.

Mong. \**kūji*, \**kūji-sün* navel: MMong. *kūji*, *kūji-sün*; Khalkh. *xīs*; Dong. *kuisun*; Bao. *kisun*; Dag. *kuis*; Yogh. *kūsən*; Monguor. *kuiiʒə*.

Tung. \**xuŋurē* navel: Neg. *uŋío-n*; Nan. *xujmu*; Ulch. *xujmu*; Orok. *xūnu*; Evenk. *uŋurē*. See TMC 2, 280.

Kor. \**kūŋ-k* / \**kùm-k* cavity: Phyon. *kuməŋ*, *kumək*; MKor. *kūŋk*, *kùmú(k)*.

Jap. \**kúma* inner angle, cavity: OJ *kuma*; Tok. *kumá*; Kyo. *kúma*. Kagoshima has irregular accent: *kùmá* (which would point to \**kùmà*) - but the other dialects, together with the RJ form *kúmá* / *kúmà* point uniformly to a high tone in the first syllable.

\****kāk*ʹ*ir*V** to belch: Turk. \**gākir-*; Mong. \**kekire-*; TM \**kekere-*.

Turk. \**gākir-* to belch: OTurk. *kākir-*; Turk. *gājir-*; Tat. *kikər-*; Turkm. *gāgir-*; Chuv. *kagār-*; Yak. *kegert-*. See VEWT 248.

Mong. \**kekire-* to belch: WMong. *kekire-*; Kalm. *kekr-*; Tung. \**kekere-* to belch: Lit. Manch. *kekere-*; Nan. *kēre-čī-*, dial. *keker-čī-*; Ulch. *kexere-ču-*. See TMC 1, 445.

An onomatopoeic root; the correspondences, however, are quite regular, and it may well be common Altaic.

\****kēt*V** go: Turk. \**gēt-*; Mong. \**ködel-* (<\**kedöl-*); Kor. \**kād-*; Jap. \**kājuáp-*.

Turk. \*ge(:)t- go (away): OTurk. *ket-*; Turk. *git-*; Tat. *kit-*; Az. *get-*; Turkm. *git-*; Kirg. *ket-*. See VEWT 258. Vowel length can be reconstructed on indirect evidence (voicing -t- > -d- in forms like Az. *gediš* 'going away' etc.).

Mong. \*ködel- (<\*kedöl-) move: MMong. *ködel-*; Khalkh. *xödl-*; Kalm. *ködl-*; Dong. *gožialu-*; Bao. *gudəl-*; Dag. *xudala-*; Yogh. *gödöl-*; Monguor. *Gudoli-*.

Kor. \*kād- walk: Phyon. *kad-*; MKor. *kād-*.

Jap. \*kājuáp- walk: OJ *kajwop-*; Tok. *kàyo-u*.

\***kōk** 'e blue, green: Turk. \*gōk; Mong. \*köke; TM \*kuku.

Turk. \*gōk blue 1: green: OTurk. *kök*; Turk. *gök*; Tat. *kük*; Az. *gōj*; Turkm. *gōk*; Chuv. *kōvak*; Yak. *küöq* 1; Tuv. *kök*; Kirg. *kök*; Kaz. *kök*; Balk. *kök*; Karakalp. *kök*. See VEWT 287a, TMN 3, 640 ff, EDT 708-9. In most languages means also 'sky'.

Mong. \*köke blue, green: MMong. *kökö*, WMong. *köke*; Khalkh. *xöx*; Kalm. *kökö*; Dong. *kugiə*; Bao. *kugo*; Dag. *kukw*; Yogh. *hgö*; Monguor. *k'uguo*.

Tung. \*kuku blue: Lit. Manch. *kuku*; Evenk. *kuku*, *kuku-šin*. See TMC 1, 426.

See VEWT 287, KW 236.

\***kūčV** (~-ū-) power: Turk. \*gūč; Mong. \*küčü-n; TM \*kusū-.

Turk. \*gūč power: OTurk. *küč*; Turk. *gūž*; Turkm. *gūč*; Yak. *kūs*; Kaz. *küş*. See VEWT 306.

Mong. \*küčü-n power, strength: MMong. *küčü-n*; Khalkh. *guč*; Bao. *kučü*; Dag. *kuč*; Yogh. *kužən*; Monguor. *kužə*.

Tung. \*kusū- to fight 1: fight 2: strength, power: Neg. *kusī-*, *kusun* 2; Lit. Manch. *xusun* 2; Nan. *kusū* 2; Ulch. *kusu(n)* 2; Orok. *kusu(n)* 2; Zhurzh. *hūh-sūn* 2; Evenk. *kusī-*, *kusīn* 1.

In АПиПЯЯ (p. 77) the root was compared with PJ \*kisV- 'to contest'. The latter, however, has better Tungus parallels: TM \*gali- 'to contest' (TMC 1, 138) < PA \*gaÍV.

\***mōrV** (~-ō-) sand, dust: Turk. *bōr*; Kor. \*mòr(η)ái.



Turk. \**bōr* chalk 1: earth 2: clay: Tat. *bur*; Chuv. *porä*; Yak. *buor* 1; Tuv. *por* 2. VEWT 80b.

Kor. \**mōr(η)ái* sand: Phyon. *morä*; Chon. *morä*; Ph.-Nam. *morä*; Kyon. *mōre*; Ham. *mōrā*; Choj. *mollä*; Seoul. *morä*; Kan. *morä*; MKor. *mōr'ái*.

See SKE 151 (a Turkic-Korean isogloss).

\**ńālV* raw, fresh: Turk. \**jāl-il*; Mong. \**nil(a)-*; TM \**ńali-*; Kor. \**nār*; Jap. <\**nà*>.

Turk. \**jāl-il* green 1: very young 2: to be yellow: OTurk. *jašil*; Turk. *ješil*; Tat. *jäšel*; Uzb. *jašil*; Uigh. *ješil*; S.-Yugh. *jahsil*; Az. *jašil*; Turkm. *jāšil*; Yak. *saha-r-* 2; Tuv. *čaš* 1; Kirg. *žašil*; Kaz. *žasil*; Nog. *jasil*; Bash. *jäšel*; Balk. *žašil*; Gag. *ješil*; Crim. *ješli*; Karakalp. *žasil*; Sal. *jäšil*. Derived from PT \**jāl* 'young, green vegetables'. This root is often mixed with homophonous \**jāl* 'tear' and \**jāl* 'age, year' (all three roots have different Altaic etymologies).

Mong. \**nil(a)-* raw 1: newborn: MMong. *nilqa* 1, *nilayun*; Khalkh. *ńalx*; Kalm. *nilχā* 1; Dag. *ńalka*; Monguor. *narGā* 1.

Tung. \**ńali-* fresh 1: meat: Neg. *ńali-xin*; Manch. *jali* 1; Lit. Manch. *jali* 1; Nan. *ńalkī*; Ulch. *ńālu(n)*; Orok. *nālu/ńālu*; Zhurzh. *jali* 1; Evenk. *ńalikin*. See TMC 1, 340, 630. Length in Ulch. and Orok. may be secondary (due to the loss of -k-).

Kor. \**nār* smth. raw, fresh: Phyon. *nal*; MKor. *nār*.

Jap. \**nà* greens, vegetables: OJ *na*; Tok. *ná*.

Some prosodic irregularities (length in Ulch., Orok., low tone in PJ \**nà*) could be perhaps explained by a mixture of two roots: \**ńālV* 'young, fresh' and \**ńālV* 'age'. The two roots are opposed in Korean (*nār* vs. *ná(h)*) and Mong. (*nila-* vs. *na(l)-sun*).

\**ńārV* young; spring, summer: Turk. \**jār*; Mong. \**nirai*; TM \**ńar-gu-*; Kor. \**ńjārí-m*; Jap. \**nátù*.

Turk. \**jār* spring: OTurk. *jaz*; Tat. *jaz*; Turkm. *jāz*; Chuv. *śur*; Yak. *sās*. See VEWT 193.

Mong. \**dūri* form, outlook: MMong. *dūri*.

Tung. \**ńar-gu-* new, fresh 1: young elk 2: young willow: Lit. Manch. *ńarxu-n*; *ńarxu-ča* 1; Nan. *ńargi* 2; Evenk. *ńargu-čān* 1. See TMC 635, 639.

Kor. \**ði-* to surround, encircle: Phyon. *e-u-da*; MKor. *ði-'i-ta*, *ði-uə-*.

Jap. \**nátù* summer: OJ *natu*; Tok. *natsú*; Kyo. *nátsù*; Kag. *nátsù*.

See АПиПЯЯ 74.

\****ńāŋń*** *V* South (wind), warm season: Turk. \**jāj*; TM \**ńeŋńe*; Jap. \**mínámí*.

Turk. \**jāj* summer 1: summer pasture: OTurk. *jaj*; Turk. *jaj-la* 1; Turkm. *jāj-la* 1; Yak. *sajin*. See VEWT 179.

Tung. \**ńeŋńe* spring: Neg. *ńeŋńe*; Lit. Manch. *ńeŋńeri*; Nan. *ńeŋńe*; Ulch. *ńeŋńe*; Orok. *ńeŋńē* / *neŋne*; Zhurzh. *niēh-niēn-'óh-lîn*; Evenk. *ńeŋńe*. TMC 1, 653-4.

Jap. \**mínámí* South wind 1: South: OJ *mínámí*; Tok. *mìnami*; Kag. *mínàmì*. RJ *mínámí*.

\****ńīk*** *V* (~*k'*) to weep, cry: Turk. \**jīg-(la-)*; Jap. \**nák-*.

Turk. \**jīg-(la-)* to weep, cry: OTurk. *ig-la-*; Tat. *jīla-*; Uigh. *ayla-*; S.-Yugh. *jiyla-*; Turkm. *āy-la-*; Hak. *ī*; Balk. *zila-*. See VEWT 8.

Jap. \**nák-* to weep, cry: OJ *nak-*; Tok. *nak-ú*; Kyo. *nák-ú*; Kag. *nák-ù*.

\****ŋēn*** *V* to threaten: Turk. \**jān-*; TM \**ŋene(-ńči-)*.

Turk. \**jān-* to threaten: OTurk. *jan-*; Tat. *jan-*; Yak. *sān-*; Bash. *jan-*. VEWT 184.

Tung. \**ŋene(-ńči-)* to attack 2 to tease, to oppress: Lit. Manch. *neči-* 2; Evenk. *ŋene-ńče-*. Cf. also Ud. *ŋene-usi-* 'to strike'. See TMC 1, 671.

Mong. *žanu-* is probably borrowed from Turk. The Turk.-TM comparison belongs to A. Dybo.

\****ŋēne*** to go (down, away): Turk. \**ēn-*; TM \**ŋene-*; Kor. \**nāń(ǎ-)*; Jap. \**ín-*.

Turk. \**ēn-* to go down: OTurk. *en-*; Tat. *in-*; Turkm. *īn-*; Chuv. *an-*; Kaz. *en-*. Cf. also Khaladzh *īn-* id. See VEWT 43.

Tung. \**ηene-* go, walk: Neg. *ηene-* / *gene-*; Lit. Manch. *genu-* (вместе); Nan. *ene-*; Ulch. *ηenewu*; Orok. *ηene-*; Zhurzh. *ηenexie*; Evenk. *ηene-*. TMC 1, 669-671.

Kor. \**nàń(ǎ́)-* go, move forward: Phyon. *naa-kada*; MKor. *nàń-, nǎńǎ́-*.

Jap. \**ín-* go, leave: OJ *in-* (RJ *ín-u*).

See АПиПЯЯ 18, 292.

\**ōrV (~ō̄-)* to plait, weave: Turk. \**ōr-*; Jap. \**ór-*.

Turk. \**ōr-* to plait 1: rope, cable: OTurk. *ör-*; Turkm. *ōr-*; Chuv. *vøren* 1. See VEWT 373-4.

Jap. \**ór-* to weave: OJ *or-*; Tok. *ór-u*. For accent cf. RJ *ór-ù* (modern dialects have merged phonetically *ór-ù* 'to weave' and *wòr-ù* 'to bend', which are well distinguished in early sources).

The Turk. form can be alternatively compared with TM \**poro-*, \**pori-* 'turn round, spin', Mong. *hor-či-* id. (see TMC 2, 47, 334); the Turk.-Jap. comparison seems closer semantically.

\**ōr'V* middle, inside: Turk. \**ōr'*; Mong. \**örü*; TM \**uri*; Jap. \**útì*.

Turk. \**ōr'* inside, the essential part 2 self: OTurk. *öz*; Turkm. *öz* 2; Chuv. *var*; Yak. *üös*. See VEWT 376-7.

Mong. \**örü* inside, breast: WMong. *örü*.

Tung. \**uri* stomach, belly 2 breast-collar: Neg. *uji-pun* 2; Ulch. *uru-ptu(n)* 2; Evenk. *ur, uri-gde; uri-ptun* 2. See TMC 2, 281.

Jap. \**útì* middle, inside: OJ *uti*; Tok. *ùchi*; Kyo. *úchí*; Kag. *úchi*. Cf. RJ *útì* (the Kyoto form points to a variant \**útí*).

\**ōt'V* old: Turk. \**ōte-*; Mong. \**öte-*; TM \**uta-kān*; Jap. \**ótánà*.

Turk. \**ōte-* old: Chuv. *vadǎ*. An isolated Chuv. form, however, with good external parallels (Chuv. *va-* points only to PT \**ō̄-*).

Mong. \**öte-* old man 1: grow old: WMong. *öte-gü; öte-l-, ötü-l* 1; Kalm. *ötəgə; ötl-*.

Tung. \**uta-kān* old age: Evenk. *utakān*. Cf. also Even. *uta-qan* 'old woman'. See TMC 2, 293.

Jap. \**ótá-nà* grown-up man, aged person: OJ *otona*; Tok. *òtona*; Kyo. *òtónà*; Kag. *òtónà*.

See KW 302.

\**p'járV* to split; crack, precipice: Turk. \**jār*; Mong. \**her-gi*; TM \**piri*.

Turk. \**jār* to split 1: precipice, steep bank 2: split, crack: OTurk. *jar-*, *jar* 1; Turk. *jar-*, *jar* 1; Az. *jar-*, *jar-iG* 2, *jar-Gan* 1; Turkm. *jār-*, *jār* 1; Chuv. *śurǎ-*, *śir* 1; Yak. *sīr-*, *sīr* 1. See VEWT 188-9.

Mong. \**her-gi* steep bank: MMong. *hergi*; Khalkh. *arag*; Dag. *arigi*; Yogh. *eryə*; Monguor. *xerge*.

Tung. \**piri* to split 1: split, crack 2: steep (slope, bank): Lit. Manch. *fěre-*; *fěre-n*, *fi-qtu* 1; Orok. *pīri-kte* 1; Evenk. *hir-ke-*; *hiri-kte* 1; *hir-ki* 2. Length in Orok. is obviously secondary (there are no traces of it in other languages). Cf. also Even. *hir* 'split, crack', *hiri-le* 'rock, cliff'. See TMC 2, 327.

For a possible Korean parallel see under \**p'iūIV*. Cf. perhaps also OJ (dialectal) *pidipa* 'bank' (< \**piti* + \**ipa* 'rock, cliff'?).

\**p'iūIV* way, path; patch, precipice: Turk. \**jōl*; TM \**pile-*; Kor. \**pjār-*.

Turk. \**jōl* road 1: fate, luck: OTurk. *jol*; Turk. *jol*; Tat. *jul*; Uzb. *jūl*; Uigh. *jol*; S.-Yugh. *jol*; Az. *jol*; Turkm. *jōl*; Hak. *čol*; Chuv. *śol*; Yak. *suol*; Tuv. *čol* 1; Kirg. *žol*; Kaz. *žol*; Nog. *jol*; Bash. *jul*; Balk. *žol*; Gag. *jol*; Crim. *jol*; Karakalp. *žol*; Sal. *jo(:)l*. See VEWT 205-6, EDT 917.

Tung. \**pile-* thawed patch 1: open (ground): Neg. *xilexe*; Lit. Manch. *fili-ta-χun* 1; Evenk. *hilekē*; *kēn* 1. See TMC 2, 324 (Evenk. has also the pure root *hile*).

Kor. \**pjār-* precipice; road above precipice: Phyon. *pjəran*, *pjəre*, *pjəru* 1; MKor. *pjəró*.

Mong. *žol* 'luck', usually compared to PT \**jōl* (see VEWT 206 etc.), should be rather considered as a loanword (because of

the specific meaning). The TM form is compared to Kor. *pəl* 'meadow, plain' (SKE 196), for which another etymology is given in АПИПЯЯ 67. Note, however, that Kor. *pjə̀r-* may be also derived from PA *\*p'iārV* 'split, precipice' (q. v.).

**\*p'ārV** be tired: Turk. *\*ār-*; Mong. *\*hari-*; TM *\*paru-*; Kor. *\*pə̀r-*; Jap. *\*pátá-*.

Turk. *\*ār-* be tired 1: become lean: OTurk. *ar-*; Uigh. *ar-*; Turkm. *ār-*; Chuv. *ir-*; Yak. *ir-* 1. VEWT 22.

Mong. *\*hari-* be tired, exhausted: MMong. *hari-*; Kalm. *ar-zu-*.

Tung. *\*paru-* to faint, feel giddy: Lit. Manch. *fara-*; Nan. *farinda-*; Evenk. *harū-*. See TMC 2, 317-318.

Kor. *\*pə̀r-* to try, endeavour, earn: Phyon. *pəl-da*; MKor. *pə̀r-ta*.

Jap. *\*pátá-ra-k-* to work: OJ *fatarak-* (MJ); Tok. *hátarak-u*; Kyo. *hátarák-ú*; Kag. *hatarák-u*. Cf. also *\*pátá-* / *\*pàtá-* 'to end, be exhausted' (with accent variation, see АПИПЯЯ 139).

See АПИПЯЯ 73.

**\*p'āriV** worm, beetle; bee: Turk. *\*āri*; TM *\*piru*; Kor. *\*pə̀r-*; Jap. *\*pátí*.

Turk. *\*āri* wasp, bee: Turkm. *ari*; Kaz. *ara*. Length is indicated by Khaladzh *hāri*. See VEWT 25.

Tung. *\*piru* worm (in meat) 1: moth 2: beetle: Lit. Manch. *f'aru*; Nan. *pīro* 1; Ulch. *piru(n)* 1; Orok. *paraу* 2. See TMC 2, 37.

Kor. *\*pə̀r-* 1 worm 2 bee: Phyon. *palle* 1, *pəl* 2; MKor. *pə̀r'ái* 1, *pə̀r* / *pə̀rí* 2.

Jap. *\*pátí* bee: OJ *pati*; Tok. *hāchi*; Kyo. *háchí*; Kag. *háchì*. See АПИПЯЯ 67, 297 (although the roots 'beetle, worm' and 'bee' are separated there.) Perhaps one should reconstruct a form like *\*p'ājrV* (cf. a somewhat strange vocalism in TM).

**\*p'āk'V** to file, polish, rub: Turk. *\*ākā-*; TM *\*piki-*; Jap. *\*pík-*.

Turk. \**ākā-* to file 1: file (n.) 2: polished, even: OTurk. *ikā-*;  
Turk. *ājā* 1; Tat. *egā-*; Turkm. *īge* 1; Chuv. *jaGa* 2. See VEWT 38.

Tung. \**piki-* to rub: Neg. *xixi-*; Evenk. *xiki-*. See TMC 323.

Jap. \**pik-* to file, to saw: OJ *pik-*; Tok. *hìk-u*; Kyo. *hík-ú*; Kag. *hík-ù*.

Comparison of the Turk. form with PTM \**pīwē-* 'to whet' is impossible for phonetic reasons.

\**p̄ōlV* wet, succulent; grass, plant: Turk. \**öl*; Mong. \**föle*;  
Kor. \**p̄ìrhí-*.

Turk. \**öl* wet 1: marsh 2: hay stack: OTurk. *öl*; Turk. *öl* 1;  
Turkm. *öl*; Chuv. *valem* 2; Yak. *üöl*; Tuv. *öl*; Kirg. *öl*. See VEWT  
371a, TMN 2,161-2. The common Turk. derivate \**ölän* means 'rich  
grass' (hence Chuv. *valem*).

Mong. \*(*f*)*öle* fresh, moist: WMong. *ölü, öle*; Kalm. *ötwər*.

Kor. \**p̄ìrhí-* green: Phyon. *phuri-*; MKor. *phìrì-*.

See SKE 215, KW 295, VEWT 371.

\**p̄ōr̄V* top: Turk. \**ūr̄* (/ \**ōr̄*); Mong. \**horai*; TM \**poro-n*; Jap.  
\**p̄árà*.

Turk. \**ūr̄* (/ \**ōr̄*) on top, high above 1 upper part: OTurk.  
*üzä / özä*; Turk. *üzär* 1; Yak. *ūsä, üösä*. A common Turkic derivate is  
\**ūr̄-t* (with secondary vowel shortening): OT *üst*, Turkm. *üst*, Tat.  
*ös*, Khaladzh. *ist* etc. 'upper part'. See VEWT 523, 524.

Mong. \**horai* top, top of head: MMong. *horai*; Khalkh. *oroi*.

Tung. \**poro-n* top (of head), top 1: tuft, forelock: Neg.  
*xojo(n)*; Lit. Manch. *foron* 1; Nan. *porō*; Ulch. *poro(n)*; Orok. *poro(n)*;  
Evenk. *xoron*. See TMC 2, 334.

Jap. \**p̄árà* cloak on top of a rider's gear; top of carriage: OJ  
*foro* (MJ); Tok. *hóro*; Kyo. *hórò*; Kag. *hórò*. The Tokyo form is  
probably borrowed from the old capital (Kyoto) region -  
otherwise accentologically \**hòro* would be expected; the Kyoto  
and Kagoshima forms point unambiguously to PJ \**p̄árà*.

\**pāl̄ŋa* palm (of hand): Turk. \**āja* (< \**āŋa*); Mong. \**halaga(n)*;  
TM \**pańŋa*; Kor. \**pāl̄h*.

Turk. *\*āja* (< *\*āḡa*) palm (of hand): OTurk. *aja*; S.-Yugh. *χaja*, *χajan*; Turkm. *āja*; Hak. *aja*; Kaz. *aja*. See VEWT 10.

Mong. *\*halaga(n)* palm (of hand): MMong. *halaGa(n)*; Khalkh. *alga*; Bao. *həlgə*; Dag. *χaləg*; Yogh. *halavan*; Monguor. *χalGa*.

Tung. *\*pańḡa* palm (of hand): Neg. *xańḡa*; Lit. Manch. *falaḡGu*; Nan. *paiḡa*; Ulch. *pańa*; Orok. *xaḡḡa* / *xaḡa*; Evenk. *xanḡa*. See TMC 2, 314. All languages, except Manchu, reflect *\*pańḡa*; Manchu probably reflects a more archaic variant *\*pal(i)ḡa*, simplified to *\*pańḡa* elsewhere.

Kor. *\*pālḡ* arm: Phyon. *phal*; MKor. *phāl*.

See OCHЯ 3, 93-95.

*\*pēlV* to run, ride, hurry: Turk. *\*jāl-*; TM *\*peli-n-*.

Turk. *\*jāl-* to ride, trot: OTurk. *jāl-*; Turk. *jäl-*; Tat. *žil-*; Yak. *siäl-*; Kaz. *žel-*. See VEWT 195.

Tung. *\*peli-n-* to hurry: Nan. *penin-*; Orok. *pelin-*; Evenk. *helin-(če)-*. See TMC 2,364.

*\*pōjV* child, young (of animals); person: Turk. *\*bōj-tak*; TM *\*puj(u)-*, *\*puj-kte*; Jap. *\*pítà*.

Turk. *\*bōj-tak* young lamb: Chuv. *putek*; Kaz. *bojdak*. See VEWT 77-8.

Tung. *\*puj(u)-*, *\*puj-kte* small 1: child: Neg. *xute* 1; Nan. *pikte* 1; Ulch. *pikte* 1; Orok. *putte* 1; Evenk. *xujukūn*, *xute* 1. See TMC 2, 338, 357-358.

Jap. *\*pítà* person: OJ *pito*; Tok. *hitó*; Kyo. *hító*; Shu. *tčú*.

*\*siūnV* fade, extinguish: Turk. *\*sōn-*; Mong. *\*sönü-*; TM *\*sī-*; Jap. *\*sín-*.

Turk. *\*sōn-* fade: OTurk. *sōn-*; Turk. *sōn-*; Tat. *sün-*; Az. *sōn-*; Turkm. *sōn-*; Chuv. *sün-*. See VEWT 430b.

Mong. *\*sönü-* fade, extinguish, be ended: WMong. *sönü-*; Khalkh. *sönö-*; Kalm. *sōn-*; Dag. *suntu-*; Monguor. *sunō-*.

Tung. *\*sī-* extinguish: Neg. *sī-w-*; Evenk. *sī-*. See TMC 2, 73.

Jap. \**sín-* die: OJ *sin-*; Tok. *shínu*; Kyo. *sínu*; Kag. *kešíń*; Nas. *šin-*; Shu. *šin-*; Hat. *şın-*; Yon. *nní-*.

\**sēri* know; beware, feel: Turk. \**ser-* (~*-ē-*); Mong. \**seri-*; TM \**sā-*; Kor. \**sari-/səri-*; Jap. \**sír-*.

Turk. \**ser-* (~*-ē-*) feel, understand 1: doubt: OTurk. *sez-*; Turk. *sez-*; Az. *sez-*; Turkm. *seza(wār)*; Hak. *sis-*; Tuv. *sezik* 2; Kirg. *sez-*. Available data are not enough to establish vowel length. See VEWT 413, EDT 860-1.

Mong. \**seri-* wake; notice: MMong. *sere-*; Khalkh. *sere-*; Kalm. *ser-*; Dong. *širi-*; Bao. *serə-*; Dag. *sər-*; Yogh. *ser-*; Monguor. *sari-*.

Tung. \**sā-* know: Neg. *sā-*; Manch. *sa-*; Lit. Manch. *sa-*; Nan. *sā-*; Ulch. *sāwu*; Orok. *sā-*; Zhurzh. *čanxi*; Evenk. *sā-*. See TMC 2, 49-51.

Kor. \**sari-* / \**səri-* beware, be careful: Phyon. *sari-* / *səri-*.

Jap. \**sír-* know: OJ *sir-*; Tok. *shiru*; Kyo. *sitteru*; Shu. *šij-*; Yon. *č-*.

\**šik* *V* urine, to urinate: Turk. \**sīg*; Mong. \**siye-*, \**siye-sün*; TM \**šikē-n*.

Turk. \**sīg* urine 1: to urinate: OTurk. *sid-* 1; Turk. *sidik*; Az. *sidik*; Turkm. *sīdik*; Chuv. *šār*; Yak. *ik*. Only Yak. reflects the original \**sīg*; all other languages reflect a derivate \**sīg-t-* / \**sīg-t-* (present also outside Turkic). See VEWT 421.

Mong. \**siye-*, \**siye-sün* to urinate 1: urine: MMong. *siye-*, *siyesün* 1; Khalkh. *šē-*, *šēs* 1; Dong. *šə*, *šəsun* 1; Bao. *šia-*, *šiasun* 1; Dag. *sā-*, *sās* 1; Yogh. *ši*, *šišən* 1; Monguor. *šē-*, *šēsə* 1.

Tung. \**šikē-n* urine: Neg. *čixēn*; Lit. Manch. *sike*; Nan. *čičē*; Ulch. *čige(n)* / *čē(n)*; Orok. *čie(n)*; Evenk. *čikēn*. Also reflected are derivatives: \**šikelte-* / \**šikte-* 'to urinate' (Evenk. *čikelte-*, Ud. *čėäкта-*, Manch. *site-*), \**šike-či-* id. (Neg. *čixēt-/č-*, Oroch. *čāčiči-*, Ulch. *čičiči-*, Nan. *čičiči-*).

Irregular voicing in Mong. can be explained by the root's expressive nature.



**\*t'īrV** to press, make a support: Turk. *\*dīrā-*; TM *\*tirē-*; Kor. *\*tīrì-*; Jap. *\*tī(n)tī-*.

Tung. *\*tirē-* to press, insert, make a support: Neg. *tijē-*; Lit. Manch. *čir-ge-*; Nan. *čire*; Ulch. *tire-*; Orok. *čire-*; Evenk. *tirē-*. See TMC 2, 187-8.

Kor. *\*tīrì-* to press, to stick: Phyon. *čiri-da*; MKor. *tīrì-tá*.

Jap. *\*tī(n)tī-* to press, compress: OJ *tidi-ma-*, *tidi-k-* (~-t-); Tok. *chijime-ru*; Kyo. *chijímé-rú*; Kag. *chìjímé-rú*. The word is witnessed rather late, so the medial -d- may either be a result of late secondary voicing (as in a number of other cases), or else reflect a \*-nt- cluster in PJ.

See SKE 35. One of the cases of secondary voicing (before an original long vowel) in Turkic.

**\*t'īrV** leg; knee: Turk. *\*dīr*; Mong. *\*türei*; TM *\*türē-kse*; Kor. *\*tārí*.

Turk. *\*dīr* knee: OTurk. *tiz*; Turk. *diz*; Tat. *tez*; Uzb. *tiz*; Uigh. *tiz*; S.-Yugh. *diz*; Az. *diz*; Turkm. *dīz*; Hak. *tezäk*; Chuv. *čërguśsi*; Yak. (VEWT) *tüsäx*; Tuv. *diskek*; Kirg. *tize*; Nog. *tiz*; Balk. *tiz*; Gag. *dis'*; Crim. *tiz*; Karakalp. *dize*; Sal. *tüzy*, *tizy*. See VEWT 482a, EDT 570b.

Mong. *\*türei* top (of boot): MMong. *türei*; Khalkh. *türij*.

Tung. *\*türē-(kse)* top (of boot): Neg. *tijekse*; Lit. Manch. *ture*; Nan. *turekse*; Ulch. *turekse*; Orok. *tureske*; Evenk. *tirēkse*. See TMC 2, 188.

Kor. *\*tārí* leg: Phyon. *tari*; MKor. *tārí*.

Despite АПИПЯЯ 282, Mongolian and Tungus forms should be still considered as genetically related to PT *\*dīr* (*\*dīr*), and the reconstruction must be changed accordingly. This is one of the few cases of secondary voicing in PT (before original long vowels): the original voiceless reflex is preserved within the Common Turkic derivate *\*tir-sgäk* 'elbow' (= TM *\*türē-kse*).

**\*t'ōrV** to be weak, hungry, unable: Turk. *\*Tōr-*; TM *\*turku-* / *\*turke-*.

Turk. \**Tōr-* to become lean, hungry 1: lean, hungry: OTurk. *tor-*; Uigh. *toryγ* 1; Yak. *tuor-*. See VEWT 489.

Tung. \**turku-* / \**turke-* be unable: Neg. *tujku-*; Ulch. *teten-*; Orok. *teten-*; Evenk. *turku-*. See TMC 2, 220.

\**t'ōrV* young animal: Turk. \**tōrum*; Mong. \**torui*; TM \**toro-kī*; Turk. \**tōrum* young camel: OTurk. *torum*; Turk. *torum*; Turkm. *tōrum*. See VEWT 491.

Mong. \**torui* young pig: WMong. *torui*; Khalkh. *toroi*.

Tung. \**toro-kī* (~-*ū*) boar: Neg. *torokī*; Evenk. *torokī*. See TMC 2, 200. Yak. *toroku* 'boar' < TM (not vice versa).

\**t'ōlV* (\**t'ōl-k'V*) dream, divination: Turk. \**dūl* (*/\*dūl*); Mong. \**tölgü*; TM \**tolki-n*.

Turk. \**dūl* (*/\*dūl*) dream: OTurk. *tüš, tül*; Turk. *düş*; Turkm. *düş*; Chuv. *tölk*; Yak. *tül*; Tuv. *düş*; Kirg. *tüş*. See VEWT 507, EDT 559, 561, 490.

Mong. \**tölgü* prediction, divination: MMong. *tölgü*; Kalm. *tölge*.

Tung. \**tolki-n* dream: Neg. *tolkin*; Lit. Manch. *tolgin / tolxin*; Nan. *tolkī*; Ulch. *tolčī(n)*; Orok. *tolčī(n)*; Zhurzh. *t'ōh-hīng*; Evenk. *tolkin*. See TMC 2, 195.

PT has \**d-* here because of secondary voicing before a long vowel, as in a number of other cases; despite АПиПЯЯ 97, 276 this (more traditional) comparison seems now preferable to me.

\**tiārV* narrow; short: Turk. \**dār*; Kor. \**tjār-*.

Turk. \**dār* narrow: OTurk. *tar*; Turk. *dar*; Az. *dar*; Turkm. *dār*; Yak. *tār*. See VEWT 463.

Kor. \**tjār-* short: Phyon. *čalp-*; MKor. *tjār-*.

\**tiōla* stone: Turk. \**dāl*; Mong. \**čilayun*; TM \**žola*; Kor. \**tōrh*; Jap. \*(*d*)*isì*.

Turk. \**dāl* stone: OTurk. *taš*; Turk. *taš*; Tat. *taš*; Uzb. *toš*; Uigh. *taš*; S.-Yugh. *das*; Az. *daš*; Turkm. *dāš*; Hak. *tas*; Chuv. *čol*;

Yak. *tās*; Tuv. *daš*; Kirg. *taš*; Kaz. *tas*; Nog. *tas*; Bash. *taš*; Balk. *taš*; Gag. *taš*; Crim. *taš*; Karakalp. *tas*; Sal. *daš*. See VEWT 466a, TMN 2, 437-8, EDT 557.

Mong. \**čilayun* stone: MMong. *čilaʔun*; Khalkh. *čulū*; Kalm. *čolūn*; Dag. *čoloo*; Yogh. *čaluu*.

Tung. \**žola* stone: Neg. *žolo*; Nan. *žolo*; Ulch. *žolo*; Orok. *žolo*; Evenk. *žolo*. See TMC 1, 263.

Kor. \**tōrh* stone: Phyon. *tol*; Chon. *tol*; Ph.-Nam. *tolmerji*; Kyon. *tōl*; Ham. *tōl*; Choj. *tol*; Seoul. *tol*; Kan. *tol*; MKor. *tōr(h)*.

Jap. \*(*d*)*isi* stone 1: sand: OJ *isa-gwo* 1; Tok. *ishí*; Kag. *íši*; Hat. *íši*; OJ *isi*; Kyo. *isi*; Nas. *íši*; Shu. *íši*; Hat. *íshòN* 1; Yon. *ìčì-bùgù*.

\**tīn V* (~*t'*-) blood; spirit, breath: Turk. \**tīn* (~*d*-); Mong. \**či-sun*; Jap. \**tí*.

Turk. \**tīn* ~ \**dīn* spirit, breath: OTurk. *tīn*; Chuv. *čēm*; Yak. *tīn*. See VEWT 478, EDT 512.

Mong. \**či-sun* blood: MMong. *čisun*; Khalkh. *cus*; Kalm. *cusñ*; Dong. *čusun*; Bao. *čisuŋ*; Dag. *čos*; Yogh. *čusun*; Monguor. *č'əzu*.

Jap. \**tí* blood: OJ *ti*; Tok. *chì*; Kyo. *cîi*; Kag. *čí*; Nas. *čí*; Shu. *čí*; Hat. *zî*; Yon. *čí*.

\**žāj V* sharp point, arrow: Turk. \**jāj* (/ \**jān*); TM \**žeje*; Jap. \**da*.

Turk. \**jāj* (/ \**jān*) bow: OTurk. *ja*; Turkm. *jāj*; Chuv. *śu*; Yak. *sā*; Bash. *jājä*, *jan*. Final \*-*n* is reflected also in Shor. *nan* 'bow', *jan-čak* 'small bow'. See VEWT 186.

Tung. \**žeje* sharp point, blade 1: sharp: Neg. *žeje*; Lit. Manch. *žejen*; Nan. *žeje*; Ulch. *žeje*; Orok. *deje*; Zhurzh. *čōh-nì*- 1; Evenk. *žeje*. A derivate \**žeje-n* is reflected (besides Man. *žejen*), in Even. *žejēn*, Neg. *žejēn* 'sharp edge, border', Nan. *žein-ge* 'needle'. See TMC 1, 282-3.

Jap. \**da* arrow: OJ *ja*; Tok. *já*; Kyo. *jâ*; Kag. *já*. The root reveals some accent variations: RJ has both *já* and *jà*; Kyoto and Kagoshima point to \**dá* (or \**dâ*), while Tokyo - to \**dà*.

Nasalisation in PT may be due to old suffixation (cf. PT \**žeje-n*), or else to contamination with another root: cf. PTM \**najü* 'pole, handle' (= PJ \**nə* 'bamboo for arrows'). A derivate \**žāj-nV* may be also reflected in PT \**jānu-* (~-a-) 'to whet, sharpen', Mong. *žanu-* id. (if not < Turk.).

## Type 2

\****bārV*** right, straight, direct: Turk. \**bār-*; Mong. \**bara-γun*; TM \**bāru*; Kor. <\**pàrà-*>; Jap. \**pità*.

Turk. \**bār-* right, South 1: this side, here 2: in front: OTurk. *bār*; *berü* 1; Turk. *beri* 1; Turkm. *bāri-k* 1; Yak. *beriet* 2. See VEWT 76, EDT 355-356. Length in Turkm. is probably secondary (*bāri-* < \**bār-rü-*): cf. Khaladzh. *bārä* 'here, this side', corresponding well to Yak.

Mong. \**bara-γun* right-hand side; west: MMong. *barayun*; Khalkh. *barā*; Dong. *borun*; Dag. *barəŋ*; Yogh. *barūn*; Monguor. *varəŋ*.

Tung. \**bāru* in the direction of (postpos.): Lit. Manch. *baru*; Nan. *bāro-*; Ulch. *bā-* / *bē-*; Orok. *bāru-*. See TMC 1, 75.

Kor. \**pàrà-* direct, straight; right: Phyon. *pari-da*; MKor. *pàrà-tá*.

Jap. \**pità* direct, straight: OJ *pita*; RJ *fità*.

See SKE 191. Korean has an irregular low tone (\**pá-* would be expected): cf. the length variation in Turk.?

\****bīkV*** side (of body), thigh: Turk. \**bikīn*; TM \**bōkan*; Jap. \**bàkì*.

Turk. \**bikīn* side (of body), thigh: OTurk. *bikīn*; Turkm. *biqīn*; Kirg. *mikīn*. See VEWT 73.

Tung. \**bōkan* thigh: Lit. Manch. *buxi*; Evenk. *bōkan*. Cf. also Even. *bōqəŋ*, Ud. *bō* id. See TMC 1, 90.

Jap. \**bàkì* side (of body): OJ *waki*; Tok. *wakí*; Kyo. *wákí*; Kag. *wàkí*. RJ *wàkì*.

\***č'ōk** *V* to peck, gouge: Turk. \*čok-; Mong. \*čoki-; TM \*čōk(i)-.

Turk. \*čok- to peck: OTurk. čok-; Turk. čoku-; Turkm. čoq-; Hak. soχ-la-. See VEWT 114, EDT 406.

Mong. \*čoki- to strike, punish: WMong. čoki-; Kalm. tsok-.

Tung. \*čōk(i)- to gauge 1: to stick into 2: to peck 3: to dig, delve: Neg. čok-; Lit. Manch. čoki- 1; Nan. čoqi- 2; Ulch. čoqi- 2; Evenk. čōk- 3. For vowel length cf. also Oroch. čūku 'chisel' (= Nan. čō / čoqo 'beak'). See TMC 2, 403.

\***dāl** *V* to close, hide: Turk. \*jal-; Mong. \*dal-; TM \*dāl(i)-; Turk. \*jal- to close, hide: OTurk. jaš-; Turkm. jaš-; Yak. sas-. See VEWT 192.

Mong. \*dal- hidden, secret: MMong. dal-da; Khalkh. dald; Tung. \*dāl(i)- to close: Lit. Manch. dali-; Nan. dālīa-; Ulch. dālī-; Evenk. dal(i)-. See TMC 1, 192.

\***dāl** *V* glue; to glue, stick: Turk. \*jeli-m; TM \*dāl-bu-.

Turk. \*jeli-m glue: OTurk. jelim; Turkm. jelim; Chuv. śiləm; Yak. silim. See VEWT 196.

Tung. \*dāl-bu- to glue, stick to: Neg. dālbu-; Lit. Manch. dalu-; Nan. dālpo-; Ulch. darpu-; Evenk. dalbu-. Cf. also Even. dālbu-id.; Evenk. dāl- 'to stick to, be boring' (which probably reflects the original *suffixless* stem \*dāl(a)-). See TMC 1, 192.

\***dūlī** (~**ū-**) warm: Turk. \*jili-g; Mong. \*dula-yan; TM \*dūl-; Jap. \*dū.

Turk. \*jili-g warm 1: warmish: OTurk. jiliy; Turk. ilik; Tat. žilī; Uzb. iliq; Uigh. ilman; S.-Yugh. iliy; Az. jiliG 1; Turkm. jili; Yak. silās; Tuv. čilig; Kirg. žiluu; Kaz. žili; Nog. jili; Bash. jili; Balk. žili; Gag. ili; Karakalp. žillī; Sal. jili. Derived from \*jili- 'to be warm'. See VEWT 200b, EDT 919a, 925a.

Mong. \*dula-yan warm: MMong. dulaʔan; Khalkh. dulān; Kalm. dulān; Dag. dulaan; Yogh. dulaan.

Tung. \*dūl- to warm (of sun): Evenk. dūl-. See TMC 1, 221 (also Even. dūl-).

Jap. \**dù* warm water: OJ *ju*; Tok. *yú*.

\****dūrVηV*** to hurry, run: Turk. \**jügür-*; TM \**dūrVηü-*.

Turk. \**jügür-* to hurry, run: OTurk. *jügür-*; Uzb. *jügir-*; Turkmen. *jüvür-*; Yak. *sūr-*. See VEWT 212.

Tung. \**dūrVηü-* to leap, gallop: Ulch. *derin-*; Orok. *dūruŋu-*; Evenk. *dūrēŋi-*. See TMC 1, 226.

The comparison was suggested by O. Mudrak.

\****ēŋujV*** to bind (to a pack, saddle): Turk. \**edŋä-r*; Mong. \**emeŋe-l*; TM \**ūñē-*.

Turk. \**edŋä-r* saddle: OTurk. *ädär*; Turk. *äjär*; Az. *äjär*; Hak. *izer*; Chuv. *jēner*; Yak. *īŋīr*. See VEWT 36.

Mong. \**emeŋe-l* saddle: MMong. *emeŋel*; Khalkh. *emēl*; Bao. *eməl*; Dag. *amāl*; Yogh. *emel*; Monguor. *imel*.

Tung. \**ūñē-* to bind (a pack, to a pack) 1: long wool (for binding, felting) 2: silk string (for binding): Lit. Manch. *uñe-le* 1, *uñe-ri* 2; Evenk. *ūñē-*. Cf. also Even. *ōñe-* 'to bind'. See TMC 2, 277.

The PT reconstruction and the Turk.-Mong. comparison was suggested by O. Mudrak.

\****gūni*** think: Mong. \**guni-*; TM \**gūn-*; Jap. \**kànà-m-*.

Mong. \**guni-* be sad, anxious: WMong. *γuni-*; Khalkh. *guni-*; Kalm. *Guñ-*.

Tung. \**gūn-* say 1: think: Neg. *gūn-*; Lit. Manch. *Guni-* 1; Nan. *un(de)-*; Ulch. *wembuwu*; Orok. *un-*; Zhurzh. *xen-duru*; Evenk. *gūn-*. See TMC 1, 171.

Jap. \**kànà-m-* like, wish: OJ *konom-*; Tok. *konóm-*.

See Poppe 1960, 24, KW 155, OCHЯ 1, 234.

\****gūlV*** (~*ū-*) dwelling, cottage: Turk. \**gūl*; TM \**gūle*; Jap. \**kùrà*.

Turk. \**gūl* vestibule, inner porch 1: house 2: home, dwelling-place: Turk. *gil* 2 (dial.); Chuv. *kil*, *kül* 1; Yak. *külä*. Yak. has also a variant *külä*, secondarily borrowed from Tungus: see VEWT 270.

Tung. \**gūle* hut, dwelling-place: Evenk. *gūle*. See TMC 1, 171.

Jap. \**kùrà* shed: OJ *kura*; Tok. *kurá*; Kyo. *kúrà*; Kag. *kùrá*. Cf. RJ *kùrà* id.

\**īn V* to live: TM \**īn-*; Jap. \**inà-tí*.

Tung. \**īn-* to live 1: alive: Neg. *īn-*; Nan. *in-kī* 1; Evenk. *in-*. Cf. also Even. *īn-* id. (Evenk. has a secondary shortening). See TMC 1, 315.

Jap. \**inà-tí* life: OJ *inoti*; Tok. *inochi*; Kyo. *inóchi*; Kag. *inóchi*. Cf. RJ *inòtí*. The word is obviously an old compound with \**-tí* 'spirit; blood'.

\**k' uām V* soul, spirit: Turk. \**kam*; TM \*(*x*)*ōmī*; Jap. \**kàmù-i*.

Turk. \**kam* shaman 1: to shamanise, come into movement: OTurk. *kam*; Turk. *kam-la-* 1; Yak. *χam-nā-* 1. See VEWT 228.

Tung. \*(*x*)*ōmī* soul: Neg. *omī*; Evenk. *ōmī*. See TMC 2, 16.

Jap. \**kàmù-i* god, spirit: OJ *kamji*; Tok. *kamí*; Kyo. *kámi*; Kag. *kàmí*. RJ *kàmì*.

\**k' ol' V* a k. of bird: Turk. \**kuł*; TM \**xōlī*.

Turk. \**kuł* bird 1: duck 2: feather: OTurk. *quš*; Turk. *kuš*; Tat. *koš*; Uzb. *quš*; Uigh. *quš*; S.-Yugh. *Gus*; Az. *Guš*; Turkm. *Guš*; Hak. *xus*; Yak. *kus* 1; Tuv. *ku'š*; Kirg. *kuš*; Kaz. *qus*; Nog. *kus*; *kušin* 2; Bash. *koš*; Balk. *quš*; Gag. *quš*; Crim. *quš*; Karakalp. *qus*; Sal. *Guš*. VEWT 305a; TMN 3, 547-8; EDT 670b (T8ff, U8ff).

Tung. \**xōlī* raven, crow: Neg. *ōlī*; Nan. *χolī*; Evenk. *ōlī*. See TMC 2, 13.

\**k' ūk' V* root, stem; tooth: Turk. \**kök*; TM \**xūkte*; Jap. \**kùkù-i*.

Turk. \**kök* root 1: root (of grass): OTurk. *kök*; Turk. *kök*; Az. *kök*; Turkm. *kök*; Tuv. *kö'k*; Gag. *kök*. See VEWT 287a, EDT 708.

Tung. \**xūkte* tooth: Neg. *ikte*; Manch. *viixə*; Lit. Manch. *weixe*; Nan. *xuktele*; Zhurzh. *jujxe*; Evenk. *ikte*. See TMC 1, 300.

Jap. \**kùkù-i* stem, stalk: OJ *kukji*; Tok. *kukí*.

For semantics cf. Proto-Indo-European *\*ǵombho-* 'stem, shoot; peg, nail; tooth'.

**\*k'ūt(V)kV** a k. of insect: Turk. *\*katki-č*; TM *\*xūkte*; Kor. *\*kúitákí*.

Turk. *\*katku-č* a stinging insect: OTurk. *katkuč*. See EDT 599, ΔTC.

Tung. *\*xūkte* nit: Neg. *ūkte*; Nan. *xuktu*; Ulch. *xuktu*; Orok. *xuktu*; Evenk. *ūkte*. See TMC 2, 254.

Kor. *\*kúitákí* larva: Phyon. *kudəgi*; MKor. *kúitákí*.

**\*k'ūjIV** ear; hear: Turk. *\*kul-kak*; Mong. *\*kul-ku*; TM *\*xūl-*; Kor. *\*kúí*; Jap. *\*ki-k-*.

Turk. *\*kul-kak* ear: OTurk. *qulqaq*; Turk. *kulak*; Tat. *kolak*; Uzb. *quloq*; Uigh. *qulaq*; S.-Yugh. *qulaq*; Az. *GulaG*; Turkm. *Gulaq*; Hak. *xulax*; Chuv. *xōlyə*; Yak. *kulgāk*; Tuv. *kulak*; Kirg. *kulak*; Kaz. *qulaq*; Nog. *kulak*; Bash. *kolak*; Balk. *qulaq*; Gag. *qulaq*; Crim. *qulax*; Karakalp. *qulaq*; Sal. *Gulaχ*. See VEWT 298b, EDT 620a (T8, U8ff).

Mong. *\*kul-ku* ear-wax 1: with hanging ears: WMong. *qulki*; *qulqur* 1; Khalkh. *xulx*; Kalm. *χulχă*; Dag. *xolgi*.

Tung. *\*xūl-* to sound, resound: Neg. *ol-bun-*; Nan. *xōl-žj-*; Ulch. *xol-dj-*; Orok. *xul-bun-*; Evenk. *ūl-ta-*. See TMC 2, 263.

Kor. *\*kúí* ear: Phyon. *kwi*; Chon. *kū* L; Ph.-Nam. *kūi*; Kyon. *kwî*; Ham. *kūi*; Choj. *kūi*; Seoul. *kFi*; Kan. *kū*; MKor. *kúí*.

Jap. *\*ki-k-* hear: OJ *kík-*; Tok. *kiku*; Kyo. *kíku*; Kag. *kíT*; Nas. *k'ikj-*; Shu. *čjč-*; Hat. *sĭk-*; Yon. *k'*.

**\*kūk'u** swan: Turk. *\*Kugu*; TM *\*kūku*.

Turk. *\*Kugu* swan: OTurk. *kuyu*, *koyu*; Turk. *koyu*; Turkm. *Guv*; Yak. *kuba*. See VEWT 275.

Tung. *\*kūku* swan: Nan. *kuku*; Ulch. *kuku*; Orok. *kuku* / *kukku*. Length is well preserved in Oroch. *kūku*, Ud. *kūxi* 'swan'. See TMC 1, 426-427.

**\*kūIV** servant, slave: Turk. *\*kul*; TM *\*kēlu-me*.



Turk. *\*kul* slave, servant: OTurk. *kul*; Turk. *kul*; Turkm. *Gul*; Yak. *kulut*. See VEWT 297.

Tung. *\*kēlu-me* servant: Orok. *kele*; Evenk. *kēlūme*. Cf. also Even. *kēlme* id. See TMC 1, 447.

*\*māŋi* self, oneself; body, shape: Turk. *\*bāŋ*; Mong. *\*men-dü*; TM *\*mēn*; Kor. *\*móm*; Jap. <*\*mú-i*>, *\*mànə*.

Turk. *\*bāŋ* a mole on the face 1: face colour; method, way of: OTurk. *bāŋ*, (Uig.) *māŋ* 1; Turk. *ben*; Turkm. *māŋ*; Yak. *māŋ*.

A common Turkic derivate is *\*bāŋi-r* 'face', *\*bāŋi-r-ä* 'to look alike'. See VEWT 70, 334, EDT 346. Turk. > Mong. *menge* 'mole (on body)'.

Mong. *\*mendü* sane, healthy: MMong. *mendü*; Khalkh. *mend*; Kalm. *mendä*.

Tung. *\*mēn* self, oneself: Neg. *mēn*; Lit. Manch. *meni meni*; Nan. *mene*; Ulch. *men, mene*; Orok. *mēn*; Evenk. *mēn*. See TMC 1, 568.

Kor. *\*móm* body: Phyon. *mom* (*mōm*); MKor. *móm*.

Jap. *\*mú-i* body, essence 1: full 2: meat: OJ *mji*; Tok. *mì*; Shu. *mī*- 1; Hat. *mě* 2.

See SKE 151, Martin 1966, 226. Semantically the root is very interesting (cf. the wide range of meanings in Turkic). The Jap. high tone is irregular (as well as the variation in length in Korean) and may be caused by the loss of nasal and reduction (?). A form preserving the final nasal and very probably belonging to the same root may be PJ *\*mànə* (OJ *mono*, RJ *mòndə*) 'thing, method, being' (cf. the semantic development in other languages).

*\*mūk* *V* snake: Mong. *\*mogai*; TM *\*mūkū*; Kor. *\*mVk-*.

Mong. *\*mogai* snake: MMong. *moqai*; Khalkh. *mogoi*; Kalm. *moyā*; Dong. *moyəi*; Bao. *moGəi*; Dag. *mogw*; Yogh. *moyui*; Monguor. *muGuē*.

Tung. *\*mūkū* snake: Neg. *mīxi*; Manch. *meixə*; Lit. Manch. *meixe*; Nan. *muik'i*; Ulch. *mui*; Orok. *mui* / *mujyi*; Zhurzh. *mujxe*. See TMC 1, 537-538.

Kor. *\*mVk-* a big black snake: Phyon. *mək-kuri*.

An expressive transformation of the same root may be PT *\*bak(k)a* / *\*mak(k)a* 'frog' (Turkm. *Gur-baqa*, Yak. *baya* etc. > Mong. *baqa*).

*\*mūri* water: Turk. *\*(-mur)*; Mong. *\*müre-n*; TM *\*mū*; Kor. *\*mír*; Jap. <*\*mí(-n-tú)*>.

Mong. *\*müre-n* river: MMong. *müren*; Khalkh. *mörön*; Kalm. *mörn̄*; Dong. *moron*; Bao. *moruŋ*; Dag. *mur*; Yogh. *mereen*; Monguor. *murōn*.

Tung. *\*mū* water: Neg. *mū*; Manch. *mukee*, *mukuu*; Lit. Manch. *muke*; Nan. *muke*; Ulch. *mū*; Orok. *mū*; Zhurzh. *mo*; Evenk. *mū*. See TMC 1, 548-549.

Kor. *\*mír* water: Phyon. *mul*; Chon. *mul*; Ph.-Nam. *mul*; Kyon. *m̄ul*; Ham. *mul*; Choj. *mul*; Seoul. *mul*; Kan. *mul*; MKor. *mír*.

Jap. *\*mí(-n-tú)* water: OJ *midu*; Tok. *m̄izu*; Kyo. *m̄izu*; Kag. *m̄iT*; Nas. *m̄ūz̄i*; Shu. *m̄iž̄i*; Hat. *m̄iž̄i*; Yon. *m̄iŃ*.

Turkic has preserved the root only within the archaic compound *\*jag-mur* 'rain'. Tone in Jap. is irregular (probably because of reduction and the position within a compound); suffixless *\*mi* is also attested in OJ, but its accent is unknown.

*\*riiā* eye: Turk. <*\*jāl* tear>; Mong. *\*nidün*; TM *\*riiā-sa*; Kor. *\*nún*; Jap. *\*m̄aiN*, *\*mi-*.

Turk. *\*jāl* tear: OTurk. *jaš*; Turk. *jaš*; Az. *jaš*; Turkm. *jāš*; Chuv. *koš-sól*; Tuv. *čaš*; Kirg. *žaš*. VEWT 192, EDT 972 (because of external evidence should be distinguished both from *\*jāl* 'age' and *\*jāl* 'fresh, green').

Mong. *\*nidün* eye: MMong. *nidün*; Khalkh. *nüd*; Kalm. *nüdn̄*; Dong. *nudun*; Bao. *nəduŋ*; Dag. *nid*; Yogh. *nudun*; Monguor. *nudu*.

Tung. *\*riiā-sa* eye: Neg. *êsa*; Manch. *jasə*; Lit. Manch. *jasə*; Nan. (*ri*)*isala*; Ulch. *isal(i)*; Orok. *isal*; Zhurzh. *riiāci*; Evenk. *êsa*. See TMC 1, 291-292.

Kor. *\*nún* eye: Phyon. *nun*; Chon. *nun*; Ph.-Nam. *nun*; Kyon. *nún*; Ham. *n̄un*; Choj. *nun*; Seoul. *nun*; Kan. *nun*; MKor. *nún*.

Jap. \**màiN* eye: OJ *me*; Tok. *mé*; Kyo. *mèe*; Kag. *mé*; Nas. *mí*; Shu. *mí*; Hat. *mìN*; Yon. *mì*.

Jap. \**mì*- see: OJ *mì*-; Tok. *míru*; Kyo. *mìru*; Kag. *míT*; Nas. *mj*-; Shu. *nǐž*-; Hat. *mì*-; Yon. *nn*-.

For the Turkic form cf. Mong. \**ni-l-mu-sun*, TM \*(i)*ńa-mū*-, MKor. *nún-mír*, PJ \**na-mi(n)tV* 'tear' < Alt. \**ńiā(l)-mūri* 'water of the eye'. PT irregularly preserves vowel length here: it is probably due to the influence of other homophonic and synonymic roots.

\**ńābV* front, in front: TM \**ńāw*-; Jap. \**màpiâ*.

Tung. \**ńāw*- before, in front 1: go forward: Orok. *nawra*- 1; Evenk. *ńāw-de*. See TMC 1, 627. A variant of the same stem is probably PTM \**ńō*- 'in front, to be in front of' (TMC 1, 641-642).

Jap. \**màpiâ* front, before 1: thou: OJ *mape*; Tok. *omae* 1, *mae*; Kag. *omansá* 1.

\**ńāna* to turn back; again: Turk. \**jan*-; TM \**ńān*.

Turk. \**jan*- to turn back 1: again: OTurk. *jan*-, *jana*- 1; Turk. *jine* 1; Turkm. *jene* 1; Kirg. *jana* 1. See EDT 941, 943.

Tung. \**ńān* again, once more: Neg. *ńān*; Nan. *ńā*; Evenk. *ńān*. See TMC 1, 633.

\**ńīkV* nephew: Turk. \**jegin*; TM \**ńīkV*.

Turk. \**jegin* : OTurk. *jegän*, *jegin*; Turk. *jegen*, *jejen*; Turkm. *jegen*; Yak. *siän*; Kirg. *žēn*. See VEWT 194.

Tung. \**ńīkV* relative: Evenk. *ńīkī*. Cf. also Even. *ńōye* 'child of the younger sister; relative'. See TMC 637, 644.

\**ńūIV* to shave, scrape: Turk. \**jül*- / \**jul*-; Mong. \**žül-gü*-; TM \**ńūl(i)*-; Kor. \**ńārh*.

Turk. \**jül*- to shave 1: to tear off, scrape off 2: to polish: OTurk. *jüli*-; Turk. *jülü*-; Turkm. *jül-me*-; Yak. *sül*- 1. See VEWT 213.

Mong. \**žül-gü*- to shave, scrape: WMong. *žülgü*-, *žülgü*-; Kalm. *zülgə*-.

Tung. \**nūl(i)*- to shave (skin): Neg. *nūl*-; Evenk. *nūl*-. Cf. also Even. *nūl*- id. See TMC 1, 645.

Kor. \**nār*h blade: Phyon. *nal*; MKor. *nār*h.

\**ḡālV*hand: Turk. \**äl*, -ig; TM \**ḡāla*.

Turk. \**äl*, -ig hand 1: finger's breadth: OTurk. *elig*; Turk. *el*; S.-Yugh. *iliy*; Az. *äl*; Turkm. *el*; Chuv. *alǎ*; Yak. *ilī*; Tuv. *ilig* 1; Kirg. *eli* 1; Gag. *jel*; Sal. *el*. See VEWT 39, EDT 140-1.

Tung. \**ḡāla* hand: Neg. *ḡāla*; Manch. *Galə*; Lit. Manch. *gala*; Nan. *nana*; Ulch. *ḡāla*; Orok. *ḡala*; Zhurzh. *ḡala*; Evenk. *ḡāle*. See TMC 1, 656-657.

\**ḡēni* to take smb. with (oneself): Turk. \**jańa-l*-; TM \**ḡāni*-.

Turk. \**jańa-l*- take smb. with oneself, follow smb. 1: close to each other, in a row: Chuv. *junažar* 1; Yak. *sājis*-. See VEWT 186.

Tung. \**ḡāni*- to fetch, go to take smth. or smb.: Nan. *ḡāni*-; Ulch. *ḡan-žū*-. See TMC 1, 657.

The etymology was suggested by A. Dybo.

\**ḡōlV*long; extend: TM \**ḡōli*-; Kor. \**nār*-; Jap. \**nàn-ká*-.

Tung. \**ḡōli*- long: Neg. *ḡonom*; Manch. *Goləmin*; Lit. Manch. *golmin*; Nan. *orm'ḡ*-; Ulch. *walmḡ*; Orok. *ḡonimi*; Zhurzh. *ḡolmigi*; Evenk. *ḡōnim*, *gōnim*. See TMC 1, 664-665.

Kor. \**nār*- be extended, extend: Phyon. *nīl-da*, *nīru-da*; MKor. *nār*í-.

Jap. \**nànká*- long: OJ *naga*-; Tok. *nagái*; Kyo. *náNai*; Kag. *náge*; Nas. *nàgà*-; Shu. *nágá*-; Hat. *nà*-; Yon. *ná*-.

The PTM form should be reconstructed with \*-l- (despite АПиПЯЯ 211); therefore it belongs here rather than to PT \**ōn*-, Mong. \**ōn*-.

\**ḡōrV*to surpass, win, contest: Turk. \**or*-; Mong. \**uri-ldu*-; TM \**ḡōr-ča*-.

Turk. \**or*- to surpass, win: OTurk. *oz*-; Turkm. *oz*-; Kaz. *oz*-; Balk. *oz*-. See VEWT 367.

Mong. *\*uri-ldu-* to contest: MMong. *uri-ldu-*; Kalm. *urəld-*.

Tung. *\*ηōr-ča-* to contest, to wrestle: Neg. *mōjčan-*; Nan. *wāčā-*; Ulch. *wāčā-*; Orok. *wōto-* / *ηōto-*; Evenk. *ηōrča-*. See TMC 1, 665.

The original meaning of the root is probably 'foremost, first, earliest': cf. PT *\*or-a* 'earlier', Mong. *\*uri-d* 'formerly'.

*\*ηuāη* V fir-tree: TM *\*ηuāη-ta*; Jap. *\*màmì* (~-ua-).

Tung. *\*ηuāη-ta* fir-tree: Neg. *ηāηta*; Lit. Manch. *wantaχa*; Ulch. *wan̄ta*; Orok. *wan̄ta* / *wan̄ita*; Evenk. *ηāηte*. See TMC 1, 657-658.

Jap. *\*màmì* (~-ua-) fir-tree: OJ *momi* (~-uo-). RJ *mòmì*.

See АПиПЯЯ 81.

*\*ηūηte* root: Mong. *\*ündü-sün*; TM *\*ηūηte*; Jap. *\*mətà*.

Mong. *\*ündü-sün* root: WMong. *ündüsün*; Khalkh. *ündes*; Kalm. *ündüsñ*; Dag. *undus*.

Tung. *\*ηūηte* root: Neg. *ηηte*; Nan. *muikte*; Ulch. *ηuiqte*; Orok. *muikte*; Evenk. *ηīηte*, *nīηte*. See TMC 1, 662.

Jap. *\*mətà* root, foundation: OJ *moto*; Tok. *motó*.

*\*ηūηč'í* thin, narrow; short: Turk. *\*jinč-gä*; Mong. *\*üčü-ken*; TM *\*ηūč'i-(kV)*; Jap. *\*insiká-*.

Turk. *\*jinč-gä* thin: OTurk. *jinčkä*; Turk. *inže*; Tat. *nečkä*; Uzb. *ingička*; Uigh. *inčikä*; S.-Yugh. *šige*; Az. *inžä*; Turk. *inčä* (= *jinčä*); Hak. *niske*; Chuv. *šinze*; Yak. *siñniges*; Tuv. *čingge*; Kirg. *ičke*; Nog. *injšiske*; Balk. *inčge*; Gag. *inžä*; Crim. *inžä*; Karakalp. *žinjšiske*; Sal. *läšgi*. See VEWT 203b, EDT 944-5.

Mong. *\*üčü-ken* small: MMong. *üčügen*; Khalkh. *öčūxen*; Kalm. *üčūkn̄*; Bao. *žigan̄*; Dag. *učəəkəη*.

Tung. *\*ηūč'i-* small 1: tiny: Neg. *ñitkūn*; Lit. Manch. *isuxun* 1; Nan. *nūč'i*; Ulch. *ñūč'i*; Orok. *nūč'i*; Zhurzh. *osuwan*; Evenk. *nitkūn* (dial.). See TMC 1, 589-590

Jap. *\*insiká-* short: OJ *mizika-*; Tok. *mijiká*; Kyo. *mízikai*; Kag. *mišiké*; Nas. *ikkjá-*; Shu. *inčá-*.

In АПИПЯЯ there are two roots - \**ijč'i* and \**ηūč'i* - which should rather be reduced to one (with a very similar morphological structure in all languages).

\**ōIV* be, become; come: Turk. \**ol-ur-*, \**ol(u)-tur-*; TM \**ō-*; Kor. \**ó-*.

Turk. \**ol-ur-*, \**ol(u)-tur-* sit: OTurk. *ol(d)ur-*; Turk. *otur-*; Tat. *utir-*; Uzb. *ūtir-*; Uigh. *oltur-*; Az. *otur-*; Turkmen. *otur-*; Hak. *odir-*; Chuv. *lar-*; Yak. *olor-*; Tuv. *olur-*; Kirg. *otur-*; Kaz. *otir-*; Nog. *oltir-*; Bash. *ultir-*; Balk. *oltur-*; Gag. *otur-*; Crim. *otur-*; Karakalp. *otir-*; Sal. *o(:)ht(ir)-*.

Tung. \**ō-* make; become 1: new: Neg. *ō-*; Lit. Manch. *o-*; Nan. *o-*; Ulch. *o-*; Orok. *o-*; Zhurzh. /*wo-fei*/; Evenk. *ōmakta* 1, *ō-*. See TMC 2, 3-4.

Kor. \**ó-* come: Phyon. *o-*; MKor. *ó-*.

\**p'āIV* field, level ground: Turk. \**ala-n* / \**ala-η*; TM \**pālin-*; Kor. \**pār(h)-*; Jap. \**pàrà*.

Turk. \**ala-n* / \**ala-η* level ground, plain: OTurk. *alan*; Turk. *alan*; Turkmen. *alan*; Yak. *alā-s*.

Tung. \**pālin-* meadow, open ground: Even. *hālinrǎ*. See TMC 2, 313.

Kor. \**pār(h)-* fields, meadows: Phyon. *pəl*, *phəl*; MKor. *phári*.

Jap. \**pàrà* level ground, plain: OJ *para*; Tok. *hára*; Kyo. *hára*; Kag. *hàrá*. Cf. RJ *fàrà*; Tokyo reflects rather \**pàrá*.

See АПИПЯЯ 67.

\**p'āIČV* to be humble, ashamed: Turk. \**alča-*; Mong. \*(h)*alči-ja-*; TM \**pālže-*; Jap. \**pànti*.

Turk. \**alča-* gentle, humble 1: base, vile 2: to offend, humiliate 3: to become weak, tired: OTurk. *alčak*; Turk. *alča-* 2, *alčak* 1; Tat. *alži-* 3; Turkmen. *alčak*; Yak. *alčayij-* 3. See VEWT 16-17, EDT 129.

Mong. \*(h)*alči-ja-* to pamper (children): WMong. *alčija-*; Kalm. *alčā-*.

Tung. \**pālže-* to be ashamed: Neg. *xalža-*; Lit. Manch. *fānci-xāša-*; Nan. *χalža-*; Orok. *xalžē-*; Evenk. *hālže-*. See TMC 2, 313.

Jap. \**pànti* shame: OJ *padi*; Tok. *hají*; Kyo. *háji*; Kag. *hàjí*. Cf. RJ *fàdì*.

\**p* *āt* *V* to strike, hit: Turk. \**at-*; TM \**pāt(i)-*; Kor. \**pat-*; Jap. \**pàtà-k-*.

Turk. \**at-* to throw, shoot: OTurk. *at-*; Turk. *at-*; Turkm. *at-*; Chuv. *ut-, it-*; Yak. *it-*. See VEWT 31. Cf. also Khaladzh *hat-* id.

Tung. \**pāt(i)-* to strike, hit 1: clapper, beetle: Neg. *pātī* 1; Nan. *pāčī-čī-*; *pačī* 1; Ulch. *pātī-čī-*, *pātī-la-*; *pātī* 1; Orok. *pāt-ču-*. See TMC 2, 35.

Kor. \**pat-* to strike against, push, gore with the horns: Phyon. *pat-ta* (-*d-*).

Jap. \**pàtà-k-* to flap, clap: OJ *fatak-* (MJ); Tok. *haták-u*; Kyo. *háták-ú*; Kag. *hàtàk-ú*.

\**p* *āte* meat; skin: Turk. \**ät*; TM \**pētē*; Jap. \**pà(n)tá*.

Turk. \**ät* meat: OTurk. *et*; Turk. *et*; Tat. *it*; Uzb. *et*; S.-Yugh. *jeht*; Az. *ät*; Turkm. *et*; Hak. *it*; Chuv. *üt*; Yak. *et*; Tuv. *e't*; Kirg. *et*; Kaz. *et*; Nog. *et*; Bash. *it*; Balk. *et*; Gag. *jet'*; Crim. *et*; Karakalp. *et*; Sal. *äht*. See VEWT 52a, EDT 33b.

Tung. \**pētē* seal fat 1: seal skin 2: seal: Neg. *xētē* 0,1; Lit. Manch. *fetxi* 1; Orok. *pete* 1; Evenk. *hētē*. See TMC 2, 372. Cf. also Orok. *peteske* 'шкура нерпы'.

Jap. \**pà(n)tá* skin: OJ *pada*; Tok. *háda*.

For semantics cf. MKor. *sār* 'flesh, muscle', 'skin'.

\**sāg* *V* healthy; blood: Turk. \**sag*; Mong. \**sajin*; TM \**sēgV-*.

Turk. \**sag* healthy 1: whole, all: OTurk. *say*; Turk. *say*; Az. *say*; Turkm. *saG*; Chuv. *sivā*; Kirg. *soo*; Nog. *sawlaj* 1. See TMN 3, 334-5; EDT 803.

Mong. \**sajin* good: MMong. *sajin*; Khalkh. *sain*; Kalm. *sān*; Dong. *sain*; Bao. *saŋ*; Dag. *sain*; Yogh. *sain*; Monguor. *sēn*.

Tung. \*sēgV- blood 1: red: Neg. *sēkse*; Manch. *šijə*; Lit. Manch. *senji*; Nan. *sēkse*; Ulch. *sēkse*; Orok. *sekse*; Zhurzh. *seinji*; Evenk. *sēkse*, Ulch. *sēgže(n)* 1; Orok. *segde* 1. See TMC 2, 136, 138-139. The pure root is preserved in Evenk. *sēyi-*, Neg. *sē-* 'to bleed, flow (of blood)'.

KW 319 (Turk.-Mong.). The semantic correlation 'blood': 'health, healthy' is rather usual, thus the TM form belongs here with great probability.

\*šōlV juice, fluid: Turk. \*söl; Mong. \*silö; TM \*šōla (~ č-); Jap. \*sirú.

Turk. \*söl juice in meat, lymph 1: juice: OTurk. *söl*; Tat. *sül*, *sül-gän*; Yak. *il-gü*; Kaz. *söl*. See VEWT 430, EDT 824.

Mong. \*silö soup: MMong. *silü(n)*; Khalkh. *šol*; Dong. *šulia*; Bao. *šile*; Dag. *šil*; Yogh. *šalen*; Monguor. *šilö*.

Tung. \*šōla (~ č-) soup: Nan. *čölö*; Ulch. *čōlo(n)*. Cf. also Ud. *čolo* 'soup'. In Manchu s- would be expected - therefore Man. *čola-* / *čōla-* 'to roast, broil (in a kettle)' is most probably a result of interdialectal borrowing. The TM languages reflect also \*sile / \*silu 'soup' (see TMC 2, 85) which is a loanword from Mong.

Jap. \*sirú juice: OJ *siru*; Tok. *shíru*; Kyo. *shírú*; Kag. *shírú*. Cf. RJ *sirú*.

\*t'uaġk'V a horned animal: Turk. \*täkä; Mong. \*taki; TM \*tökī.

Turk. \*täkä he-goat: OTurk. *täkä*; Turk. *teke*; Turkm. *teke*; Chuv. *taGa*; Kaz. *tekä*. See VEWT 470. Turk. > Mong. *teke* 'he-goat' (> Manch., Sol. *texe* id.).

Mong. \*taki he-goat; wild horse: WMong. *taki*; Kalm. *täkä*.

Tung. \*tökī elk: Neg. *tökī*; Lit. Manch. *toχo*; Nan. *tō*; Ulch. *tō*; Orok. *tō*; Evenk. *tökī*. Cf. also Sol. *tōxi*, Even. *tökj*, Oroch. *tōki* id. See TMC 2, 192.

The etymology was suggested by O.Mudrak and appears quite probable.

\*t'āk'V a k. of aquatic animal: TM \*tākVr; Jap. \*takuà.



Tung. \**tākVr* shell, shelled animals 1: crab-octopus 2: horned beetle: Lit. Manch. *taχura*; Ulch. *tajra*; Orok. *tāχα* 1; Evenk. *tākre* 2. Cf. also Sol. *taχir* 'shell'. See TMC 2, 154.

Jap. \**takuà* octopus: OJ *takuo*; Tok. *táko*; Kyo. *tákò*; Kag. *tàkó*. The Tokyo form reflects a variant \**takuá*. Cf. RJ *tàkò*.

Cf. perhaps also WMong. *taqu* 'a k. of fish' (> Manch. *taqu*, Nan. *taqu* 'толстолобик').

\**t̄īnu* night, yesterday: Turk. \**tün*; TM \**tīnu-*.

Turk. \**tün* night 1: yesterday: OTurk. *tün*; Turk. *dün* 1; Tat. *tön*; Uzb. *tun*; Uigh. *tün*; S.-Yugh. *tune*; Az. *dünän* 1; Turkm. *dün* 1; Yak. *tün*; Tuv. *dün*; Kirg. *tün*; Kaz. *tun*; Nog. *tün*; Bash. *tön*; Balk. *tün*; Karakalp. *tün*. See VEWT 505a, EDT 513. Cf. also Turkm. (arch.) *tün* 'night', Yak. *tün* 'dark, darkness' (< \**tün-Vk*). The variant \**dün*, reflected in some languages, is obviously due to a secondary influence of \**dül* 'dream' q. v.

Tung. \**tīnu-* yesterday: Neg. *tīnuwej*; Orok. *čine* / *čínē*; Evenk. *tīnewe*. See TMC 2, 183-184.

\**t̄ūrV* hold, lift; take: TM \**tūrī-n-*; Kor. \**tir-*; Jap. \**tār-*.

Tung. \**tūrī-n* hold, support 1: support (n.): Neg. *tuju* 1; Nan. *turi-n-*, *turū-*; Ulch. *turu-wen-*; Orok. *toro-ηolo-*; Evenk. *tūrī-n*. See TMC 2, 220.

Kor. \**tir-* hold, lift: Phyon. *tīl-da*.

Jap. \**tār-* take 1: (caus.) give: OJ *tor-*; Tok. *tór-u*; Yon. *tùrà-* 1.

\**tāre* surface, skin; color: Turk. \**dāri*; Mong. \**dere* (?); TM \**dēre*; Jap. \*(*d*)*irə*.

Turk. \**dāri* skin: OTurk. *teri*; Turk. *deri*; Tat. *tire*; Uzb. *teri*; Uigh. *terä*; S.-Yugh. *teri*; Az. *dāri*; Turkm. *deri*; Hak. *tār*; Chuv. *tir*; Yak. *tirī*; Kirg. *teri*; Nog. *teri*; Bash. *tire*; Balk. *teri*; Gag. *deri*; Crim. *teri*; Karakalp. *teri*; Sal. *cīry*. VEWT 475b, EDT 530a.

Mong. \**dere* pillow: MMong. *dere*; Khalkh. *der*; Kalm. *derə*; Dag. *dərbə*; Monguor. *diere*.

Tung. \**dēre* surface 1: face: Neg. *deyel* 1; Lit. Manch. *dere* 1; Nan. *derey*, *derel* 1; Ulch. *dere(γ)* 1; Orok. *dere(l)* 1; Zhurzh. *l't'e-'o/* 1; Evenk. *dēr*. See TMC 1, 236 (cf. also Evenk. dial. *deri* 'skin from deer's head' - cf. the semantic development in Turk.)

Jap. \*(*d*)*irə* color: OJ *iro*; Tok. *iró*.

\****zōm*** *V* to close: Turk. \**jum-*; TM \**sōm-*; Kor. \**čām-*; Jap. \**sìmà-r-*.

Turk. \**jum-* to close (eyes, mouth): OTurk. *jum-* / *jüm-*; Turk. *jum-*; Turkm. *jum-*; Yak. *sim-*. See VEWT 210. Turk. > Wr. Mong. *žumuji-*, *žümüji-* 'be closed'.

Tung. \**sōm-* to close 1: to hide: Neg. *sōm-*; Lit. Manch. *somi-* 1; Ulch. *somī-*; Orok. *somī-*; Zhurzh. *sò-mî-* 1; Evenk. *sōm-*. See TMC 2, 109.

Kor. \**čām-* to be closed, shut; to hide, submerge: *čam-gi-da*; MKor. *čām-tá*.

Jap. \**sìmà-r-* to be closed, shut: OJ *sima-r-*; Tok. *shimár-u*; Kyo. *shímár-ú*; Kag. *shimàr-*.

\****zōn*** *V* a young animal: Turk. \**junt*; TM \**sōn-ŋa-* / \**sōn-da-*.

Turk. \**junt* horse, mare 2: 2-year-old mare: OTurk. *junt*; Yak. *sono-γos* 1. VEWT 211.

Tung. \**sōn-ŋa-* / \**sōn-da-* young deer, deer-calf: Neg. *sōnŋa-čān*; Orok. *sōndo(n)*; Evenk. *sōnŋā*. Cf. also Even. *hōnŋa-čān* id. See TMC 2, 110-111.

\****žōm*** *V* to think of, remember: Turk. \**jumu-ł-*; TM \**žōm-*; Jap. \**dàm-*.

Turk. \**jumu-ł-* necessity, need (\*'smth. that must be remembered'): OTurk. *jumuš*; Turkm. *jumuš*; Hak. *nimis*; Chuv. *šāmāl*. See VEWT 211.

Tung. \**žōm-* to remember: Neg. *žon-*; Lit. Manch. *žo-*, *žono-*; Nan. *žōmbo-*; Ulch. *žombu-*; Orok. *dōndu-*; Evenk. *žōn-*, *žōm-kit-*. Cf. also Sol. *žōn-*, *žōmū-*, Even. *žōn-*, *žōman-*. See TMC 1, 264.

Jap. \**dàm-* to recite; to count, to read: OJ *jom-*; Tok. *jóm-u*; Kyo. *jòm-ú*; Kag. *jòm-ú*.

There is also a number of exceptions, mostly demonstrating a tonal aberration in Korean-Japanese. Note that there are quite a few cases where the Japanese aberration occurs in a derivate verbal stem with productive -m- or -p- suffixes; morphological phenomena may possibly have affected original tonal oppositions in some cases. Below I list all exceptions known to me.

**\*ātV** step, walk: Turk. \*āt-; Mong. \*ada-; Jap. \*ājùm-.

Turk. \*āt- step 1: walk: Turk. *adım* (noun); Tat. *at-la-*; Turk. *āt-*; Hak. *alta-*; Chuv. *ot-, ut-* 1; Yak. *atillā-*; Sal. *ahvla-* 1. See VEWT 31a.

Mong. \*ada- hurry 1: hurried walking: WMong. *ada-γa*; *adam* 1; Kalm. *adyä-*; *adm̃* 1.

Jap. \*ājùm- walk: OJ *ajum-*; Tok. *ayum-u*; Kag. *ajúŃ*.

Jap. has irregular tone.

**\*āŋV** think, understand: Turk. \*āŋ, \*āŋ-la-; Mong. \*aŋ-; TM \*eŋē-; Jap. \*āmó-p-.

Turk. \*āŋ, \*āŋ-la- understand 1: intelligence 2: hear 3: discern (dial.): OTurk. *aŋla-*; Turk. *anla-*; Tat. *aŋ-γar-*; Uigh. *aŋla-* 2; S.-Yugh. *aŋna-* 2; Az. *anla-*; Turk. *āŋla-*, *āŋ* 1; Chuv. *ön* 1; Yak. *aŋlā-* 3; Kirg. *aŋ* 1. See VEWT 20b, TMN 2,130, EDT 165b, 186a.

Mong. \*aŋ- know, understand: WMong. *aŋ-zira-*.

Tung. \*eŋē- peer, investigate. See TMC 2, 458 (only Even. *eŋēli-*, *eŋēt-*).

Jap. \*āmó-p- think: OJ *omop-*; Tok. *omó-u*.

See ЭСТЯ 1, 154 (Turk.-Mong.). The Jap. word corresponds rather well except for the accent (one would expect a high tone in PJ).

**\*bārV** goods, possess, earn: Turk. \*bār; Mong. \*bari-; TM \*bara-; Kor. \*pə(:)r-; Jap. \*pàrá-p-.

Turk. \*bār there is, there are 1: all: OTurk. *bar*; Turk. *var*; Tat. *barčĭ* 1; Az. *var*; Turk. *bār*; Hak. *praj* 1; Chuv. *porě* 1, *por*; Yak.

*baar*; Tuv. *bar*; Kirg. *bar*; Balk. *barisi* 1. See VEWT 62a, EDT 353, 356-7.

Mong. \**bari*- take, hold: MMong. *bari*-; Khalkh. *bari*-; Kalm. *bär*-; Dong. *bari*-; Bao. *wara*-; Dag. *bari*-; Yogh. *bar*-; Monguor. *bari*-, *wari*-.

Tung. \**bara*- many 1: increase: Neg. *baja*; Lit. Manch. *baran*; Orok. *bara*; Evenk. *bara-ma*, *bara-l* 1. Some forms may be borrowed from Mong., but the root is still probably genuine. See TMC 1, 73.

Kor. \**pə(:)r*- earn: Phyon. *pəl-da*.

Jap. \**pàrá-p*- pay: OJ *parap*-; Tok. *hará-u*.

See KW 38, VEWT 62, TMC 1, 73; ОСНЯ 1, 175-176.

Correspondences are regular except for low tone in Jap. (one would rather expect \**pá*-).

\**č'āk* 'V time: Turk. \**čāk*; Mong. \**čag*; Kor. \**čək*; Jap. \**təkì*.

Turk. \**čāk* time 1: precisely, exactly: OTurk. *čak*; Turk. *čay*; Turkm. *čāG*; Hak. *saχ* 1; Chuv. *čuχ*. See VEWT 95.

Mong. \**čag* time: WMong. *čaG*.

Kor. \**čək* time: Phyon. *čək*; MKor. *čək*.

Jap. \**təkì* time: OJ *toki*; Tok. *tokí*. RJ *tòkì*.

See АПиПЯЯ 76. Jap. tone is irregular; it may be, however, due to the influence of another root (cf. TM \**žeki* 'always' /TMC 1, 283/, OJ *toko* 'always, eternally' /accent unknown/).

\**gābi* chew: Turk. \**gāb*-; Mong. \**kebi*-; TM \**kewe*; Jap. \**kùp*-.

Turk. \**gāb*- chew: OTurk. *kāv*-; Turk. *gevele*-; Az. *gāvälä*-; Turkm. *gāvü-še-me*-; Chuv. *kaule*-; Yak. *kābī*-; Kirg. *küj-šö*-. See VEWT 244.

Mong. \**kebi*- chew: WMong. *kebi*-; Kalm. *kew*-; Dag. *kəmə*-; Monguor. *kēji*-.

Tung. \**kewe* jaw: Evenk. *kewe*. See TMC 1, 442-443 (also Even. *kewē*).

Jap. \*kùp- eat: OJ *kup-*; Tok. *kú-u*; Kag. *kú*; Hat. *hò-*; Yon. *Fú-*.

Correspondences are regular except for low tone in Jap. (high tone would be expected).

\***kāma** be weak, oppress: Turk. \**Kāma-*; Mong. \**kama-*; TM \**kama-*; Kor. \**kam-*; Jap. \**kàmà-r-* (~*kuàmà-r-*).

Turk. \**Kāma-* become blinded, dumb 1: (set) teeth on edge: OTurk. *kama-*, *kama-š-*; Turkm. *gāmaš-ma-* 1; Mong. \**kama-* to be weak: WMong. *qama-*.

Tung. \**kama-* to oppress 1: prohibit, be unable to help 2: (being at a) loss: Neg. *kama-li-*; Nan. *qama-li-*; *qama* 2; Ulch. *qama-lu-*; Orok. *qama-lı-*; Evenk. *kama-*; *kama-lit-* 1. See TMC 1, 369.

Kor. \**kam-* to be unable to, to be insufficient for: Phyon. *kam-gi-da* (SKE 91-2).

Jap. \**kàmà-r-* (~*kuàmà-r-*) be in a difficult position: Tok. *komár-u*; Kyo. *kómár-u*; Kag. *kòmàr-ú*.

See SKE 91-2. The Kor. parallel is found only there; as for the Japanese word, it is not attested in any OC or MC sources, so the PJ reconstruction is uncertain.

\***kānu** (~**k** ˊ) to be satisfied: Turk. \**Kān-*; Mong. \**kanu-*; Jap. \**kànà-p-*.

Turk. \**Kān-* to be satisfied: OTurk. *kan-*; Turk. *kan-*; Turkm. *Gān-*; Yak. *χān-*. See VEWT 230.

Mong. \**kanu-* be satisfied, thankful: WMong. *qanu-*.

Jap. \**kànà-p-* to be fulfilled, satisfied; correspond: OJ *kanap-*; Tok. *kaná-u*; Kyo. *káná-ú*; Kag. *kàná-ù*. Cf. RJ *kànàf-ú*. All forms point to \**kànà-p-* except Kagoshima (< \**káná-p-*): is it an archaism (cf. the external evidence?).

See АПиПЯЯ 72. The Jap. tone is irregular.

\***pūń** *V* (~**p** ˊ) nose; smell, to smell: Mong. \**fūnir*; TM \**pūń-*; Jap. \**páná*.

Mong. \**fünir* smell; to smell 1: MMong. *hünir*; Khalkh. *üner*; Kalm. *ünř*; Dong. *funi-čiča-* 1; Bao. *hun-də-* 1; Dag. *xuunu-* 1; Yogh. *honər*; Monguor. *funir*.

Tung. \**pūn-* smell, to smell: Neg. *xun*; Lit. Manch. *fun*; Nan. *pū*; Ulch. *pū(n)*; Orok. *pū(n)*, *pūniye*; Evenk. *huíŋukte-*. See TMC 2, 349.

Jap. \**páná* nose: OJ *pana*; Tok. *hàna*; Kyo. *hána*; Kag. *hána*; Nas. *hàná*; Shu. *hánà*; Hat. *pàŋà*; Yon. *hàná-búru*.

In Jap. one would rather expect a low tone.

\**siārV* white; yellow: Turk. \**sāriğ*; Mong. \**sira*; TM \**siārū-*; Kor. \**hái-*; Jap. \**siruá-*.

Turk. \**sāriğ* yellow 1: white: OTurk. *sariğ*; Turk. *sari*; Tat. *sari*; Uzb. *sariq*; Uigh. *seriq*; S.-Yugh. *sariğ*; Az. *sari*; Turkm. *sāri*; Hak. *sariğ*; Chuv. *šorǎ* 1; Yak. *araGas*; Tuv. *sariğ*; Kirg. *sari*; Kaz. *sari*; Nog. *sari*; Bash. *harı*; Balk. *sari*; Gag. *sari*; Crim. *sari*; Karakalp. *sari*; Sal. *sa(:)ri*. See VEWT 403-4, EDT 848.

Mong. \**sira* yellow: MMong. *šira*; Khalkh. *šar*; Kalm. *šarǎ*; Dong. *šira*; Bao. *šira*; Dag. *šar*; Yogh. *šəra*; Monguor. *šira*.

Tung. \**siārū-* lightning, rainbow 1: light: Lit. Manch. *šari*, *ša-xun* 1; Orok. *šērro*, *širo*; Evenk. *šēru-n*. See TMC 2, 72, 381.

Kor. \**hái-* white: Phyon. *hi-*; MKor. *hái-*.

Jap. \**siruá-* white: OJ *sirwo-*; Tok. *shirói*; Kyo. *síroi*; Kag. *široka*; Nas. *širù-*; Shu. *šírú-*; Hat. *ssò-*; Yon. *tz?ù-*.

The Turk. length is irregular (perhaps one should consider contamination with another root, reflected in PTM \**siraŋa-* 'yellowish').

\**sīV* sharp stick; tooth: Turk. \**sīl* / \**sīl*; Mong. \**sidün*; TM \**sila(-bun)*; Kor. \**sár*; Jap. \**sàs-*, \**sàsì*.

Turk. \**sīl* / \**sīl* tooth 1: sharp stick: OTurk. *siš* 1; Turk. *šiš* 1; Az. *šiš* 1; Turkm. *čiš* 1; Hak. *sis* 1; Chuv. *šǎl*; Tuv. *šiš*; Kirg. *šiš*. See VEWT 424a, TMN 3, 324ff, EDT 856-7.

Mong. \**sidün* tooth: MMong. *šidün*; Khalkh. *šüd*; Kalm. *šüdñ*; Dong. *šidun*; Bao. *duŋ* / *šduŋ*; Dag. *šid*; Yogh. *šdən*; Monguor. *šdi*.

Tung. \**sila(-bun)* spit: Neg. *ṣilawun*; Lit. Manch. *šolon*; Nan. *ṣilpō*; Ulch. *ṣilopu(n)*; Orok. *ṣilopu(n)*; Evenk. *silawun*. See TMC 2, 82.

Kor. \**sár* arrow; sting: Phyon. *sal*; MKor. *sár*.

Jap. \**sàs-*, \**sàsì* prick, stab; sharp stick: OJ *sas-*, *sasi*; Tok. *sás-u*, *sashí*.

See VEWT 424a (Turk.-Tung.), АПиПЯЯ. The comparison with Kor. and Jap. seems very probable, although here we have a rather rare case of tonal irregularity: one would expect a low tone in Kor. and a high tone in Japanese.

\**sūn V* to stretch: Turk. \**sūn-*; Mong. \**sunu-*; TM \**sūn-*.

Turk. \**sūn-* to stretch, stretch out: OTurk. *sun-*; Turk. *sun-*; Yak. *ūn-*. See VEWT 432.

Mong. \**sunu-* to stretch out: WMong. *sunu-*; Kalm. *sun-*.

Tung. \**sūn-* to stretch out 1: become lean: Neg. *suŋ-gumži* 2; Lit. Manch. *suŋ-gi-* 1; Nan. *suŋ-gure* 2; Ulch. *suŋ-guža-* 3; Orok. *sun-* 3; Evenk. *sūn-*. Cf. also Sol. *sūnī-* 'to be stretched'. See TMC 2, 126-127.

A quite exceptional case of a  $\bar{V} : \bar{V}$  correspondence between PT and PTM (an old loanword?).

\**tām V* wall, roof: Turk. \**dām*; Mong. \**tama*; TM \**tamV-*; Kor. \**tám*.

Turk. \**dām* wall 1: house 2: roof: OTurk. *tam*; Turk. *dam* 2; Az. *dam* 2; Turkm. *tām* 2. See VEWT 459 (the root has an irregular \**t-/\*d-* variation).

Mong. \**tama* wall: WMong. *tama*.

Tung. \**tamV-* shed, cover (for a hut): Nan. *tamixj*. Cf. also Even. *tamana* 'cover (for a hut)'. See TMC 2, 159.

Kor. \**tám* wall: Phyon. *tam*; MKor. *tám*.

Although semantically quite plausible, phonetically there are difficulties: PT has a secondary voicing and Kor. has irregular high tone (not corresponding to PT length). See VEWT 459.

\**tūlk V* fox; wolf: Turk. \**tülki / tilkü*; TM \**tülge*; Jap. \**tuárá*.

Turk. \**tülki* / *tilkü* fox: OTurk. *tilkü*; Turk. *tilki*; Turkm. *tilki*; Chuv. *tilä*; Kaz. *tülkü*. See VEWT 480.

Tung. \**tülge* wolf: Sol. *tülge*. See TMC 2, 210.

Jap. \**tuára* tiger: OJ *tuora*; Tok. *tòra*; RJ *tórá*.

See АПиПЯЯ 70. Jap. high tone does not correspond to PTM length (the latter, however, is reconstructed only on the basis of the Sol. form and thus not reliable).

How can one explain the above correlation of vowel lengths and tones? At present I can see only one possible solution: we must assume the existence of a tonal (prosodic? phonational?) contrast in Proto-Altaic. While we can not reconstruct its precise phonetic nature (due to the peculiar "contrastive" reflexation in daughter languages), we may state that original long vowels in tone A were shortened in Tungus, but preserved their length in Turkic, while in tone B they were shortened in Turkic and preserved their length in Tungus.

The present paper is purely Altaic; I do not intend to pursue the question of the Nostratic origin of Altaic "tones". Still I must say that establishing correspondences between Altaic prosodic contrasts and those in other branches of Nostratic (by now it seems quite probable that a similar opposition existed in Proto-Indoeuropean) would greatly strengthen the arguments in favour of the Nostratic theory.