

Kamchukchee and Eskimo Glottochronology and Some **Altaic Etymologies Found in the **Swadesh** List**

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The latest glottochronological research on Kamchukchee and Eskimo languages is based on new results in Kamchukchee (KCh) and Proto-Eskimo (PE) historical phonology studies and the etymological databases of the two families, made by the author. It can be stated that these two families have not had any genetic connections for at least the last 5–10 millennia (although connections between their ancestors may possibly be traced at the levels of macrofamilies like Nostratic). But for the last 2–3 millennia they have been in constant contact on the territory of North-Eastern Asia. The results of glottochronology agree with our subjective experience, based on what we know of the levels of relationship between languages (e. g. quantity of etymologies necessary for postulating a certain degree of proximity, the level of complexity of the correspondences between the phonological systems of the daughter languages, etc.).

The original KCh family must have existed around 2800 years ago (55 % of matches within the 100-word list). Based on the average (not minimal) number of possible matches, we will have to assume a splitting not earlier than 2500 years ago. At that time the KCh family became divided in two branches — Proto-Chukchee (PCh) and Proto-Kamchadal (PK). After that point contacts between the two became minimal and various innovations began taking place. Then, at the beginning of the 6th century (83 % matches), the PK unit split in several parts — among them the Southern and the Western Kamchadal branches, whose languages were attested in the 19th century; the last Southern language, written down by B. DYBOWSKI, had disappeared by the beginning of the 20th century. It is possible that an Eastern branch also existed, but the last dialectal material from Eastern Kamchatka was attested at the end of the 18th century, and, according to those recordings, it was probably a dialect close to WK, with a relatively low level of differentiation.

Around the same time or a little earlier (around 510 AD — 82 % matches), the PCh unity had become split into the Chukchee (Northern) branch (modern Chukchee) and the Kamchatkan (Southern) branch. [Of course, there is no need to take these datings literally — they are rather provisional, and varia-

tions within the limits of one or two generations are possible]. On the edge of the 1st and the 2nd millennia Koryaks (Chawchuwen 'herdsman', mod. Koryak) lost contact with other PCh-Kamchatkan dialects remaining in the north part of the Kamchatkan peninsula along the Sredinny ridge. This may be related to changes in the traditional Koryak style of life (salmon-fishing, still preserved among remaining PCh languages speakers on the Kamchatkan peninsula) and to the adoption of the caribou stockman culture. The separation of «dialect of Western Kamchadals» described by B. ДУБОВСКИ in the 19th century (presumably Sedanka dialect) from other WK languages around 1100 AD (92 % matches) was a result of Koryak migration. Later, around 1250 AD (95 % matches) the Kamchatkan (Nymylan) languages split into the Palana language (the so-called Koryak dialect of Palana, located on the western part of the ridge facing the Okhotsky sea) and the Alutor (Olutor) language on the eastern part of the ridge closer to the Pacific ocean. Around 1420 (97 % matches) the remaining WK language had become divided into the Itelmen language as represented by the Napana dialect (described by A. P. VOLODIN in his monograph), and the Itelmen dialect used as the basis for the new short Itelmen-Russian dictionary (written by A. P. VOLODIN and K. N. KHALOYMOVA, dialects of Kovran and Upper Khayriuzovo). This is an exhaustive list of KCh languages which one can use for comparative studies and glottochronology. What is interesting is that the dates of splitting of KCh languages find their chronological correlates in the results for Eskimo.

The Proto-Eskimo (PE) language split in two about 2700 years ago (57 % matches) — not later than 2400, judging by the averaged list of numbers of matches. These two branches have been traditionally recognized as Proto-Inupik (PI) and Proto-Yupik (PY). Around 140 BC (68 % matches), the Sirenik language split from PY; in 180 AD (75 % matches) Siberian Yupik (SY) and American Yupic (AY) were formed. The SY unity was shattered in 510 AD (82 % matches), after which Chaplinski (Unazigmit) and Naukanski (Nyvukagmit) lost contact and became different languages. At about the same time, as shown above, Chukchee had split from other PCh languages, and it seems that the migration of Chukchees to the territories between Naukanski (now located on the North-Eastern part of Chukotkan peninsula) and Chaplinski was the main reason for this separation of SY languages. The first subbranch of AY became separated about 760 AD (87 % matches); it includes such closely related languages and dialects as Nunivak (Nun) (used here for glottochronological calculations), Norton Sound, Chevak, Egegik. Speakers of these languages now inhabit islands and select parts of the Western Alaska seaboard close to the Bering sea. The separation of Supik dialects (Chevak and Koniag) from the Central Alaskan Yupik (CAY) took place around 1180 AD (94 % matches). It is possible that the marginal position of Nunivak and similar dialects is a result of CAY expansion.

The splitting of PI began around 640 AD (85 %), when the Inupik of the Seward peninsula (SPI) became an independent subbranch — in reality its speakers remained on the original territory, while the rest of the Inupik migrated to the North-East. It is possible that Nun was the first wave of Yupik colonisation of free Alaskan territories where other Inupik had been living previously. Later, at around 1050 AD (93 % matches), the Eastern subbranch, including Greenlandic and Eastern Canadian Inupik, was formed. These languages became distinct from one another around 1430 AD (97 % matches). The Western branch split into North Alaskan Inupik and Western Canadian Inupik at around 1340 AD (96 % matches). Of course, operating with the closely related Inupik languages is rather problematic, but the fact that the PI unity at some time split into SPI and the rest is undeniable.

It is interesting that the loanwords in Eskimo (PE, PI, PY), present in the author's etymological dictionary, look like old borrowings from KCh. Their phonetics and semantics show an active contact with a KCh source closer to PK than to PCh. We may suggest that the breakup of the KCh family and migrations of PCh language speakers actually provoked the migration of a part of PE speakers across the Bering Strait, and, subsequently, their partial isolation which caused the forming of the PI subgroup with its independent developments. It is also necessary to say that there are some KCh and PC borrowings in the Eskimo 100 wordlist ('small', 'moon', 'leaf'), but reverse loans from PE have not been attested.

Phonetic correspondences between PE and Nostratic were established by the author more than 20 years ago. At the same time the hypothesis about a specific relationship between the Altaic family (Proto-Altaic, PA) and PE was put forward. It was interesting to perform glottochronological calculations between modern languages descending from PE and PA. The results of etymological research show that only about 10 PE roots (out of about 200 roots from modern Eskimo languages encountered in the 100-wordlist) do not have any phonetically regular parallels with close semantics in PA. In fact, it is possible to say that practically for every one of them one can offer a PA etymology (with a few exceptions, all of these roots can be found in EDAL). As a result, every modern Eskimo language has at least 10 reliable phonetic and semantic parallels in modern Altaic languages.

The exact distribution is as follows: modern Eskimo language/modern Turkic language — more than 11 (but with Chuvash, Tuvian, Kirgiz — more than 12, with Turkmenian — more than 13), modern Eskimo language/modern Mongolian language — about 11, modern Eskimo language/Modern Tungus-Manchu language — about 13 (but with Nanai — more than 15, with Evenki — about 16, with Negidal — more than 17), modern Eskimo language/modern Korean — 10, modern Eskimo/modern Japanese — about 13.

The unexpected surplus of Tungus parallels may be the result of close separate contact after the disintegration of the Altaic unity.

Below we present a list of Proto-Eskimo (PE) and Altaic root correspondences found on Swadesh's 100-wordlist (plus 10 additional items). What is most striking is that, for the most part, in addition to wider Eurasiatic or Nostratic etymologies, many of the presented Eskimo etymologies display a special connection with Altaic in respect to specific phonetic processes and meaning specification, such as, for instance, the same non-trivial development **m-* > **v-* (**b-* in Altaic) in the auxiliary words and 1st person pronouns. Some of these roots are preserved in the other branches of Nostratic (such as Uralic or Indo-European), but some are lexical isoglosses typical only for PE and Altaic.

The preliminary table of consonantal correspondences is listed before the etymologies, but it can be subject to further modifications as new lexical entries are gradually introduced. The main characteristics of the PE phonological system are: 1) the opposition between voiceless stops and voiced fricatives; 2) a ban on initial voiced fricatives and voiceless stops at the end of the last syllable; 3) a lack of more than two-consonantal clusters in the inlaut position; 4) lack of clusters in the initial position and in wordfinal position; 5) a ban on the sequence **ti*; 6) some traces of old vowel harmony resulting in the differentiation of velar and uvular consonants on the PE level; 7) etymological reduction of vowels in certain positions (probably due to some former accentuation peculiarities); 8) an archaic recomposition of some roots with the structure **TəTV* into **VTTV*, with the «false» first vowel replicating the second one.

1) PE₇ **acay* 'paternal aunt' > PYup. **acay* id., PInup. **accay* (~ -*h*) id. The geminate in Inup. may reflect a vocative form of this relative's name (CED 2).

Altaic **āčV* 'elder relative, ancestor' (mostly female; forms denoting a male relative with meaning 'father, ancestor' must represent a different root) > Turk. **āčaj* / **ēčej*, T.-M. **asī* 'wife, woman', Kor. **āčā-*. An expressive kinship «nursery» word with the typical structure **VCV*. The Mongolian reflexes are problematic: Mong. *ežei* 'mother, elder sister' is probably < Turk. (EDAL 271, 272).

2) PE₅₇₀ **aci* 'area below, downward' > PYup. **aci* 'area below, downward; to go down; earth, ground (Sirenikan)', PInup. **aci*, **at-* 'area below, down; ground, floor' (CED 3, 47).

Altaic **dē* 'to lie' > Turk. **jat-*, Mong. **de-b-*, T.-M. **dē-du-*, Jap. **dantà-r-*. One of the common Altaic monosyllabic verbal roots. Note dental suffixation (probably **dē-ta-*) reflected in Turk, T.-M. and Jap. (EDAL 466). Cf. also Turk. **bat-* 'to get down, to sink'.

3) PE₅₉₉ **aci-ʃ-* 'good, to like' > PYup. **aci-ʃ-* 'good; to like' (CED 47). PInup. **aca-* 'to love' (CED 61).

Altaic **gāte* 'strong, very' > Turk. **ged*, Mong. **küdüür*, T.-M. **gata-* / **kada-*, Jap. **kətə*. The root reveals some phonetic irregularities — probably due to contaminations with **kéfo* 'much, many' and **kadi(rV)* 'strong, tough' (EDAL 532, 533). Another possible comparison: Altaic **odi* (~ *-e*) 'sexual passion', Turk. **öd-i*, Mong. *(*h*)*užid*, T.-M. **uda-* (EDAL 1042).

4) PE₅₉₄ **ayə-* 'to go on walks' > PYup. **ayə-* ~ **ay-ub-* 'to go on walks' (CED 7, 55), PInup. **ai-*, **ai-k-ləʃ-*, **ai-t-rub-* 'to go; to go home; to fetch, to give'. There is another common root with close semantics: **ayi-ʃ-* 'to come' (CED 7).

Altaic **āja* 'to go, walk' > Turk. **Aj-*, Mong. **aja-*, T.-M. **āj-*, Jap. **ājum-* (EDAL 277, 278).

5) PE₇₀₆ **ayə-* 'that, on the other side, across' > PYup. **ayə-* (*-kurə*, *-rumə*, *-ani*) 'that, over there, on the other side, across'. The main pronoun for 'that', with a specific declination paradigm unlike that of the other demonstrative pronouns, but analogical with **u-* and **tā-u-* 'this' (CED 453). PInup. **ay-na* (**ak-kua*, **ay-ruma*, **a(γ)-ani*) 'that, on the other side, across'. Some ECI and GRI forms in the paradigm are replaced by the phonetically similar pronoun **av-* 'over there, going away' (CED 453, 456).

Altaic **é* 'that (deictic root)' > Turk. **ā(-n)*, Mong. **e-ne*, T.-M. **e-*, Kor. **ā-mò*, Jap. **ā-* (EDAL 487).

6) PE₅₅₆ **ayi-ʃ-* 'to come' > PYup. **ayi-ʃ-* 'to come; to bring'. See also **ayə-* ~ **ay-ub-* 'to go on walks', PInup. **ayyi-ʃ-* (*-t-*) 'to come, to come from afar; to take sth. home, to bring home' (CED 7).

Altaic **aje* (~ **ejo*) 'to reach, come close' > Mong. **aji-su-*, Jap. **ájamp-*. A Mong.-Jap. isogloss (EDAL 279).

7) PE₁ **ayru-*, **ayri-* 'star' > PYup. **aRyu-*, **ayRa(ʃ)* 'star' (CED 1, 9). PInup. **ayru-*, **ayri-aq-* 'constellation: the Pleiades, constellation of two stars (appearing on the shortest day of the year)' (CED 1).

Altaic **iákV-rV* 'light, white' > Turk. **Āk*, Mong. **jagayan*, T.-M. **ixere*, Kor. **ikir-*, Jap. **áká-(r-)*. The final vowel is not quite clear: some languages point to **-i* or **-e*, others rather to **-a* (EDAL 598). Cf. also Altaic ? **biaga* (~ *-i*) 'moon, brilliance', preserved only in T.-M. **biaga*.

8) PE₇₂₇ **abna-* (~ **-bñ-*) 'woman, female' > PYup. **abñia-* 'woman, girl, female (in compounds)', PInup. **abna-* 'woman, female (in compounds)' (CED 43).

Altaic **kune* (~ *g-*) 'one of several wives' > Turk. **güni*, Jap. **kuanami*. A Turk-Jap. isogloss (EDAL 739, 740).

Altaic	Proto-Eskimo	
*p	p-, -p-, -v-?	
*p'	p	
*b	ϕ-, -v-, -ϕ-, (-p-)	
*t	t/c	The palatalized variants are the result of PE development *ti > *ci in all cases (t before -i is prohibited); sometimes they are found before front row vowels or diphthongs in Altaic.
*t'	t/c	See the development of *t.
*d	ϕ-, -t-	See also the development of *b-, *g- in the anlaut position.
*k	k-/q-, -k-/ -q-	The difference between velar and uvular rows of stops is secondary in PE. It is a result of consonantal accommodation depending on the front/back character of the root vowel. There was also a vowel harmony between root vowels and some derivative affixes (-ɣ-, -β- — so-called 'stem modifiers' of nouns and verbs). The synchronic pronunciation of *qu and *qi as [qɔ] and [qe] is a trace of an old differentiation between two rows of vowels (presumably high and middle rows such as the ones in Tungusic or Mongolian).
*k'	k-/q-, -k-/ -q-	See the comments under *k.
*g	ϕ-, -ϕ-/ -ɣ-/ -β-	See also the development of *b-, *d- in the anlaut position. See the comments under *k. Sometimes Altaic *g- seems to correspond to -q-; this may be a trace of an old voiceless fricative.
*č	c-, -c-, -tə	
*č'	c-, -c-, -tə	
*ʒ	ϕ- (ci- ?), -j-	

Altaic	Proto-Eskimo	
*s	c-, -c-, (-tə?)	
*š-	c-	
*m	m	
n	n-, n̄-, -n-, -n̄-	The palatal reflexation is found before Altaic diphthongs and <i>-i-</i> .
*ń	ń-, -n̄- ~ -ń-, -bə	See the comments under <i>*j</i> (i. e. the development is <i>*-ń > *-j > *-bə</i>).
*ŋ	θ-, ń-, -nY/b-, -ŋ-	The palatalized reflexation is found before Altaic diphthongs. Sometimes consonantal clusters (sometimes with a reduced vowel in between) are found instead of simple velars.
*l	n-, -l-	The reflex with the initial <i>*l-</i> is found very occasionally.
*l̄	N-, -l-, -rə	Cf. <i>*r̄</i> .
-j-	-j-, -y-, -θ-, -bə	In early PE a special development <i>-j > *-b</i> in syllable-final position has occurred; a reduced vowel was then inserted after the last consonant of the root. Cf. the development of <i>*ń, *r</i> .
*r	θ-, -r-, -bə -j-	See the comments under <i>*j</i> . There is an unpredictable reflex <i>-j-</i> in PE which can reflect a distinct Nostratic phoneme (<i>*r̄</i>) or depend on as yet unclarified phonetic conditioning.
*r̄	-r-, -tu	Cf. <i>*l̄</i> .
*-Nd-	-ń-, -n(ŋ)-	
-md-	-mŋ-	< <i>-mń-</i> ?
*-ng-, -nk-	-ń- ~ -ŋ- ?	
*-jn-, *-rj-	-j-, -bə	See the comments under <i>*j</i> .

9) PE₅₁₃ **abra* 'ashes, powder' > PYup. **ábr[a]* 'ashes; drug, powder'. The Chap. form features a metathesis: **ayrə-* > *γārə-*, so that the stem begins atypically with a voiced initial *γ-*. The word for 'drug' looks like an Alaskan cultural loanword in Siberian Eskimo (CED 6, 41). PInup. **abra* 'ashes; gunpowder' (CED 41, 42).

Altaic **gari* (~ *-í-*, *-o*) 'light' > Mong. **gere-l*, T.-M. **garpa* (EDAL 531). The original semantics in PE should have been something like 'flaring, blazing coals'.

10) PE₆₆₆ **akma-Lu-* 'round' > PInup. **aymalu-* 'round' (CED 36).

Altaic **géká* 'hook, bend' > Turk. **Kek-* / **Kak-*, Mong. **gek-*, T.-M. **gek(u)-*, Jap. **kánkám-* (!) (EDAL 536, 537).

11) PE₆₆₄ **akra-γ-* (**aqra-β-*) 'wheel, to roll, round' > PYup. **ak(r)a-γ-*, **ak(r)a-m-kə-* (*-m-tu-*), **aq(r)a-β-* 'wheel, round; to roll', PInup. **akra-γ-* (*-lu-*), **aqraβ-* 'to roll, to turn round or over; wheel, tyre, wheeled vehicle' (CED 10, 36). There is also PE **aqra-* ~ **aRqa-* 'ball' (665).

Altaic **kjúru* 'a k. of vehicle, wheel' > Turk. **Kírák*, **Kíragu*, Mong. **kür-dün*, T.-M. **kur-*, Jap. **kúrúma* (EDAL 708).

12) PE₆₆₂ **aku-* 'root of plant' > PYup. **aku-* 'root', PInup. **aku-* 'root of plant'. It is necessary to distinguish this root from **aku(və)* 'skirt, part of garment, waterproof garment' (1615), despite CED (CED 14).

Altaic **gokV* 'a k. of reed or leek (корнеплод)' > Turk. **Koga* (~ *-k-*), Mong. **gogu-*. A Turk-Mong. isogloss: not quite reliable because of late attestation, but borrowing in either direction seems improbable (EDAL 563, 564).

13) PE₇₃₆ **ali-(va-)* 'far, in the distance' > PYup. **ali-* 'from afar', PInup. **ali-(va-)* 'to be far; to retreat a little' (CED 17).

Altaic **giála* 'to stay behind, be separated' > Turk. **Kiāl-*, Mong. **gal-*, T.-M. **giala-*, Jap. **kára-*. The original meaning is well reconstructible as «to lag behind > become separated» (EDAL 547, 548).

14) PE₅₂₃ **amə-* 'many, much' > PYup. **amə-* (*-lə-*, *-tV-*) 'frequent, perpetual; many, much', PInup. **ami-* (*-lba-*, *-tu-*) 'many; to increase in numbers' (CED 22, 23).

Altaic **ěma* (~ *-o*) 'to stay, be left, leave' > T.-M. **emē-n-*, Jap. **amà-* 'plenty'. A T-M~Jap. isogloss. Cf. perhaps also MKor. *màmír-* 'to stay, remain' (< **Vməmir-*, with a rather usual Korean loss of initial vowel?) (EDAL 503, 504).

15) PE₇₄₀ **am-ərtə-* with negation affix 'thin, narrow' > PYup. **amərtə-* 'thin in girth; narrow', PInup. **amit-* 'narrow, thin' (CED 24). Literally 'not wide'.

Altaic **ámbe* 'heavy, big' > Mong. **amban*, T.-M. **amba-*, Kor. **mì-*, Jap. **ám(p)á-* (EDAL 295).

16) PE₆₈₁ *ami- 'hide, skin' > PYup. *ami-(ba-) 'hide, pelt, skin', PInup. *ami-(ba-) 'hide, skin; fish skin; tree bark' (CED 23).

Altaic *emV(ηV) 'saddle, belt' > Turk. *čd̡je-r, Mong. *emeje-l, T.-M. *emu-l. A Western isogloss (EDAL 506).

17) PE₅₀₂ *āmtu- ~ *mātu- 'leaf, coltsfoot' > PYup. *amtu- 'coltsfoot'. PInup. *mātu- ~ *mulā- 'leaf of plant; coltsfoot'. The metathesis of vowels in GRI took place under the influence of *mulā- 'paddle blade' (CED 202, 255).

Altaic *mōro 'a k. of weed' > T.-M. *mōr-, Kor. *mār, Jap. *mā (~*muā) [WHITMAN 1985: 144, 155, 237]. An Eastern isogloss. In Turk. cf. perhaps Oyr., Shor parga 'weed' (which would require a modification of the PA form to *mīārō). The loss of resonant in Jpn. presupposes a suffixed form like *mōr(o)-gV (cf. the Turkic parallels) or *mōr(o)-ηV (cf. Evk. moriηa) (EDAL 945). But PE reflects a form with original *r̥.

18) PE₅₂₈ *amqā- 'to bite' > PYup. *am(ə)qā- 'to bite 1, to bite off, to nibble lips 2', PInup. *apqa-la- 'to eat quickly' (CED 16).

Altaic *āmo 'mouth; taste (*amo-fa, *amo-sa)', Turk. *um-, *um-sa-, Mong. *ama-, *amsa-, *amta, T.-M. *amηa, *amta-, Kor. *mās, Jap. *ámá-, *ántí (EDAL 296, 297).

19) PE₇₂₉ *ana-b- 'rust' > PYup. *ana-b- 'rust'.

Altaic *beña 'red clay, dirt' > Turk. *bAñak, T.-M. *beη-ge-, Jap. *pání. If the Negidal form belongs here, it may reflect, together with Turk. *bAñak, a common derivative *beña-kV (EDAL 339).

20) PE₅₈₀ *anāb- 'spark, fire' > PYup. *anāb- (-ib-) 'spark, fire' (CED 28).

Altaic *žiājnā 'to burn; ashes, tar' > Turk. *jan-, *jan-tir-, T.-M. *žian-, Kor. *čái, Jap. *dāni. Medial *-j- accounts for loss of *-n- in Kor. (EDAL 1539).

21) PE₁₅₈₈ *aniya- 'moon, month' > PInup. *aniya(a-) 'moon' (CED 28). The connection to the word 'elder brother' cited in CED represents a 'folk etymology'.

Altaic *ānu 'moon, moon cycle' > Turk. *ānk, Mong. *oj, T.-M. *aīηa (EDAL 303). In both Turkic and T.-M. a postconsonantal velar stop is evident.

22) PE₇₄₅ *anuqā 'wind' > PYup. *anuqā 'wind', PInup. *anubā, *anuq-
-lib-, *anub-rab- 'wind, to be windy' (CED 30).

Altaic *iangu > Turk. *(i)an̡ki- 'emit odour', Mong. *(h)on̡guli- 'to gasp, breathe heavily', T.-M. *uīηu- 'to smell' (instead of Turk. *in-tik 'to become tired, exhausted'). See iuīηu (~ -a) 'to breathe, smell' (EDAL 620).

23) PE₅₁₉ *aη(u)- 'big' > PYup. *aη(u)- 'big, great' (CED 32, 35), PInup. *aηā-na- 'big 1, wide, last long 2, too big for 3, to make too big (large) 4' (CED 32). Derivatives: *aη(ə)-li- 'to grow up, to become bigger', *aη-tu- 'big, bigness'. Not related to *aηu-nt 'man, old man, male animal'.

Altaic **áni* 'very' > Turk. **eŋ*, Mong. **aŋ-ka*, T.-M. **ana-*, Kor. **àní* (EDAL 300). The hypothesis that Turkic and Mongolian here reflect a suffixed form **áni-kV*, with assimilation **-n- > *-ŋ-* (with further reduction in Turkic) can be challenged by the alternative hypothesis that they actually reflect the original velar nasal.

24) PE₆₄₈ **apju-* 'smoke, fume, vapour' > PYup. **apju-* 'smoke, fume', PInup. **apju-* 'smoke, haze, mist' (CED 38).

Altaic **api* 'wind, vapour' > Turk. **Ep-*, Mong. **ayur*, T.-M. **apka* (EDAL 311).

25) PE₅₁₇ **aqja* (*=qu-*) 'belly, stomach' > PYup. **aqja* (*-qu-*) id., PInup. **aqia-* (*-bu-*) (~ **-qj-*) id. (CED 41).

Altaic **kéra* 'belly; body, ribs' > Turk. **Karin*, T.-M. **kerimuk*, Kor. **kari*, Jap. **kára-(n)tá* (EDAL 669).

26) PE₆₀₂ **arya* 'hand' > PYup. **arya* 'hand', PInup. **aryay* (~ *-ly-*) 'hand, wrist' (CED 4).

Altaic **gàrá* (~ *-e-*) 'arm' > Turk. **Kari*, Mong. **gar*, Jap. **kàtá* (EDAL 530, 531).

27) PE₅₃₉ **aruy* 'blood' > PYup. **áruy* (*-ja-*) 'blood, clotted blood', PInup. **a(r)uy* (*-ia-*), **arrə-b-* 'blood, to bleed, clotted blood, red' (CED 5).

T.-M. **erin* 'breath, life, soul'; hardly connected to Altaic **èra* 'to be' > Turk. **er-*, Mong. **ere-*, Jap. **àr-* (EDAL 515). On the other hand, the semantic development 'blood' ~ 'strength, soul' is quite common in many languages.

28) PE₆₅₁ **atabu-ci-* 'one' > PYup. **atabu-ci-* 'one', PInup. **ataucci-* 'one' (CED 50).

Altaic **gàgtà* 'one of a pair' > Turk. **Kat*, Mong. **gagča*, T.-M. **gagda*, Jap. **kàtá* (EDAL 525, 526).

29) PE₆₄₁ **atəb*, **atRiəb-* 'name; to name' > PYup. **atəb*, **atjib-* id., PInup. **atəb*, **accib-* 'name, namesake; to name' (CED 51).

Altaic **ófè* (~ *-t-*) 'sound' > Turk. **öt-*, Mong. **öči-*, T.-M. **(x)ot-*, Jap. **ótà* (EDAL 1068).

30) PE₇₃₂ **ava-nt*, (*-t-li-*) 'area around, outermost, faraway' > PYup. **avantə*, **avali-* 'area around, locality; faraway', PInup. **ava-nt*, **ava-lli-* 'surrounding area, outermost' (CED 54).

Altaic **ebo* 'enough, big' > Mong. **(h)öy-* / **(h)öb-*, T.-M. **ebi-*, Kor. **ò'á-*. Cf. Jap. **əpə-* 'big' which may reflect a merger of this root with **əpə* (EDAL 490, 491).

31) PE₅₄₁ **caHunəb* (~ *-ŋ-*, *-r-*) 'bone' > PInup. **caunəb* (~ *-ab*) 'bone; seed' (CED 72).

Altaic **sìŋù* 'bone; shin bone' > Turk. **siŋök / *sìŋok*, Mong. **siŋa*, T.-M. **siŋa-*, Kor. **sìn*, Jap. **sùnài* (EDAL 1254, 1255). But cf. also Altaic **čjaŋu* (~ **čjoŋe*) 'a sharp bone, sharp instrument' (EDAL 439).

32) PE₅₄₆ **cakima-* (~ *-ŋ-*) 'chest, rib cage' > PYup. **cakima-* (~ *-ŋ-*) 'breast, chest, breastbone, rib (of animal)', PInup. **caki(m)a* 'chest, breastbone, breast, rib cage' (CED 65).

Altaic **čekV* 'part of shoulder close to neck' > Turk. **čekn*, Mong. **čekerej* (EDAL 422).

33) PE₅₆₇ **caluv-* 'to tan skin, thin, dried, lean' > PYup. **caluy-* 'dry, dried out', PInup. **caluy-* (*-m-*), **callu* 'to tan (skin), thin' (CED 66).

Altaic **fjule* (~ *-o*) 'to weaken, be exhausted' > Mong. **tul-*, T.-M. **tüla-* (EDAL 1443). For the anlaut consonant development cf. PE **ciyər-qu-*, **cir-qu-* 'knee'; **ciluy* (~ **cũ-*), **culuk-Ruy* 'feather of wing, dorsal fin'.

34) PE₇₁₉ **ca-ŋu-* (*-ra*, *-na*) interrogative pronoun «what», «what to do» > PYup. **ca-ŋu-ra* (*-na*), **ca-* 'what, why, what to do', PInup. **cu-na*, *cu-a*, **cu-(r-)* 'what, why, what to do' (CED 90). For the first part cf. PChuk. **šən*, **šeq-* id. < KCh **nə-qə*. The second part of this pronoun may correspond to:

Altaic **ŋl̥iV* 'what, who' > Turk. **nē*, Mong. **jaju-n-*, **jajuma*, T.-M. **ŋü*, Kor. **nú-*, Jap. **nV̄* (EDAL 1034).

35) PE₅₄₂ **carə-* 'to turn towards, to face, to pass in front' > PYup. **ca(r)u-* 'to turn towards, to face' (CED 72); PInup. **caa-t-*, **car-but-*, **car-va-ŋ-* 'to face, to turn towards 1, to pass in front 2, to move, to put forwards 3' (CED 62, 63). The corresponding nominal stem: PE **carə* 'front, breast' > PYup. **carə* 'breast, front of body' (CED 62, 73), PInup. **caa-*, **ca'-mun* (*-mi-*, *-la-ŋ-*) 'front of body, in front, to turn forwards, foremost' (CED 62).

Altaic **čöl̥e* 'front, front part' > Turk. **döl̥i*, Mong. **döli*, T.-M. **žule*, Kor. **čira* (EDAL 403, 404).

36) PE₁₄₉₉ **ca(r)u* 'earth or snow covering sth., humus' > PInup. **cau* 'to bury, to cover with earth or snow' (CED 72).

Altaic **siŋri* 'earth, sand; marsh' > Turk. **siaŋ*, Mong. **siraju*, T.-M. **siru-*, Kor. **hark*, Jap. **situ* (EDAL 1269, 1270).

37) PE₆₇₁ **cəŋa-ŋ-* 'to see, to look, to open eyes' > PYup. **cəŋa-ŋ-* (> **cəŋa-ŋ-*) 'to see, to look; to open eyes, to wake up'. Cf. PInup. **caŋ-viŋ-* 'to become visible' (1774).

Altaic **sigá* (~ *z-*) 'to look, search' > Mong. **sigiya-*, T.-M. **sig-*, Kor. **cháč-*, Jap. **sánk-*. Kor. **cháč-* is an assimilation < **sVháč-* = PJ **sá(n)kas-* (EDAL 1242).

38) PE₆₅₇ **cəla* 'universe, atmosphere, weather' > PYup. **cəla* ~ **əcla* 'universe, atmosphere, weather, external world, area outside', PInup. **cila* 'universe, atmosphere, weather, external world' (CED 78).

Altaic **zāli* 'wind' > Turk. **jəl*, Mong. **salki*, T.-M. **sal-di-*, Kor. **sar-* (EDAL 1508).

39) PE₅₄₉ **cətu(m)-* (=qu-), **cətu-ʃ-* 'nail, claw, hoof; to extend out legs' > PYup. **cətu-ɣ* (=m-qu-), **cətu-ʃ-* 'nail, claw, hoof; to extend out legs' (CED 86, 87), PInup. **cittu-ʃ-* 'to extend legs' (CED 87). The Russian equivalent for the verbal meanings is 'отбросить копыта' = 'to throw away the hooves', with the connotation 'to die (to lie with outstretched legs)'.

Altaic **siudu* (~ -a) 'a hoof deformation' > Turk. **sidir-gak*, Mong. **södürge*, T.-M. **sudu*, Jap. **sia* (~ **sai*). An interesting common Altaic body part name. The final vowel is difficult to reconstruct because of contraction in Jap. (EDAL 1287, 1288).

40) PE₆₀₉ **ciɣər-qu-*, **cir-qu-* 'knee' > PYup. **ciɣər-qu-*, **cir-qu-* 'knee, knee-cap, patella', PInup. **ciətqu* 'knee' (CED 74).

Altaic **tjūrē* 'leg; knee' > Turk. **dīr*, Mong. **türej*, T.-M. **türē-kse*, Kor. **tàri*. Mongolian and Tungusic forms are genetically related to PT **dīr* (**dīr*). This is one of the few cases of secondary voicing in PT (before **r*, **r*): the original voiceless reflex is preserved within the Common Turkic derivative **tir-sgek* 'elbow' (EDAL 1447). For the anlaut consonant development cf. PE **calu-* 'to tan skin, thin, dried, lean', **ciluy* (~ **cū-*), **culuk-Ruy* 'feather of wing, dorsal fin'.

41) PE₅₆₉ **ciyunt* 'ear' > PYup. **ciyunt* 'ear', PInup. **ciunt* 'ear' (CED 75). The stem formally looks like a deverbal instrumental noun from an unknown verb.

Altaic **č[ia]ki* 'temple, ear' > Turk. **čəke*, Mong. **čiki*, T.-M. **čakar*, Kor. **čākami*. The vocalism is not quite certain: a reconstruction of **-ja-* is possible if we admit a secondary monophthongization **čja-* > **ča-* in T.-M. (EDAL 437, 438).

42) PE₆₆₉ **cibu-ɣ-*, **cib-mi-* 'to become covered with dirt, sand, ice' > PYup. **ci[ʃ]u-ɣ-*, **cib-mi-* 'to freeze, covered with dirt' (CED 85), PInup. **ciuʃa-ʃ-*, **cib-mi-* 'sand; ice on an object' (CED 87, 85).

Altaic **čāga* 'cold, frozen snow' > Mong. **ča(g)-su*, T.-M. **čiaga*, Kor. **čhā-* (Kor. *čhiw-* 'cold' is a secondary derivation from *čhā-*). Mong. *ča-sun* may actually reflect a contamination with **čar-sun*, cf. **čar* 'crust (of snow), наст' (see **čera*, Turk. **čar-*, Mong. **čar* EDAL 424); Southern Mongolian languages seem, however, to preserve traces of a velar **čag-su* (EDAL 436).

43) PE₇₄₉ **ciβu-nəβ* 'horn' > PYup. **ciβu-nəβ* 'horn, antler' (CED 85, 86). Altaic **šičjò* 'thorn, (pine) needle' > Turk. **sojagu*, Mong. **sojuγa*, T.-M. **šūje*, Kor. **sāi*, Jap. **sàjà* (EDAL 1339).

44) PE₅₇₈ **ciluy* (~ **cū-*), **culuk-Ruy* 'feather of wing, dorsal fin' > PYup. **ciluy* ~ **culuy*, **culuk=juγ-* 'feather; wing; body hair; dorsal fin'. Cf. **culuy-*: PInup. **culu(γ)*, **culuRRuy-* 'feather of wing; dorsal fin; wing' (CED 92).

Altaic **déli* 'mane; collar' > Turk. **jəl*, Mong. **del*, T.-M. **delü-n*, Jap. *(*d*)*ia-ri*. The diphthong in Jap. may indicate PA **dējli* (EDAL 470). For the anlaut consonant development cf. PE **ciγər-qu-*, **cir-qu-* 'knee', **calwo-* 'to tan skin, thin, dried, lean'.

45) PE₆₅₈ **cita-tuy*, **ciHa-* (-*j-*, -*r-*) 'bad weather, rain' > PYup. **cita-tuy* (~ **cəta-*) 'rain; bad weather', PInup. **cila(q)-luy*, **cialə-* 'bad weather; rain, to be rain' (CED 78). The first meaning suggests derivation from **cəla* 'weather etc.', but this may really be a secondary confusion, as shown by Inup. variants with the meaning 'rain'.

Altaic **šičjūri* 'to flow, drip' > Turk. **sür-*, Mong. **sür-*, T.-M. **sir-*. A Western isogloss (EDAL 1298, 1299). The root may in fact be the same as **šičjōri* (reflected in the Eastern area, EDAL 1283), but modified under the influence of a synonymous **šičjūru* (EDAL 1342). The first PE variant reflects an older **ř*, the second may reflect *-*r-* if the PE form is to be reconstructed with *-*j-*, and *-*r-* or *-*ř-* if the PE form contains *-*r-*.

46) PE₅₁₀ **cita-m-* (~ **cəla-m-*) 'full, to fill' > PYup. **cəta-m-* 'full, all; to fill', PInup. **cilə[m]-* (~ -*v-*, -*ŋ-*) 'to have a full stomach; to fill completely' (CED 79).

Altaic **čálo* 'full, fill' > Turk. **döl-*, Mong. **del-*, T.-M. **žalu(-m)* (!), Kor. **čāra-*, Jap. **tár-* (EDAL 390, 391). The suffixal -*m* in T.-M. and PE is probably the same.

47) PE₆₈₃ **cinəγ-* 'to sleep' > PInup. **cinəγ-* (**cəniγ-*) 'to sleep; sleep' (CED 80, 81).

Altaic **šičjōje* 'dream, echo' > Turk. **jaŋ*, Mong. **žeyü-* 'sleep', T.-M. **žōŋi-*, Kor. **čá(ŋ)-*, Jap. **dīmài* / **dùmài*. Semantically a challenging etymology, with some mythological connotations (EDAL 1543, 1544). The PE reflex suggests a consonantal cluster *-*ng-*, rather than simple *-*ŋ-*, in Altaic.

48) PE₇₀₁ **ciqi-nəβ* 'sun' > PYup. **ciqi-nəβ* 'sun', Plup **ciqi-nəβ* 'sun, to be sunshine' (CED 84).

Altaic **šičjōgu* 'sun; sky' > T.-M. **sigün*, Kor. **hái*, Jap. **suà-rá*. An Eastern isogloss. It is also interesting to note MKor. *hànár* 'sky', which may, together with PJ **suàrá* id., go back to a complex form **šičjō[u]n-lv* (EDAL 1274). The uvular stop in PE suggests an original (Nostratic) uvular or voiceless fricative. Cf. PE **əqa-tuy* 'fish'.

49) PE₅₉₇ **cuβ-ra-* 'blue, green, blue-berry' > PYup. **cuβ-(R)a-* 'blue-berry'. Cf. **acubā-mā-* 'murky' in PYup, PInup. **cuββa-* 'blue-berry' (CED 95).

Altaic **čīðkē* (~ *-k-*) 'grass, weed' > Turk. **čekin*, T.-M. **čūKa*, Kor. **soksäi*, Jap. **tükúsi*. Mong. *čike-n* in names of plants may be a merger of this root and **čika* (EDAL 427). Kor. *soksäi* 'horse-tail' is hard to separate from Jap. *tukusi* id.; we are most probably dealing with an assimilation (*soksäi* < **čöksäi*) (EDAL 440).

50) PE₆₁₃ **cuja-* 'willow leaf' > PYup. **cuja-* 'willow leaf' (CED 96).

Altaic **siāgi* 'a k. of foliage tree' > Turk. **següt* 'willow', Mong. **siyer*, T.-M. **siakta* 'willow' (EDAL 1263).

51) PE₆₀₀ **cuŋa-* 'gall, bile, blue, green' > PYup. **cuŋa-* 'gall; blue, green; rubicund' (CED 93, 94); PInup. **cuŋa-* 'gall, bile; green' (CED 93).

Altaic **siāŋe(rV)* (~ *z-*) 'yellowish, greyish' > Mong. **sayar-*, T.-M. **siŋa(r)-*. A Mong.-Tung. isogloss (EDAL 1268).

52) PE₆₀₁ **cuŋa-* 'bead' > PYup. **cuŋa-* 'bead', PInup. **cuŋaura-* 'bead' (CED 93). This cannot be an affix-less derivate from **cuŋa-* 'gall, bile', since the attempt to propose an original semantics like 'the colour of turquoise' implicates a semantic concretization to 'gall' and 'bead' without any additional morphological markers; also unclear is the issue of why the specification stopped at meanings like 'gall' and 'bead' instead of 'sky', 'sea', 'grass', etc., which might be more expectable.

Altaic **sùnà* 'seed, grain' > Turk. **sunu*, Jap. **sànài* (EDAL 1318).

53) PE₆₃₃ **əβ[r]ə-t-* 'to dawn, light' > PYup. **əβ-tə-*, **əβ-cu-γ-*, **əβr-unt-* (~ **a-*) 'light; dawn, to dawn on', PInup. **İβrə-β-* (*-t-*) 'to become visible, to be clear, visible'. These stems have no connection to the root 'to hide', despite (CED 122). See **əβ[r]ə-nəβ* 'day'.

Altaic **əbri* (~ *-e*) 'dawn' > Turk. **ürün* (**örün*), Mong. **öwr*, T.-M. *(*x*)*oru-* (EDAL 1040, 1041).

54) PE₅₄₈ **əkə(-)* 'to burn, fire' > PYup. **əkə(-)* 'conflagration, fire; to burn', PInup. **ikə-* (*-t-*) 'to burn, to ignite' (CED 101). Cf. also **əkuma-* 'to burn', **əknə-* 'fire'.

Altaic **dékà* 'to burn' > Turk. **jak-*, T.-M. **deg-že-gi-*, Kor. **thà-*, Jap. **dák-* (EDAL 469).

55) PE₅₈₁ **əknə-* 'fire' > PYup. **əknə-β* (~ **kənə-β*), **əknə-ŋə-*, **əkn-a-* 'fire; to build a fire under, to start to burn, to cook', PInup. **iknə-β*, **ikn-a-* 'fire; to strike fire; flintstone' (CED 101). The stem looks like a deverbal noun from **əkə(-)* 'to burn', but if so, the uvular in the affix should have been a constant presence. Yet, as can be seen from Nauk. and Inup. data, it is regularly

«dropped»; thus, we are probably dealing with a secondary association, where some forms are reinterpreted as containing the suffix *-nəb* (CED 101).

This stem has a correspondence in Nostratic **HenkV* ‘fire, to burn’ (> IE **h₂gn-i-*, etc.).

56) PE₅₄₇ **əkuma-* ‘to burn’ > PYup. **əkuma-* ‘to burn’, PInup. **ikuma-* ‘to be burning’ (CED 101). The stem formally looks like a derivate from **əkə(-)* ‘to burn, fire’ (548) with the perfective suffix, but the word does not have any perfective semantics. Also, modern Yup. languages (except for Nauk.) show the loss of the initial **ə-*. We may be dealing with secondary contamination and re-etymologization in Eskimo languages.

Altaic **kume* (~ *-ju-*) ‘black; coal’ > Turk. **kōmür*, Kor. **kām-* (EDAL 852).

57) PE₆₈₇ **əla-γ-* ‘to inflame, to fume, to burn’ > PYup. **əla-γ-* ‘to inflame 1, to fume 2, to get scorched, to burn 3’, PInup. **əla-γ-* ‘to get scorched, burnt’ (CED 104).

Altaic **īla* ‘to fry, burn’ > Turk. **īl*, Mong. **ila-*, T.-M. **(x)ila-* (EDAL 584). But cf. also Altaic **giola* (~ *-l̄-*, **gialo*) ‘to burn, fire’ (Mong.-Tung isogloss, EDAL 554).

58) PE₆₁₀ **əli-(ma-)* ‘to know, to have a feeling’ > PYup. **əli-ma-*, **əli-γ-* (*ikə-*) ‘to know; sensitive, understanding; to cognize, to take in mind’, PInup. **əli-ma-* ‘suspicious, apprehensive; to suspect’ (CED 105). Cf. also the transitive derivate **əli-t-* (*-ima-*) ‘to learn, to know, to recognize’ (CED 105).

Altaic **āli-tV* ‘to know; to listen, hear’ > Turk. **ēlit-*, Mong. **aldar*, T.-M. **ala-*, **aldu*, Kor. **ār-* (EDAL 293).

59) PE₅₁₂ **əlu-*, **əlav-* ‘all, whole’ > PInup. **əlu-*, **əlav-* ‘all, whole, to be whole’ (CED 107, 129). Also Yup. AAY *lūciḃ-* id.

Altaic **biolo* ‘all, completely’ > Turk. **bile* (*bula*), Mong. **bul-tu*, T.-M. **bil-*. A Western isogloss (EDAL 351).

60) PE₅₆₃ **əməḃ-* ‘to drink’ > PYup. **əməḃ-* ‘to drink’, PInup. **əməḃ-* ‘to drink’ (CED 110). See also **əməḃ* ‘water’ (566) and deverbal derivatives **əmi-c-* ‘to soak, to drench, to give a drink’, **əməḃ-unt* ‘cup, vessel’ (564), **əməq=juy-* ‘to be thirsty’ (565).

Altaic **umV* (~ **o-*) ‘to drink’ > Mong. **umda*, T.-M. **um(i)-*, Kor. **mà-* (EDAL 1499, 1500).

61) PE₅₆₆ **əməḃ* ‘water’ > PYup. **əməḃ* ‘water (fresh)’, PInup. **əməḃ* ‘water’ (CED 110). Unlike in the case of the verb ‘to drink’, this nominal stem never drops its *-ḃ* before suffixes, meaning that here it is a part of the stem.

Altaic **mīūri* ‘water’ > Mong. **mören*, T.-M. **mū*, Kor. **mír*, Jap. **mí(-ntú)*. 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); loss of resonant presupposes a suffixed form: **mi* < **miūr(i)-gV* (cf. Manchu *mū-ke*). The development of the monosyllabic structure **TəT* > **əTəT* is obligatory according to PE phonotactic laws.

62) PE₆₄₉ **-ənbi-ŋ-*, **-ənbi-t* negative affix: 'to stop doing, not (imperat.)' > PYup. **-ənbi-ŋ-*, **-ənbi-t-* (CED 416, 417), PInup. **-ənbi-ŋ-*, **-ənbi-t* (CED 417). Cf. **(ŋ)i-*.

Altaic **āni* 'not, negative verb' > Turk. **en*, T.-M. **ā(n)-*, Kor. **àn-*, Jap. **nà-*, **(a)n-*, **iná* (EDAL 300, 301).

63) PE₇₁₇ **əpRuy-(a-)* 'to walk' > PYup. **pəjuy-(a-)* 'to walk, to go on foot', PInup. **picuy-(a-)* 'to walk' (CED 265).

Altaic **pēlo* (**-l-d-*, **-l-b-*) 'to walk, to run' > Turk. **el-*, Mong. **hülde-*, T.-M. **peli-* (*/*puli-*), **pelbu-*, Kor. **pārb-*, Jap. **pàsir-* (EDAL 1133, 1134). In PE it is easier to see the development from the affixal variant **pél-bo-*, with reflexation typical of **l* in syllable-final position.

64) PE₅₈₂ **əqatuy*, **i-* 'fish' > PYup. **iqatuy* 'fish', PInup. **əqaluy*, **i-* 'fish; polar cod, tomcod' (CED 141, 142).

Altaic **diági* (*~ -io-*) 'fish' > Mong. **žiya-*, Kor. **thi*, Jap. **(d)iwuá* (EDAL 477). T.-M. **žoji* (actually **žobi*) 'Salmo lenoc' (compared in some of the above sources) has a precise match in Mong. **žebeye* and has to be separated (Altaic **žjabo*, EDAL 1539). The Jap. form should also belong there phonetically. See PE **ivica* 'game-fish'. The PE reflex **-q-* in this root can be compared to the same development in PE **ciqi-nəb* 'sun' vs. Altaic **sīðgu* 'sun; sky'.

65) PE₇₁₃ **(ə)qəruy (-iŋ-)* 'wood, to chop wood, to stoke' > PYup. **əqəruy*, **əqər-iŋ-* 'wood, tree; to stoke, to chop wood' (CED 101, 295). PInup. **qəruy*, **qərriub-* 'wood; to chop wood' (CED 295).

Altaic **k(ar)U-gV* 'wood, shrub' > Turk. **kargaj* 'pine tree', Mong. **kargali-* 'shrub sp.', Kor. *koro-* 'a k. of maple'.

66) PE₅₉₈ **(ə)qruy* 'blue, green, dark (sky)' > PYup. **qəru-(ŋ-)* 'green, greenery; blue, bluish reflection in sky from open water; to become bluish, bruised', PInup. **qIcuy* 'dark cloud over open water' (CED 310).

Altaic **kāru* (*~ k-*) 'black' > Turk. **Kara*, Mong. **kara*, Jap. **kùruà-* (EDAL 651, 652).

67) PE₅₅₄ **ərrə-* 'cold, to be cold' > PYup. **əcə-kə-na-* (**əcu-*) 'cold', PInup. **ərrə-* 'cold, to be cold' (CED 147, 146).

Altaic **ül(ž)i* (*~ -e*) 'to freeze' > Turk. **ülli-* / **üli-*, Mong. **ölčir* 'able to stand the cold', T.-M. **ula-n* (EDAL 496, 497).

68) PE₅₄₄ *əvjaŋə- 'breast (usually female)' > PYup. *əvjaŋə- 'breast', PInup. *iviaŋi- 'breast' (CED 121).

Altaic *épá 'breast, rib' > Mong. *eb-, Kor. *əp-, Jap. *ámpará (EDAL 513, 515). PE probably reflects the same affixal form with *-rV as Jap. and the Mong. variant *ebür.

69) PE₅₂₅ *ica=qu- (-Hi-) 'wing, to flap wings' > PYup. *jaqu- (-Hi-) 'wing; to flutter or flap (wings); bird, butterfly' (CED 149, 70, 10). PInup. *icabú, *icaqqi- 'wing; to flap wing; butterfly' (CED 149, 70).

Altaic *gàči (~ *gèča) 'branch, bough' > Turk. *i-yač 'tree' (the second part), Mong. *gač-, Kor. *káci (EDAL 525). PE rather reflects the second variant of reconstruction.

70) PE₆₀₆ *ibca=qu- 'heart' > PYup. *ibca-qu- 'heart', PInup. *iqca-bu- 'heart' (CED 144).

Altaic *bū(g)si (~ -o-, -e) 'kidney, liver' > Turk. *böğse(k), Mong. *büse, T.-M. *bosa-hta. A Western isogloss — but cf. also MKor. khòŋ-phás 'kidney' (khòŋ 'bean'), where phás is also folk-etymologically analysed as 'bean', but may in fact continue the same Altaic root (EDAL 387).

71) PE₆₁₄ *in-[r]ab- 'to lie down, to go to bed' > PYup. *inab- id., PInup. *innab- id. (CED 136, 137). The stem is confused with *iŋ-ab- 'to lie' (615) in (CED 136).

Altaic *ònV (~ ū-) 'to fall, lie' > Mong. *una-, T.-M. *òn- (EDAL 1054).

72) PE₆₂₀ *inuy 'person, man' > PYup. *juy 'person, human being; man', PInup. *inuy, *innuy-, *inuq-unt 'person, owner; family member; servant' (CED 137, 138).

Altaic *gendV (~ k-) 'male, self' > Turk. *[g]əntü (-nd-), Mong. *gendü. A Turk.-Mong. isogloss (EDAL 541, where it is reconstructed as *gentV due to incorrect reconstruction of the cluster in Turk.).

73) PE₅₇₂ *irə 'eye' > PYup. *irə (-ŷ)-miy-, -ya- 'eye; air-hole, ventilate', PInup. *irə (-ŷ)-miy-, *ir-ya-, *irri-t- 'eye; to wink; to get sth. in one's eye' (CED 97, 98). Cf. verbs *irə-ku- 'to see, to look', *irə-tuy- 'to become blind (= 'to have bad eyes)' (CED 97).

Altaic *göre 'to see; understand' > Turk. *gör (= *gör-s) / *gör-, Mong. *gori, T.-M. *gur-, Kor. *kírì- (EDAL 567, 568). Cf. Mong. girkaj 'having good eyesight'.

74) PE₅₀₈ *irəbu-(na-) 'all, whole, complete' > PYup. *irəbu-(na-) 'all, whole, complete'.

Altaic *iúrù(-gV) 'to gather, crowd' > Turk. *irk-, Mong. *ir-, *irge-, T.-M. *urū-, Kor. *ur, Jap. *ú(n)ti (EDAL 622).

75) PE₅₈₄ **itəγ-(a-)* 'footpoint, foot' > PYup. **itəγ-(a-) (-miγ-)* 'toe-cap, footpoint; foot; to kick with top of foot' (CED 146, 124), PInup. **itəγ-(a-) (-miγ-)* 'ankle skin of caribou; foot; to kick' (CED 146, 147).

Altaic **búktV* 'leg, thigh' > Turk. **būt*, T.-M. **begdi* / **bugdi* (EDAL 380).

76) PE₇₅₁ **ivica* 'game-fish' > PYup. **ivica* 'flounder, halibut' (CED 148), PInup. **ivita- (-bu-)* 'trout, salmon' (CED 149). This root is strongly influenced by **əvitəb-* (**əvitəra-*) 'red stone, ochre', hence secondarily developed meanings like 'red trout'.

Altaic **ʒiobe* (~ **ʒiabo*) 'fish, salmon' > Mong. **ʒebeɣe*, T.-M. **ʒobi* 'Salmo lenoc', Jap. *(*d*)*iwuá*, cf. also modern Jap. *iwasi* 'herring' with the same affixation as in Eskimo languages (EDAL 1539).

77) PE₃₇₆ **iv=ju(γ)-*, **ivəba-* 'rain' > PYup. **ivRuy* 'rain' (CED 229), PInup. **ivba-b-*, **iv-cu-* 'to be wet from rain; rain' (CED 229, 148).

Altaic **ɲjōbu* 'to pour' > Turk. **ju(b)-*, Mong. **jeɣü-le-*, T.-M. **niabe-*, Kor. **nūb-*. It is tempting to compare OJ *mjiwo* 'water-way, seaway' (if *mji-* is to be analysed as 'water', the *-wo* part remains completely obscure) (EDAL 1031).

78) PE₁₂ **kayə-(ru?)* 'walrus hide peeled off' > PYup. **kay(r)u* 'walrus hide; blubber with fat (walrus hide); walrus skin for thongs; walrus' (CED 162), PInup. **kaa-t-*, **kau-γ* 'slice blubber from whale skin; to split or to be split into two layers (walrus hide); walrus skin with blubber' (CED 151, 162).

Altaic **kakú-* (~ *-k-*) 'tanned skin, leather' > Turk. **kakma*, T.-M. **kak-* (EDAL 632).

79) PE₁₁ **kaj(a)-* 'hungry, weak' > PYup. **kaja-*, **kajə-γ-* 'poor, indigent; weak, hungry' (CED 151, 162), PInup. **kaa-γ-*, **kajja-ʒa-* 'hungry; to starve, to devour food hungrily' (CED 151, 163).

Altaic **kjāru* 'need, necessity' > Turk. **gerge-*, Mong. **kara*, T.-M. **kor-pi-*, Kor. **kari-* (?) (EDAL 691, 692).

80) PE₃₇ **kanuγ* 'blood' > PYup. **kanuγ* 'blood, bloody stain', PInup. **kanuγ* 'blood' (CED 156).

Altaic **kjāno* 'blood; blood vessel' > Turk. **Kiān*, T.-M. **xuɲi-ka* (EDAL 797).

81) PE₄₉ **katə-* 'to come near, to join, to gather' > PYup. **katə-* 'to come near, to overtake, to catch up; to gather, to append; to join, to gather (refl.)' (CED 160, 161, 154), PInup. **katə-* 'to join; gathered' (CED 160, 161).

Altaic **kāči* 'to pass, go through' > Turk. **geč-*, T.-M. **kas-*. A Turk-Tung isogloss (EDAL 627).

82) PE₅₄ **kavir-(u-)* 'red' > PYup. **kavir-(u-)*, **kaviɓ-* 'red; red fox' (CED 162, 163), PInup. **kaviɓ-*, **kajuɓ-* 'red; red fox' (CED 162, 163).

Altaic **kǐǔru* 'red, reddish; brown, dark' > Turk. **Kǐr-*, Mong. **küre-* (**küri-*), T.-M. **xuri-*, Kor. **kuri*, Jap. **kúra-* (EDAL 828, 829).

83) PE₆₆ **kəγə-* 'to bite' > PYup. **kəγə-* 'to bite', PInup. **kiγə-*, **kiγγə-q* 'to bite; bite, bitten' (CED 164). Cf. **kəγə-m-* 'to bite, to grip between teeth'.

Altaic **kikú* 'to bite; rub, scrape' > Turk. **Kik-*, Mong. **kegže-*, T.-M. **kik-*, Jap. **kükúm-* (EDAL 677, 678).

84) PE₆₉ **kəγuntə* 'tooth' > PYup. **kəγuntə* 'tooth', PInup. **kiγunt* 'tooth' (CED 165). Formally looks like a derivative from **kəγə-* 'to bite' with an instrumental suffix.

Altaic **kǐǔge* 'palate, jaw' > Turk. **Kögme*, Mong. **köyemej*, T.-M. **xǔkte* 'tooth', Kor. **kǎhúm*, Jap. **k(ù)i* 'tusk' (EDAL 815).

85) PE₈₅ **kəməγ* 'flesh, skin' > PYup. **kəməγ* 'skin (human); flesh, body; fatty' (CED 168), PInup. **kəmə-γ* 'inner force, power, influence; strong, effective' (CED 169).

Altaic **kami* 'a k. of cloth' > Turk. **KEmek*, Mong. **kemerlig*, T.-M. **kam-*. A Western isogloss (although the Turkic reflex is somewhat dubious). Cf. also MKor. *kamtho* 'a horsehair cap worn by officials' (EDAL 640, 641).

86) PE₁₁₈ **kica-* 'stone, anchor' > PYup. **kica-* (*-unt*) 'stone; anchor', PInup. **kica-* 'anchor' (CED 177). This word is hardly derived from **kitə-* 'to sink', because of the neutral meaning 'stone'. The development 'stone' > 'k. of stone (anchor)' is quite reliable, while the reverse development is problematic. On the contrary, the semantic development 'stone' > 'anchor' may have been assisted by homophony with PE **kitə-* 'to sink'.

Altaic **kósV* (~ *-u-*) 'chain, ring (of stones)' > T.-M. **kosa*, Kor. **kúsír*, Jap. **kúsári*. An Eastern isogloss. Cf. Old Koguryo **kos* 'gem, jewel' (EDAL 726).

87) PE₁₀₄ **ki-na* (**kiR-kur*, **kira-m*) interrogative pronoun: 'who' > PYup. **kina* (*kin-kur*, *ki[r]lam*, *ki-tu-*) id., PInup. **kina* (*kit-kut*, *kia/ kinaup*) id. (CED 173, 174). PE has a variant **qa-* in the interrogative pronouns 'where, why, how, how much'.

Altaic **ka(j)* 'who', interrogative pronoun > Turk. **kem*, **Ka-*, Mong. **ken*, **ka-*, T.-M. **xia* (**xai*), Kor. **ka*, Jap. **ka* (EDAL 74).

88) PE₁₁₁ **kinəb-* 'to dry' > PYup. **kinəb-* 'to dry; dried; dried meat or fish'. Cf. PYup. *kənəb-* 'viscous' (CED 169, 175). PInup. **kinəb-* 'dry, without water'. This root is confused with 'wet, damp, dirty' and other words beginning with **kin...* or **kən...* in CED.

Altaic **kǐúne* 'to burn, get burnt' > Turk. **kǔn-*, Mong. **köye*, Kor. **kǐúnr-*, Jap. **kuànkàra-*. The Jap. form reflects a suffixal variant **Kǐúne-KV-* (EDAL 853).

89) PE₁₁₃ **kiŋuɣ* 'insect, shrimp, worm' > PYup. **kiŋuɣ* id., PInup. **kiŋuɣ* 'shrimp, sand flea' (CED 176).

Altaic **k̄iŋu* 'worm, grub' > Mong. **kiɣur-*, T.-M. **xuŋVl-*, Jap. **kuà*. The Jap. form goes back to **k̄iŋ(u)-gV* (EDAL 823).

90) PE₇₀₅ **kuyim-Ra-* 'to swim; wave' > PYup. **kuyim-Ra-* id. (CED 180).

Altaic **k̄éja-pV-* (~ -o) 'to slide, swim' > Turk. **Kāj-* (Turkish dial. *kajp-*), Mong. **kajiba-*, T.-M. **xeje-*. A rather complicated Western isogloss; it is not excluded that PTM **xeje-* 'sink, float, flow' should be replaced by forms like Evenki *kajama*, Orok *qajama* 'bare (not fur-lined) skis'.

91) PE₁₄₀ **kukəɣ*, **kukəkra-* 'nail, claw' > PYup. **kukəɣ-*, **kukəkra-* 'arrowhead', PInup. **kukiɣ*, **kukurva-* 'nail, claw; hoof; barb' (CED 180). Inup. **kukurva-* < **kukuyra-*.

Altaic **kōkí* 'hook' > Turk. *kök*, **köken*, Mong. **kögene*, T.-M. **kūkta*, Jap. **kunki* 'nail, peg, hook'. Initial **k-* in PTM is probably due to assimilation (**kūkta* < **kūkta*) (EDAL 833, 834).

92) PE₁₄₂ **kumay* 'louse' > PYup. **kumay* 'louse', PInup. **kumay* 'louse' (CED 181).

Altaic **kumi* (~ -o-, -iu-) 'a k. of insect' > Turk. **Kumir-*, Mong. **kömörege*, T.-M. **kumke*, Kor. **kəmí*, Jap. **kümüû*.

93) PE₄₂₀ **luna* 'land, eart, country' > PYup. **luna* 'land, earth, country; tundra', PInup. **nuna (-viɣ)* 'land, earth, inland' (CED 240).

Altaic ? > Mong. **nuntug* / **nintug* 'fatherland, own territory'; rather here than to **niāŋu* / **ŋiāŋu* 'field, grazing place, hunting place' > Turk. *(i)*aiŋir*, T.-M. **ŋurŋi*, Kor. **nón*, Jap. **nua* (EDAL 988), cf. also IE **lendh-*, Uralic **lamte* 'lowland'.

94) PE₁₅₃ **maca-* 'sun' > PYup. **maca-* 'sun', PInup. **maca-Ů* 'sun' (CED 184). Cf. IE **mens-* 'moon'.

95) PE₁₈₂ **mańi-* (~ **manŋi-*) 'egg' > PYup. **man(ŋ)i-* 'egg', PInup. **ma[ŋ]i-* 'egg' (CED 190).

Altaic **nāmo* 'testicle' > Turk. **jum-*, Mong. *(n)*im*, T.-M. **nāma* / *māna* (**māŋa*) (EDAL 962). The T.-M. parallel is of particular interest; cf. also Uralic **muna* 'egg, testicle', Dravidian **māŋ-*, showing the original construction with the first labial consonant.

96) PE₁₈₄ **mańu[ŋ]* 'lower part in front of hood below neck, breastplate' > PYup. **mańu(ŋ)* 'breastplate, bib; part of capote under chin; front side of sth.; apron, front lap', PInup. **manu(ŋ)* 'lower part in front of hood below neck; breastplate, bib; front of (snow) house, house entrance' (CED 191).

Altaic **mōjno* 'neck' > Turk. **bōjn*, Mong. **mundaya*, T.-M. **moń-ga-n*, **moń-pen*, Kor. **mjə-k*, Jap. **nəmpV* (EDAL 939).

97) PE₁₈₉ **maŋ(r)u-* 'to plant, to sit down, root, base' > PYup. **maŋ(r)u-* 'to sit down; to plant, to shove in', PInup. **maŋuy-*, **maŋyu-ʃ* 'to drive in (peg, stick), to plant, to stick in; root' (CED 192).

Altaic **meń[o]* 'dwelling place, village' > Mong. **maji-kan*, T.-M. **mēne-*, Kor. **mǎńǎrh*, Jap. **múra*. The Kor.-Jpn. form is a derivative in **-rV* (**-IV*). The Tungusic form fits very well semantically, but raises some phonetic doubts: vowel length and the quality of *-n-* (instead of **-ń-*) do not correspond to other languages. Cf. perhaps Turk. (Oyr.) *man* 'fence' (EDAL 913).

98) PE₂₁₆ **māl-qu-* 'fur, pile, feather' > PYup. **mālqu-* 'fur, pile, feather', PInup. **mātqu-* 'fur, pile, hair; feather' (CED 197). The stem is formed by means of the well-known body part marker *-qu* (CED 197).

Altaic **moĺča* 'tassel' > Turk. **balčak* 'spike of cereals' (Chuvash *poś*), Mong. **molčag* 'tassel'.

99) PE₇₈₇ **mimci* ~ **miŋci* (**p-*) 'dried fish' > PYup. **miŋci-* (~ **p-*) 'dried fish', PInup. **pipci* (~ **m-*) 'dried fish, dried meat' (CED 262). The voiceless variant is presented as a result of assimilation before a voiceless stop at the beginning of the second syllable (CED 262).

Cf. IE **mēms-* 'meat'.

100) PE₂₅₅ **naya-(qə-)* 'to listen, to understand, to read' > PYup. **naya-q[lu]-* 'to memorize; to hear, to understand; to listen, to read, to count', PInup. **naa-qə-*, **naa-lay-* 'to read; to listen' (CED 206). The reconstruction proposed in CED (**naɖaqə-*) is impossible, because the ignored Chap. form *nayaq-* can only reflect an intervocal PE **-ɣ-*.

Altaic **lějká* 'to intend, demand' > Mong. **neke-*, T.-M. **leKe-*, Kor. **njəki-* / **nəiki-*, Jap. **niànkà-p-* (EDAL 869, 870).

101) PE₃₂₂ **Nabca-ɣ-* (~ *-ʃic-?*) 'to wrinkle the nose, to push up the nose, pug-nosed' > PYup. **Nab(i)cə-ɣ-* 'to push up the nose', PInup. **naqci-ɣ-* 'to push up (nose), to wrinkle nose, to have a pug nose' (CED 218). The connection with **Nabə-* (*-ru-ʃ-*, *-ma-*) 'to smell sth.' is unclear (CED 218).

Altaic **ŋiàkča* 'nose, part of nose' > Mong. **nagčarkaj*, T.-M. **ŋiakso*, **ŋiaksi-n*, Kor. **nǎch* (EDAL 1030).

102) PE₅₄₀ **nǎnəʃ* 'bone' > PYup. **nǎnəʃ* 'bone, skeleton; to choke on bone'. Chap. forms reflect **nə/aŋ-qu-* with the body part suffix *-qu-* (CED 226, 227).

Altaic **ńaŋo* 'nut' > Turk. **jAŋgak*, Mong. **žiyag*, T.-M. **ńaŋu-*, Jap. **mamai* (EDAL 1006).

103) PE₃₀₄ **naŋə-ʙ-* 'to stand up' > PYup. **naŋə-ʙ-* 'to stand up', PInup. **naŋə-ʙ-* 'to be standing up' (CED 215).

Altaic **niānia* 'to arrange, steer' > Turk. **jań-*, T.-M. **ńiani-*, Jap. **nama-*. The original meaning is well reconstructible as 'to arrange, take or lead (smb. or smth.) in a row' (EDAL 987).

104) PE₂₉₅ **Nayit-* 'short' > PYup. **Nanit-* 'short', PInup. **nait-* 'short' (CED 213).

Altaic **niŋči* 'thin, narrow; short' > Turk. **jiŋč-ge*, Mong. **žižig*, T.-M. **nisi-*, Jap. **minsikà-* (EDAL 1010).

105) PE₂₆₂ **nayru-* 'wrist, antler' > PYup. **nayru-* 'wrist; thumb' (CED 336), PInup. **naγruγ* 'antler, horn' (CED 208).

Altaic **niúdurgi* 'fist' > Turk. **jidruk* / **judruk*, Mong. **nidurga*, T.-M. **nurga*, Jap. **ninkír-* (EDAL 991). As shown by the Turk. variant **ju(m)druk* and Jap. **ninkír-*, the Altaic reconstruction should rather be **niú(ŋ)durgi*. Thus, the Eskimo correspondence *-ŋ-* for **-ŋd-* is quite expectable.

106) PE₃₁₀ **Napar* 'tree (foliar)' > PYup. **Napa* 'tree (growing); asp', PInup. **napaaqtu-*, **napar-* 'tree; mountain ash' (CED 216). The conjunction with the root **niapa-(ʙ-)* 'to stand erected, pole, mast' is probably secondary.

Altaic **liap[ā]* 'leaf' > Turk. **japur-gak*, Mong. **labči*, Kor. **niph*, Jap. **nàpài* (EDAL 874).

107) PE₅₁₈ **Nara-γ* 'belly, abdomen' > PInup. **nara-*, **narray* 'belly, abdomen; to get a big belly', Jen. also has the meaning 'stomach' (CED 205).

Altaic **niVjVrV* (~ *-g-*, *-r-*) 'gland' > Mong. **nojir*, T.-M. **ni(a)ru*, Jap. **múrá-túa* (EDAL 1023). The reconstruction may be **niójru*, judging by dialectal alternations in Evenki.

108) PE₆₁₉ **Nəbərtə* 'louse, parasite' > PYup. **Nəbərtə* 'louse, parasite' (CED 230).

Altaic **neji* 'louse, nit' > Mong. **ni-sa-*, T.-M. **nej(le-*, Kor. **ni* (EDAL 966).

109) PE₃₇₉ **nəbə(v)-* 'to eat' > PYup. **nəbə-* (*-(v)qə-*, *-viγ*) 'to eat; feed; place to eat', PInup. **nəbi-* (*-(v)ka-ʙ*), **nəbə-viγ* 'to eat; to feed; table' (CED 230, 231).

Altaic **lega/o* 'to eat greedily' > Mong. **laga-* 'to chew, champ, to eat as a swine', T.-M. **legbe-* (not **lebge-*) 'to eat greedily' (this word should be removed from the Altaic etymology **lebV* (~ *-p-*) 'to eat greedily', Mong. **labsi-*; instead it would be better to compare T.-M. **labada-* 'to grasp with teeth' or **lupku-* 'to suck') (EDAL 869). Cf. IE **leigh-* 'to lick'.

110) PE₇₁₅ **(Nə)k[r]uβa-* (~ **Nəkəvβa-*) 'tree, spruce tree' > PYup. **(Nə)kuβa-* (~ **Nəkəvβa-*) 'tree, spruce tree' (CED 225). Not derived from **ńəkuv-*, **ńəvkə-* 'to stand up, to be standing' (although later contaminations between both roots are possible).

Altaic **ńikrV* 'a k. of thorny tree' > Mong. **žeyergene*, T.-M. **ńikri-hta*, Jap. **mikúri* (EDAL 1009).

111) PE₃₆₂ **nəməβja-* 'worm, snake, eel' > PYup. **nəməβja-* 'worm', PInup. **nimibia-* 'water worm, snake; eel' (CED 226).

Altaic **liàmba* (~ **l̄-, -o*) 'a k. of big fish' > T.-M. **liamba-*, Jap. **nàmà(n)tù*. A Tung.-Jap. isogloss; but cf. perhaps also Turk. **jom-*: Khakas *nomza* 'dace' and Tatar *jumba*, *žumba* 'burbot' (VEWT 210) and Mong. *nümer* 'octopus' (EDAL 874).

112) PE₃₆₇ **nəŋti-*, **-ŋl-* 'cold, cool' > PYup. **nəŋti (-ab-)*, **nəŋlə-* 'frost, cold; to be cold; to cool off, to feel cold (person)', PInup. **nəŋli-*, **nəŋla-* 'to cool off; cold, cool' (CED 228).

Altaic **lūni* (~ *-e*) 'snow' > T.-M. **lūnie*, Kor. **nūn* (EDAL 891, 892).

113) PE₃₇₇ **nəqə* 'meat, food' > PYup. **nəqə (-k-ra-, -liHuβ-)* 'meat; food; to prepare food; to make poison', PInup. **nəqə (-k-ra-, -liuβ-)* 'meat; food; to cook a meal, to prepare food' (CED 230).

Altaic **nuki* 'meat' > Mong. **nugu-* > Khalkha *nugulūr* 'bloated part of stomach filled with meat', *nuguči-* 'to dress the corpse of an animal' (no connection with 'to bend'), Jap. **niku(N)* 'meat' (homophonous with Chinese borrowing 肉, but cf. *jaku-niku* 'roasted meat', *niku-buto*, *niku-zuki* 'fat, fatty' in constructions which are usual for genetically inherited words; in each of these compounds, the second part is a native word, and mixed *on/kun* readings are quite rare).

114) PE₆₀₄ **niŋə-(t-)* 'to see, to hear, to listen' > PYup. **niŋə-t- (-ruy-)* 'to see; to hear; to listen'. The affixation in Nauk. is the result of contamination with **nəŋə-q-u-* 'to hear, to listen, to read etc.' (1247). The strange Sir. form *naŋət(ə)-* 'to see, to watch', 'to open eyes' [Orr], cited in (CED 214), is the result of confusion between the normal form *nəŋət-*, widely attested in derivatives for the meaning 'to see', and Chap. *naŋtáxtaquq* 'to open eyes wide' (CED 206, 214).

Altaic **NinfV* (~ *L-*) > Turk. **jint-* 'to seek, search' (should be removed from **zíni* 'shape', EDAL 1513).

115) PE₄₂₈ **nuŋəru-* (~ **ni-*) 'moon, star, dim light' > PYup. **nuβ(r)u-*, **nuβəra-* (~ **ni-*) 'light; to lighten'. The root is frequently used in conjunction with nouns like 'sun', 'moon', 'star', 'dawn', 'lightning', 'electricity' in Chap. vocabulary examples. PInup. **nuŋu-*, **nuira-* (< **nuŋru-*, **nuŋərra-*) 'moon (not full)' (CED 133, 237).

Altaic **lúyu(-r)* (~ **l̄-, -o-, -i*) 'morning or evening dawn' > T.-M. **luŋur*, Kor. **nò'ŋr*, Jap. **núN-* / **núiN-* / **núaN-*. An Eastern isogloss (EDAL 881, 882). T.-M. and Kor. data suggest a (suffixal?) *-r* in the auslaut.

116) PE₄₃₄ **nu-ta-* 'new, young' > PYup. **nuta-* 'new; just now, right now', PInup. **nuta-* 'new; young person' (CED 242, 243). Cf. **nuka-* 'younger sibling' (CED 242).

Altaic **nébi* 'new' > Turk. **jub-ga*, Mong. **niyu-n*, T.-M. **nebi*, Kor. **nē-*, Jap. **nīpī-* (EDAL 964). Turk. **jub-ga* 'bastard, adopted son' and Mo **niyu-n* 'child, boy' (MMo *nó'un*, but Kalkha *nugūn*) reflect the Altaic relative term suffix **-gA*, also preserved in PE **nuka-* 'younger sibling'.

117) PE₅₅₃ **Nuvəja* 'cloud' > PInup. **nuvəja* 'cloud; to be cloudy' (CED 243).

Altaic **nibi* (~ *-e*) 'to smoke, to smell' > Mong. **neyü-*, T.-M. **nibu(p)-*, Kor. **nái*, Jap. **nīpà-p-* (EDAL 974, 975).

118) PE₂₇₅ **naluya-* 'to lie down, to land, to settle' > PYup. **nalul[ɣ]a-(t-)* 'to land (bird)'; means 'to become ripe, to ripen and fall on the ground' in Nauk.; PInup. **nala-*, **nallab-* 'to be lying down; to lie down, to lie on one's back' (CED 209).

Altaic **né(L)* 'to lie, put' > Mong. **niyu-*, T.-M. **nē-*, Kor. **nū-b-*, Jap. **ná-* (EDAL 964). Length in T.-M. and Kor. may reflect an auslaut resonant like **-l̄-* or **-l-*, regularly dropped in Eastern languages.

119) PE₃₈₉ **nəvəb-* 'to lie on one's back' > PYup. **nəv[ə]b-* 'to lie on one's back', PInup. **nəvəb-*, **nəvəbala-* 'to lie on one's back; to fall backwards' (CED 233).

Cf. Mong. **niyü-* and Kor. **nū-b-* with a labial stop.

120) PE₃₁₁ **nāpa-(b-)* 'to stand erected, pole, mast' > PYup. **nāpa-b-* 'to erect, to set upright; pillar, pole, mast', PInup. **nāpa-* (**-ru-*, **-b-ia-*), **nāpa-b-* 'to stand erected, to be upright; to erect, to raise up; sth. upright, post' (CED 216, 217). Not necessarily connected with **Nāpa-(b-)* 'tree' (CED 216).

Altaic **lépó* (~ **l̄-*) 'to rise, high' > T.-M. **lep-* / **lupu-*, Kor. **nòph-*, Jap. **nāmpār-* (EDAL 873).

121) PE₃₃₇ **nārə-qu-* 'head' > PYup. **nārə-qu-* 'head; skull; to have a headache', PInup. **niaqu* id. (CED 222). Cf. derivatives: Chap. *nasqínāq* (*bət*) 'part of tree with roots' and ECI *najuquti* 'root of tree' (CED 222).

Altaic **nībró* 'face, resemblance' > Turk. **jūr*, Mong. **niyur*, Jap. **nər-* (EDAL 975), Uralic **nere* 'front, beak, nose', Dr **ner_r_i* 'forehead'.

122) PE₃₈₅ **nəbīruy-* 'light, expectation, hope' > PYup. **nəbīru(y)-* 'light, glare, shine; hope, expectation'. This stem is confused with 'to eat greedily'

in CED, but the semantic range is unbelievable (CED 231). PInup. **nəβiuy-* 'to expect, to hope; to promise', NAI *nibʷiuyi-* trans. is opposed to *nibʷisuk-* 'to want to eat'. These are two different roots (despite CED), the second of which should be traced back to the prototype **nəβə-juγ-*, analyzable as the verb 'to eat' plus a desiderative affix (CED 232). Cf. a probable variant **Nəβu[γ]a-* (~ **-r-*) 'to choose' (CED 231).

Altaic **ηērā* 'day, sun, light' > Turk. **jar-in*, Mong. **naran*, T.-M. *ηēr(i)-*, Kor. **nár*, Jap. **àrí-* (EDAL 1028, 1029).

123) PE₃₅₃ **ńakuv-*, **ńavkə-* 'to stand (up)' > PYup. **ńakuv-* (-Γa-), **ńavkə-* 'to stand (up); to build up' (CED 225), PInup. **nəkuv-*, **j-* (-βa-, -raβ-) 'to stand (up); to stand on tiptoe' (CED 225).

Altaic **ηiðkê* (~ *-k-*) 'to rise, elevation' > Turk. **jok-*, T.-M. **ηðKe* ~ **ηēKu*, Jap. **ðkə-*. The reconstruction of the diphthong in this root is based on PT **j-*: one should suppose an early development **ηið-* > **jo-* in Turkic (which explains the vocalic reflex) (EDAL 1031, 1032).

124) PE₃₇₃ **ńəpə-Ju-* 'rain, drizzle' > PYup. **ńəp(ə)ju-γ* 'rain', cf. Chap. *nəptá-βaqā* 'to wet in water'. PInup. **nɪpə-* (-caγ-, -lɪju-) 'rain; damp, sweaty' (CED 229).

Altaic **ńiābo* (~ *-o-*) 'storm, natural disaster' > Turk. **jubug* (~ **jabug*), Mong. **nöye-le-*, T.-M. **ńō[be]-kte*, Jap. **nəw(u)i*. The vocalism is not quite secure, due to assimilations; nevertheless, the root seems well reconstructible (EDAL 982). But cf. also Altaic **ηiðbu* 'to pour' > Turk. **ju(b)-*, Mong. **jeyüle-*, T.-M. *ńiabe-*, Kor. **nūb-* (EDAL 1031).

125) PE₄₀₃ **ńiβ(u)-lu* 'upper part of backbone, carcass, rib of boat' > PYup. **iβu-lu-* 'rib of boat; upper bar of a carcass'; PInup. **nɪβlu-(β-)*, **niulə-* 'to break back near head; backbone of bird; first vertebra' (CED 231, 235). This stem merges with **ńiβu* 'leg' in CED.

Altaic ? > Mong. **ńigur-su* 'backbone'. This word should be removed from Altaic **ńiāke* 'neck, vertebra' > Turk. **jaka*, T.-M. **ńikimna* (EDAL 983, 984). Instead of that entry, a comparison with Mong. **žaka* 'edge, collar, neckpiece' is preferable, so that the proper reconstruction for this root would be **ńiāke*.

126) PE₄₃₈ **ńuja-*, **nuja-* 'hair' > PYup. **ńuja-*, **nuja-* 'hair', PInup. **nuja-*, (**nujja-t*) 'hair' (CED 244).

Altaic **ńiūra(-kV)* (~ *-ř-*) 'hair' > Mong. **norakai*, T.-M. **ńūrikte*, Kor. **narot* (EDAL 993).

127) PE₆₅₀ **(-η)i-* negative affix 'no, without, have no more, to lack etc.' > PYup. **(-(η)i-* id., PInup. **(-(η)i-* id. (CED 417, 418, 419). The intervocalic *-η-* is a result of morphological changes in PE and corresponds to the glottal stop in the anlaut prevocalic position.

Altaic **e* 'not' > Mong. **e-se*, T.-M. **e-* (EDAL 488).

128) PE₄₇₃ **palqə* 'ashes, hot, dry' > PYup. **palqə* 'ashes', PInup. **pal[ɬ]qə* 'hot; dry' (CED 249).

Altaic **połine* 'ashes; grey' > Turk. **oñ* (~-j), Mong. **hüine-sü*, T.-M. **pulnie* (EDAL 1170).

129) PE₄₇₀ **paməju-* (-*ba-*) 'tail, back part' > PYup. **paməju-* (-*ba-*) 'tail; back part of carcass; bulge at base of harpoon; tailbone, coccyx', PInup. **pamiu*, **pamia-* (-*lluy*) 'tail (of an animal); tailbone, coccyx; peg, tail end of arrow or harpoon' (CED 248, 249).

Altaic **pojme* (~-o) 'trousers, stockings' > Turk. **ojma*, Mong. **hojmu-su*, T.-M. **pe(j)m-*, Jap. **pamuta* (EDAL 1166).

130) PE₄₇₄ **panə-b-* 'to burn, ashes, to dry out, to become skinny' > PYup. **panə-b-* 'to burn; ashes; to starve to death', PInup. **panəb-*, **panna-b-* 'to dry out; to lose weight, to become skinny; to be very dry' (CED 249).

Altaic **peño* (~-b-, **p'-*, -o-) 'flame, light' > Kor. **pānā-*, Jap. **pəna*. A Kor.-Jap. isogloss.

131) PE₄₇₇ **papəγ*, **papər-* 'tail' > PYup. **papəγ*, **papər-* 'tail (of mammal); fish tail; to wag tail', PInup. **papəγ*, **papaa-* 'bird tail, fish tail; animal placenta; to wag tail, to wriggle, to jump around' (CED 250).

Altaic **pojɬV* (?) > T.-M. **pojpu-* 'tail', Evenki *hojpon* (TMC 2, 330), Jap. **bà* (**buà*), Ryukyū *jū* < **bujwa* 'tail'. A Tung.-Jap. isogloss.

132) PE₄₉₈ **pək(ə)ju-* (~ **pəkəRu-*) 'egg, to gather eggs' > PYup. **pəkju-* 'egg; to lay eggs; to find eggs', PInup. **plkiu-* 'wild egg; to find eggs, to gather eggs' (CED 254).

Altaic **połgi(-rV)* 'kidneys, testicles' > Turk. **bögür*, **bögrek*, Mong. **böyere*, T.-M. **pugi-* / **puki-*, Kor. **pɨr* / **pur*, Jap. **púnkúri* (EDAL 1101).

133) PE₅₀₁ **pətu-* 'leaf' > PYup. **pətu-* 'leaf', PInup. **pllu-* 'leaf; bilberry shrub' (CED 255).

Altaic **püre* 'leaf, bud' > Turk. **bür*, Mong. **bor-*, Jap. **pá*. Jap. presupposes a suffixed form **púr(e)-gV* (= Mong. **bor-gu-*) (EDAL 1111, 1112). PE reflects *-*r*-.

134) PE₇₂₈ **pər(r)i-b-* 'rufous, yellow' > PYup. **pəri-b-* 'rufous', Imaq (Inup) *pəšitoq* 'to become yellow'.

Altaic **puli* (~-*p'-*, -*l-*, -o-e) 'red' > Mong. **hulayan*, T.-M. **pula-*, Kor. **pɨrk-* (EDAL 1109). PE reflects *-*l-*.

135) PE₇₆₂ **pətyə-b* 'flea' > PYup. **pətyə-b* 'sand flea, dandruff' (CED 257). Possible connections to **mətyə-* ~ **pətyə-* 'to jump, to leap up, to spring up' are secondary. Cf. Inup. SPI (KI) *pizuaq* 'louse, parasite' [Jen.].

Altaic **pãfe* 'louse, biting insect' > Turk. **bit*, Mong. **batagana*, T.-M. **pãnta-* / **pẽnte-*, Kor. **pátári* (EDAL 1081).

136) PE₆₇₀ **pi(j)-*, **pi-ru-* 'to do, to say, to be, to happen, thing' > PYup. **pi(j)-*, **pi-ru-* 'to do; to say; to be, to happen; thing', PInup. **pi-*, **pirru-nt* 'to do; to say; to be, to happen; thing' (CED 258). Evidence speaks in favour of two different roots in PE, one with the meaning 'to be, to happen' and the other with the meaning 'to say'.

Altaic **bíju* 'to be, sit' > Mong. **büji*, T.-M. **bi-*, Jap. **bú(i)-* (EDAL 342).

Altaic **ipi* (~ *-p-*, *-e*) 'mouth; to say' > T.-M. **(x)ipke-*, Kor. **íp*, Jap. **íp-*. An Eastern isogloss (but cf. perhaps Mong. *abija(n)* (L 4), Khalkha *áóa*, Bur. *ába* 'sound' (< **ibaja* ?) (EDAL 589, 590).

137) PE₅₉₆ **piñi-* (~ **pinji-*) 'good, beautiful' > PYup. **pini-* 'to love; beautiful, good, the best; to do sth. better; to ornament', PInup. **pinni*, **pinnab-* 'good, pretty, beautiful; ugly, bad (with negation)' (CED 262, 263).

Altaic **pañi* (~ *p-*) 'ornament, attire' > T.-M. **pani-*, Kor. **piñ-*, Jap. **pinâ*. An Eastern isogloss (EDAL 1078).

138) PE₆₇₆ **pita-* (~ **m-*) 'plant, to grow up (plant)' > PYup. **pita-* (~ **m-*) 'plant; to sprout, to grow up (plants); to blossom; flower' (CED 261).

Altaic **púfo* 'poplar, branch, stick' > Turk. **būta-*, Mong. **buta*, T.-M. **pota*, Kor. **pàtir*, Jap. **pota* (EDAL 1114, 1115).

Special mention must be made of the Sir. form *misúqxəx* 'seed'. In this language (as well as in some other Yup. languages) initial voiced *v-*, *m-* are occasionally unstable before a voiceless stop in the second syllable, shifting to *p-*. On the other hand, in the same positions we sometimes see «hypercorrected» forms with secondary *m-* (e. g. Chap. *mita-* 'ochre' < **vita*). The *m-* is really voiceless in these cases, but some languages, including Sir, do not have the voiceless fricative *f-* as a phoneme. The same root is possibly present in Chap. *pīstəquq* 'to spring, to grow up (plant)'. If so, this may require us to set up a separate PE root **picu*, which can be further supported by:

Altaic **pisV* (~ *p-*, *-ia-*) 'seed, grain' > T.-M. **pise-*, Kor. **psí* (EDAL 1091).

139) PE₇₀₂ **puyimər(a)-* 'to swim' > PYup. **puyiməra-* 'to swim', PInup. **puumət-*, **puuvra-b-* 'to swim' (CED 266). The stem looks similar to **puyə-* 'to emerge, to surface', but the non-trivial endings show that these are two different (contaminated) roots.

Altaic **pábVrV* (~ *p-*, *-p-*, *-r-*) 'to swim, flow' > T.-M. **pabri-*, Jap. **pápúr-* (EDAL 1071).

140) PE₆₈₅ **puju-* 'smoke, soot' > PYup. **puju-* 'smoke; soot', PInup. **puju* (*-ba-*) 'smoke; steam, fog; to smoke, to give off smoke; soot' (CED 272).

Altaic **póné* (~ *p̄*) 'smoke' > Mong. **huni-*, T.-M. **puń-*, Kor. **p̄ńàk* (EDAL 1105). The PE reflex **-j-* instead of the expected **-ń-* is unusual.

141) PE₅₆₂ **puŋ(r)u-* 'dog' > Pinup. **puŋŋuu-* 'dog' (CED 269).

Altaic **p̄iun[e]* 'a small wild animal' > Turk. **enük* (~ **ünek*) 'puppy', Mong. **hünegen* 'fox', T.-M. **p̄iń-*. A Western isogloss, with not quite secure correspondences: in T.-M. one would rather expect **pun-*. Thus it is not excluded that the Evenki and Even forms reflect a vowel metathesis < **puni-ki* (EDAL 1161).

142) PE₅₁₆ **qaca-tuy* 'bark' > Pinup. **qaca-luy* 'bark of tree' (CED 273). An intervocalic *-t-* has been preserved in Seward Peninsula Inup. (CED 273).

Altaic **káč'u* 'covering, skin' > Turk. **KAč-(g)ač*, Mong. **kuči-*, T.-M. **kaču-*, Kor. **kàč* (EDAL 627, 628).

143) PE₇₂₄ **qǎb-cu-b-* 'white, bleached' > PYup. **qǎb-cu-Γ-*, **qǎbi-b-* 'white; shiny, brightly gleaming' (CED 278, 310). Pinup. **qaqcu-b-* 'white; to be bleached (skin)' (CED 278).

Altaic **káká* 'bright, shine' > Mong. **kaka-rkaj* (~ *-g-*), T.-M. **kakta-*, Jap. **kánká-* (EDAL 633).

144) PE₇₂₃ **qakru-b-(na-)* 'frost' > PYup. **qakru-b-(na-)* (**k-*) 'frost on trees; pounded ice', Pinup. **qaku-b-na-* 'frost; ice fog'. The connection to **qakaru-* 'to whiten, dawn' is quite problematic (CED 279).

Altaic **kǎára* (~ *-jō-*) 'thin snow, hoar-frost' > Turk. **Kiār-*, Mong. **karig* (EDAL 799).

145) PE₆₃₉ **qali-(b-)* 'covering, membrane, to cover' > PYup. **qali-(b-)* 'membrane, pellicle; to put on raincoat; to cover' (CED 274, 275, 290). Pinup. **qalə-b*, **qalli-b-*, **qallint* 'outer covering; to cover; fatty mass around internal organs'; cf. also Pinup. **qallə-pia-* 'membrane' (CED 274, 275, 290). This root is confused with **qarə-(ti-)* 'top, upper part, surface' in CED.

Altaic **kǎli* 'napeless skin, membrane' > Turk. **kel*, Mong. **kali-su*, T.-M. **xalukta* (EDAL 758).

146) PE₅₁₄ **qaltə* 'bark, scale' > PYup. **qaltə* 'bark; scale' (CED 280).

Altaic **kúl(t)a* 'bark, scales; scab' > Turk. **Kul*, Mong. **kolta-su*, **koli-*, T.-M. **xolda-ksa*, Jap. **kásá* (EDAL 851).

147) PE₆₄₀ **qanəb(-)* 'mouth, to speak' > PYup. **qanəb(-)* 'mouth; rumour; to speak', Pinup. **qanə-b* 'mouth; to speak' (CED 283).

Altaic **keŋV* 'to bite, gnaw' > Turk. **KEŋdi-*, T.-M. **keŋi-* (EDAL 666, 667).

148) PE₇₃₈ **qan-tə-*, **qan(ə)-li-* 'near, to approach' > PYup. **qan-tə-*, **qan-li-* 'to be near; nearby; recently, short time ago; to approach', Pinup. **qanə-(t-)*, **qǎli-* ~ **qanəli-* 'to be near; to approach' (CED 283).

Altaic **kãntV* 'to reach, attain' > Mong. **kan[t]u-*, T.-M. **kãnta-* (EDAL 644). For the PE forms with the affix **-li-* cf.: Altaic **kalV* (~ *-l-*) 'near, to come near' > Mong. **kalu-*, T.-M. **kal-* (EDAL 637, 638), provided the *-l-* in Altaic goes back to a simplified consonant cluster.

149) PE₆₃₇ **qarə-qa-* (*-qi-*) 'mountain, hill, to climb up' > PYup. **qarə-q(a)-* (*-qi-*) 'steep (of bank); to reach the top', PInup. **qatqa-*, **qatqi-* 'mountain; to reach the top' (CED 274). Derived from **qarə-* 'top, upper part' (CED 274).

Altaic **kōri* 'hill; embankment, boundary' > Turk. **Korum*, Mong. **kūri*, T.-M. **xurē*, Kor. **kōrāŋ*, Jap. **kūrua* (~ *-ruâ*) (EDAL 843).

150) PE₅₁₅ **qaribu* 'bark, upper layer' > PYup. **qaribu* 'bark; to take away the upper layer of sth.' (CED 275); PInup. **qaiβu-* 'bark' (CED 276). Cf. also PE **qaru* 'sore on head; to rind, detach'.

Altaic **kēfā* 'bark' > Turk. **Kař*, **Kař-dīř*, Mong. **kajir(a)-*, T.-M. **xerekte*, Jap. **kārā* (EDAL 782). The Mong. word shows that the Altaic form could contain the intervocalic cluster **-jr-*.

151) PE₆₈₂ **qava-β-* 'to sleep' > PYup. **qava-β-* 'dream; to sleep', PInup. **qava-β-* 'to sleep on back in water (seal)' (CED 291).

Altaic **kejbe* 'to lie' > Mong. **keb-*, T.-M. **kebi-*, Kor. **kibūr-*, Jap. **kəjə* (EDAL 656, 657).

152) PE₅₂₆ **qavə-(ya-)* 'duck, eider, bird' > PYup. **qavə-(ya-)* 'bird' (CED 292, 276). PInup. **qavə(y)*, **qauya-* 'eider, duck' (CED 292).

Altaic **kiōpū* 'a k. of aquatic bird' > T.-M. **kiab-*, Jap. **kūpinā*. A Tung.-Jap. isogloss. It is worth noting Yak. *kuba* 'swan' — usually derived from PT **Kugu*, but with an inexplicable *-b-*; it is, in fact, possible that some other Turkic forms — cf. Turkmen *Guv*, Noghay *quv* etc., also go back to PT **Kub(a)* — in most modern languages, naturally, the word has merged with **Kugu* (see under **kūgu*) (EDAL 699).

153) PE₆₆₇ **qavja(-)* 'sand, gravel' > PYup. **qavja-* 'sand; pebble' (CED 292, 276), PInup. **qavia* 'sand' (CED 292).

Altaic **kiažurV* 'sand, steppe, earth' > Turk. **Kajir*, Mong. **kužir*, T.-M. **kužur-* (EDAL 693).

154) PE₇₅₀ **qəci-β-* 'to spit' > PYup. **qəci-β-* 'to spit; spit', PInup. **qici-β-* 'to spit; spit' (CED 294). Cf. **qitə-* 'fog, drizzle, rain' (656).

Altaic **kūso* 'to vomit' > Turk. **Kus-*, T.-M. **xūse-* (EDAL 830).

155) PE₅₃₇ **qənbə-* (~ **qiHənbə-?*) 'fox, polar fox, wolf' > PYup. **qənbə-β-* ~ **q[i]βna-β-* 'polar fox; wolf' (CED 166, 308, 307). PInup. **qianbə-β-*, **qibnə-βa-* 'fox; wolf' (CED 301, 308, 302).

Altaic **káŋV* 'dog' > Turk. **KAŋ-čik*, T.-M. **kači-kān*, Kor. **kàŋ-* (EDAL 645).

156) PE₆₆₈ **qənu* 'slush ice' > PYup. **qənu* 'frazil, slush; sand', PInup. **qənu* 'slush snow, ice; thin layer of new ice on water' (CED 298).

Altaic **kūŋgo* (~ -o-) 'to freeze, snow' > Mong. **kūŋgar-* / **kūŋger-*, T.-M. **xūŋ-da-*, Jap. *kānkər-* (EDAL 854).

157) PE₆₄₅ **qəŋa-* 'nose' > PYup. **qəŋa-* 'nose', PInup. **qəŋa-* 'nose' (CED 298).

Altaic **kiōŋa* 'nose' > Turk. **K(i)anŋ-(ir)-*, Mong. **ka[m]ar*, T.-M. **xoŋa-*, Kor. **kóh*, Jap. **kan-k-* (EDAL 806).

158) PE₅₅₉ **qəpə-nəb* 'dog' > PYup. **qəpə-nəb* 'dog'.

Altaic **kəpI* 'dog' > Turk. **köpek*.

159) PE₉₃₁ **qəryə-* 'to gather' > PYup. **qəryə-* 'together; to gather, to assemble', PInup. **qIynə-* 'cache' (CED 298). In PInup. there has occurred a metathesis within the consonantal group **-ny-*.

Altaic **kěro* 'to remunerate, repay' > Turk. **Kaŋgan-* (~ -irŋ-) 'to obtain, to gain', Mong. **kerig* 'miserly', T.-M. **xeri-* 'price, payment', Jap. **kàtə-pək-* 'to celebrate' (EDAL 783). The semantics in Altaic is typologically close to the situation with Russian *сборы* (ingathering, exaction)' vs. *собрание* (meeting)'.
 160) PE₅₅₈ **qibnə-b-* 'black, dark' > PInup. **qibnəb-* 'black, dark' (CED 308).

Altaic **kiri* 'dirt, dirty' > Turk. **kir*, Mong. **kir*, T.-M. **(x)ir-*, Jap. **kitā-nà-* (EDAL 791, 792).

161) PE₅₅₁ **qilaya-* 'palate, roof of mouth' > PYup. **qilaŋa-* 'palate, roof of mouth', PInup. **qilay(a)-* 'palate'. This stem is not connected to **qilay (-tuy)* 'sky, cloud' (CED 304).

Altaic **kiāli* 'tongue' > Turk. **kele-*, Mong. **kele-*, T.-M. **xilŋü*, Kor. **kāró-* (EDAL 796, 797).

162) PE₅₅₀ **qilay (-tuy)* 'sky, cloud' > PYup. **qilay (-tuy)* 'sky; cloud', PInup. **qilay (-luy)* 'sky; cloud; roof, ceiling' (CED 304, 305).

Altaic **gāIV* 'clear (of sky, weather)' > Turk. **K(i)ali-* 'sky; clear sky', T.-M. **galu-* (EDAL 528).

163) PE₆₇₃ **qinəb-* ~ **qənə-b-* 'to look in, to look through, to watch' > PYup. **qinəb-* ~ **qənə-b-* 'to look in, to look ahead; to look through sth.', PInup. **qinəb-* ~ **qənə-b-* 'to see, to look; to look at, to watch; to look through' (CED 306).

Altaic ? > Turk. **kön-* 'to agree, trust'.

164) PE₆₅₆ **qitə-* 'fog, drizzle, rain' > PYup. **qitə-* 'mist, drizzle; rain', Chap. has the first vowel -ə- due the contamination with *qəciḅ-* 'to spit' (579). PInup. **qitə-b-*, (~ **-c-*) 'drizzle, fog' (CED 294). This root contaminates with

**qəci-ʃ-* 'to spit' in Inup. due the phonetic development *-it- > *-ic- in some languages, so it has been included in that entry in CED.

Altaic **kědò* 'wind, fog', Turk. **Kad*, Mong. **küden*, T.-M. **xediün*, Jap. **kəti* (~ -ua-) (EDAL 771, 772).

165) PE₅₆₈ **qumV-* 'to become dry, to stale' > PYup. **qumV-* 'to become dry'.

Altaic **kōmu* (~ -o, -a) 'drought, hunger' > Turk. **Komıl-*, Mong. **komu-kai*, T.-M. **xomī-*, Kor. **kāmār* (EDAL 838).

166) PE₆₄₃ **quɲər-(a-)* (**quɲru-*) ~ **quɲəv-* (**quɲvu-*) 'neck, scruff of neck' > PYup. **quɲHuʃ-* 'scruff of neck, top of back; to hang one's head; hump-backed whale'. Cf. PYup **qutɲuʃ*, **qutəɲa-* 'hump' (CED 317, 297). PInup. **quɲəcci-*, **quɲia-* 'neck' (CED 317).

Altaic **kuɲfV* (~ -o-) 'rump, anus' > Turk. **Koɲ*, Mong. **koɲdu-*, **koɲʃi-*, T.-M. **kuɲdu-*, Kor. **kuɲtuɲ-* (EDAL 742, 743).

167) PE₇₄₆ **qupəlbu-* 'maggot, grub, worm' > PYup. **qūpəlbu-* 'maggot, grub; worm', PInup. **qupəlbu-* 'maggot, grub; worm' (CED 318). Cf. PCh **qopalɣo-* 'butterfly'.

Altaic **kj̥àpé* 'a k. of insect, butterfly' > Turk. **kepelek*, Mong. **kibe*, Jap. **kəpəránki* (~-ua-) (EDAL 798).

168) PE₇₃₁ **quq-juy-* ~ **qubcuɫ-* 'yellow, green' > PInup. **quqcuɫ-* 'yellow; green' (CED 319).

Altaic **kōkē* (~ -i) 'blue, green' > Turk. **gōk*, Mong. **kōke*, T.-M. **kuKu* (EDAL 714). PE rather reflects an older form like **kōkē* (with consonantal metathesis).

169) PE₉₈₅ **qura-* 'pinworms, eel' > PYup. **qu[r]a-ʃta-*, **qu[r]a-ɫut-na-* 'pinworms, anal itch; eel', PInup. **quaqta*, **qurrau'na-* (~ -r-) id. (CED 312). The meaning 'eel' has obvious semantic connections with 'worm', but comparison with the stem meaning 'to split with a wedge' (CED 312) is untenable.

Altaic **kj̥óro* 'worm' > Turk. **Kürt*, Mong. **koro-kaj*, T.-M. **xirga* (EDAL 807, 808).

170) PE₅₇₄ **quvi-* 'thick, fat' > PYup. **quvi-na-* 'to become thick, fat (of person); fat', PInup. **qui-ni(r)-*, **quiv-tə-t-* 'to be fat' (CED 313).

Altaic **köpé* 'to bend; elevation, convexity' > Turk. **göpe(ne)*, Mong. **köb-* / **küb-*, T.-M. **kupe-*, Kor. **köp-*, **küp-*, Jap. **kəmpu* (EDAL 723).

171) PE₅₅₅ **tayi-* 'to come, to visit' > PYup. **tayi-* 'to come (here); to bring', PInup. **tayi-ʃ-* 'to go from place to place; to go visiting' (CED 325).

Altaic **tògà* (~ -u-) 'to see, beware' > Mong. **toɣa-*, T.-M. **tuga-* (~ -b-), Jap. **tàkù-* (EDAL 1450).

172) PE₅₃₀ **tay(i)t-uy* 'fog, mist' > PYup. **tayituy* 'fog, mist', PInup. **tak-tuy* (~ **tayituy-*), **takci-b-* 'fog; to be foggy' (CED 324, 325).

Altaic **fékù* 'to become thick (of liquids)' > T.-M. **tekti*, Kor. **tùthà-b-*, **tōi-*, Jap. **túka-* (EDAL 1412). T.-M. **tekti* and Kor. **tùthà-b-* suggest an earlier cluster like **-kt-*.

173) PE₅₃₆ **tayṅə- (~ -ṅy-)* 'black' > PYup. **tayṅə- ~ *tanyə-* 'black; dark, darkness; shadow', PInup. **tayya-* 'total darkness' (CED 333). Not connected to **tar-(r)u-* 'dark, black' and others (ibid.).

Altaic **fāgo* 'dirt (dust, clay)' > Turk. **Tog*, T.-M. **tāksa* (EDAL 1391).

174) PE₇₃₉ **tabju- (*tabəRu- ?)* 'salt' > PYup. **tabju-* 'salt', PInup. **tab(ə)-ju* 'salt; salt water, sea' (CED 334).

Altaic **fákù* (~ *-k-*) (?) 'salt, to pickle', T.-M. **taK(V)*, Jap. **túká-*. A somewhat dubious Tung.-Jpn. isogloss: the comparison is possible only if Jpn. **túká-* 'pickle' is distinct from **túká-* 'soak' (EDAL 1396).

175) PE₆₁₈ **takə(v)-* 'long, (high)' > PYup. **takə(v)- (*-li-)* 'long, high; length, height; to get or make long', PInup. **takə-*, **tak(ə)li-* 'long; to become or make long' (CED 325).

Altaic **tēga* 'high, top, mountain' > Turk. **dāg*, Mong. **deye-*, T.-M. *deg-*, Kor. **tə-*, Jap. **tàkà-* (EDAL 1359).

176) PE₆₇₄ **takuv-* 'to check out, to visit, to see' > PYup. **taku- (-jab-)* 'guard, examination; to check out', PInup. **taku (-cab-)*, **takku-* 'to check on; to visit; to see' (CED 327, 326). Cf. PE **takviy-*, **tak(u)vi-y* 'to see well, pupil of eye'.

Altaic **fākù* 'to repair' > Turk. **Tagra-*, T.-M. **taku-*, Jap. **tùkùr-* (EDAL 1393).

177) PE₅₀₉ **tama[ɲ]-* 'all, whole' > PYup. **tama[ɲ]-* 'all, whole, every', PInup. **tamaŋ-* 'all, both, whole' (CED 328, 329).

Altaic **fāmu* 'to put into, gather' > Mong. **tama-* / **tem-*, T.-M. **tama-*, Kor. **tām-*, Jap. **túm-* (EDAL 1399).

178) PE₆₇₂ **tayə-* 'to see, to look at, truth, evidence' > PYup. **tayə-* 'to see; to watch out for; to look at, to watch', PInup. **tayə-*, **tayṅə-b-* 'truth, evidence' (CED 330).

Altaic **fānyV* 'to count, recite' > Turk. **tānu-*, Mong. **tayṅa-*, T.-M. **tay-*, Cf. also Kor. *tā-* 'to tell, indicate, confess' (SKE 249, EAS 120); MMong. *ta'ul-* (HY 40) 'to understand, distinguish' (< **tayul-*) (EDAL 1399, 1400).

179) PE₆₃₁ **taRqi-* 'moon, bright' > PYup. **tanqi-* 'moon; to be bright', PInup. **tatqi* 'moon; to make the lamp shine brightly' (CED 330).

Altaic **fīòlgu* 'moon' > Mong. **tergel*, Kor. **tār*, Jap. **tùkùii* (EDAL 1435). The PE form reflects **-l-* within a cluster.

180) PE₅₃₁ **tar-(r)u-* 'dark, black' > PYup. **tarru-* 'darkness, dusk; to become dark', PInup. **tau-ʒ- (-si-), *taru-ʒa-* 'darkness; dark; black' (CED 333, 334). All the words with meanings like 'shadow, dark, black' are confused in close but different entries in CED on pp. 333, 334. Related PE stems include **tar-ʒa-*, **tar-ʒə-t-* 'black, dark, shadow', **tar-ʒə-nəʒ* 'shadow, darkness'; unrelated, but similar ones include **tab-(nəʒ)* 'soul, life force' and **taγηə- (~ -ηγ-)* 'black'.

Altaic **felbu* 'dirt' > Turk. **TAlagu*, Mong. **tolbu*, T.-M. **telbe*, Kor. **tārəb-*. The Kor. form is hard to distinguish from the one expected as a reflex of **fērū* (EDAL 1413, 1414). PE reflects **-l-*.

181) PE₅₉₀ **tat(a)-* 'all, to be full' > PYup. **tatV-* 'all, complete, whole', PInup. **tat(a)-* 'to be full; to bump into' (CED 335).

Altaic **todV* 'to be full (of stomach, belly)' > Turk. **dod-*, T.-M. **tude-*, cf. perhaps also Mong. *to-sun* 'melted fat' (< **tod-su-n?*) (EDAL 1376).

182) PE₇₀₇ **ta-u-*, **tam-ani* 'this, right here' > PYup. **ta-(v)u-na* (**ta(v)u-kura, -ruma*, **tam-ani*) 'this right here'. One of two main pronouns for 'this', with a specific paradigm that differs from other demonstrative pronouns but is analogical with **āy-* 'that' (CED 328, 480, 455). PInup. **ta(a)m-na*, (**tav-ruma*, **tav-ra-ni*, **tam-ani*) 'this, right here; finished' (CED 480).

Altaic **fā* (**fē*) 'that' > Turk. **ti-(kii)*, Mong. **te-re*, T.-M. **ta-*, Kor. **tjō*, Jap. **tā-* (EDAL 1389).

183) PE₅₂₇ **təʒmira-* 'bird, goose' > PYup. **təʒmi(r)a-* 'bird; goose', PInup. **təʒmi(r)a-* 'bird; small bird' (CED 343, 342).

Altaic **tūru* (~ **tūuro*) 'crane' > Turk. **durunja*, Kor. **tūrími*, Jap. **tūru* (EDAL 1388).

184) PE₁₀₈₉ **təki-ja-* 'tern (arctic bird)' > PYup. **təki-ja-* 'tern (arctic bird)' (CED 339).

Altaic **fiakā* 'hen' > Turk. **tiakigu*, Mong. **takija*, T.-M. **tiaku* (EDAL 1431).

185) PE₅₅₇ **təkit-* 'to come, to arrive' > PYup. **təkit-* 'to come, to arrive' (different from the homonymous **təkit-* 'to hit, to knock'), PInup. **təkit-* 'to arrive at' (CED 338).

Altaic **tioké* 'to touch, reach' > Turk. **dəg-*, Mong. **dökü-*. A Turk.-Mong. isogloss; not quite reliable, because in Turkic one has to suppose assimilative voicing (**dəg-* < **dək-*) (EDAL 1372). The original meaning in Mong. and Turk. is 'to reach, to approach', as can be seen from the archaic gerund form *tegi* that eventually became an adverb with the meaning 'until, (right) down to', characterizing the route of movement.

186) PE₅₈₃ **təʒə-* 'to fly (up)' > PYup. **təʒə-* 'to fly', PInup. **təʒə-*, **təʒmi(-l/ra-)* 'to fly (up); to be flying' (CED 341, 342).

One should consider comparison with the Turk. entry within the Altaic root **fangiri* 'oath, God' > Mong. **taŋgarag* 'oath', T.-M. **taŋgura-* 'to bow while praying', Jap. **tinkir-* 'to swear' (EDAL 1402). There are really two Turkic roots here, contaminated in some languages: one with front vowel vocalism and the meaning 'sky', the second with back vowel vocalism (with some variation) and the meaning 'God, spirit'. It is possible to delineate the two groups of forms:

1 E (with front vowel): Runic *teŋri* 'sky; gods', MK *teŋri* 'sky; Buddha' (in the meaning 'Buddha' there is no difference within the Arabic script), Saryg-Yughur *teŋer* 'sky', Hakas *tiġar* 'sky', Shor *teġri* 'sky', Oiroŋ *teŋeri* 'God; sky', Tuva *dēr* 'sky', Tofa *dēre* 'sky', Kirgiz *teŋir* 'God; sky', K-Balqar *tejri* 'God; sky';

2 A (with back vowel): all the examples have the meaning 'God, spirit' without any allusion to 'sky': Turkish, Azeri *tanrı*, Turkmen *taŋrı*, Salar *tanru*, Chagatay *teŋri* ~ *taŋrı*, Uzbek *teŋri* < **taŋrı*, Uighur *teŋri* < **taŋıri*, Tatar, Bashkir *teŋre*, Kara-Kalpak *teŋir* etc., Jakut *taŋara*, Chuvash *tura*.

Thus, we can identify a separate Turk. root with the meaning 'sky' and compare it with Mong. **teŋeri* id., Jap. **tiàntaN* ('sun' in Ryukyuan), as well as with PE **taŋa-* 'to fly (up)'.

187) PE₁₁₃₇ **tulub-* 'to drowse' > PYup. **tulub-* 'to drowse'. This root is merged with **tulub-* 'sharp tusk, to hit wit tusks' in CED, although possible semantic associations are unknown.

Altaic **fūlke* (~ *-i*) 'dream, sleep, divination' > Turk. **dūl* (*/*dūl*), Mong. **tölge*, T.-M. **tolki-n* (EDAL 1473, 1474).

188) PE₆₆₁ **tumavja-* 'round, oval' > PInup. **tumavja-* (**tumavja-*) 'round, oval'. This root has no connection to **tumə* 'trail, road' despite (CED 349).

Altaic **fōmū* 'to spin, round' > Turk. **tom-*, Mong. **tomu-*, T.-M. **tomka-*, Jap. **tūmū* (EDAL 1457, 1458)

189) PE₆₆₀ **tumə*, **tum-rab-* 'trail, track, road' > PYup. **tumə*, **tum-rab-* 'track, trail, step, road; to follow tracks', PInup. **tumə*, **tuv-rab-*, **tuv-li-* 'trail, track, road, path; footstep; to track, to follow tracks' (CED 349, 350).

Altaic **fōmi* 'trail, road' > Mong. **tom* 'trail of land animal', T.-M. **tūm-se* > Evenki *tūmŋek* 'trail (тропа)', Even *tōmRe* 'step', Udighe *tumihe* 'mountain trail, road' (TMC 2, 202–203 in the entry 'to press down, to step'), Jap. **timata* (*chimata*) 'crossroads, street', cf. also Turk. > Turkmen **tūm-ajak* 'with naked legs, pedestrian', Oyrot *tomul ajak* 'on foot (without skis)' etc.

190) PE₆₀₅ **tunə-* 'to hear, to perceive' > PYup. **tunə-* 'to hear', PInup. **tunaabə-*, **tunaq-ci-* 'to have eyes fixed on; to rely on, to put trust in'. The wide scope of meanings for the stem *tunaq-ci-* can be traced back to 'obedient', i. e. 'one who obeys, listens' as in Russian *послушный* (CED 350).

Altaic **tuye* 'to inform' > Turk. **Tüŋ-*, Mong. **tuŋ-*, T.-M. **tuŋ-*, Jap. **tuanap-* (EDAL 1477).

191) PE₅₉₃ **tun(i)-* 'to give' > PYup. **tunə-* 'to give; to spend', PInup. **tunə-*, **tuni-uqqab-* 'to give; to sell; to distribute' (CED 350).

Altaic **tūja* 'to give, give a feast' > Turk. **toj*, Mong. **tayu-*, T.-M. **taju-* (EDAL 1468). The origin of PE **-n-* is unknown.

192) PE₅₅₈ **tuqu- (-t-)* 'to die; to kill' > PYup. **tuqu- (-t-)* 'to die; death; to kill', PInup. **tuqu (-t-)* id. (CED 354).

Altaic **fuki* 'to come to an end, be exhausted' > Turk. **tüke-*, Mong. **tögüs-*, Jap. **tuku-*. Also worth mentioning is Evk. dial. *tiko-* 'to die (of exhaustion), starve' — which may, however, be a derivative of *tik-* 'to fall' (EDAL 1469).

193) PE₁₁₆₇ **turapay* 'gravel, pebble' > PYup. **tu(r)apay* 'pebble; gravel' (CED 356), PInup. **tuapay*, ? **tujakpay* 'gravel'. The form cited in SPI is quite strange because of *-ɣ* in the auslaut position. Moreover, the *-j-* reflexion is not supported by forms in other languages.

Altaic **täporV* 'earth, dust' > Turk. **topra-k*, Mong. **toyur-*, T.-M. **tap-* (EDAL 1404).

194) PE₁₁₆₅ **tu(v)ta-* 'labret, knar' > PYup. **tu(v)ta-ŋ* 'mushroom; labret (ornament around pierced lips)', PInup. **tuuta*, **tutta-* 'labret; jewel' (CED 356).

Altaic **čótakV* (~ *-ukV*) 'pulp, mushroom; lip' > Turk. **dōtak*, T.-M. **žudak-ta* / **žedukte* (EDAL 404).

195) PE₆₃₀ **uyla-* 'numerous, many' > PYup. **uyla-* 'many; to become numerous', PInup. **uyla-* 'to crowd together; to visit' (CED 361).

Altaic **ēgó* 'big, many' > Turk. **ēg-id-*, Mong. **ayu-*, T.-M. **egdi*, Kor. **ə'uí-*, Jap. **anki-rə* (EDAL 495, 496).

196) PE₆₈₉ **ujaba-ɣ* 'stone, rock' > PYup. **uj(a)ŋa-ɣ*, **jəHa-ma-* 'stone 1, anchor 2'. For Alaskan languages cf. Chap. *juyāq* (*bət*) 'high or long stone resembling a man' (CED 386, 388). In some Yup. languages there is a metathesis **uja* > **jua-*.

Altaic **biüge* 'rock, hill' > Turk. **böğür*, Mong. **böyerüg*, T.-M. **bug-*, Kor. **pàhói*, Jap. **bə* (EDAL 357).

197) PE₆₄₂ **uja-(qu-)* 'neck' > PYup. **uja-qu- (-miy)* 'neck; sth. worn around neck; shoulder load', PInup. **uja-miy* 'necklace' (CED 385).

Cf. Altaic **gurgi* 'palate' (but Mong. 'front part of throat') (EDAL 573). Even better is the comparison with Altaic **ñje* 'long hair (esp. on neck)' > Turk. **öjek*, Mong. **öjekej*, T.-M. **ñjelse* (EDAL 1037).

198) PE₇₀₈ **u-*, **u-a* 'this (near); here it is' > PYup. **u-na* (-*kurə*, -*rumə*-, **u-ani*), **u-a* 'this near; here it is; now, right now, promptly', PInup. **u-na* (-*kua*, -*uma*, -*ani*), **u-aa* 'this near; here it is' (CED 480, 385).

Altaic **ó* 'this, that (deictic particle)' > Turk. **o(-l)*, Mong. **on-*, T.-M. **u-*, Jap. **ǎ* (EDAL 1040).

199) PE₁₁₉₄ **uk(a)-* 'to give, to want to get' > PYup. **uka-* 'to give', PInup. **ukə-*, **ukka/i-tə-* 'to want more of the same' (CED 363).

Altaic **ókê* 'to give, to put' > Turk. **ök-*, Mong. **ög-*, T.-M. **ok-*, Kor. **ukir*, Jap. **ǎk-* (EDAL 1047, 1048).

200) PE₁₁₉₅ **uki(r)-* 'to stare at' > PInup. **ukki-ri-*, **ukki-tə-* 'to stare at' (CED 363).

Altaic **úku* 'to understand, look into' > Turk. **uk-*, Mong. **uka-*, T.-M. *(*x*)*oksa-*, Jap. **úká-(n)káp-* (EDAL 1490, 1491).

201) PE₇₄₇ **ukju[r]* (-*a*, -*i*) 'winter, autumn, year' > PYup. **ukiju-* (-*Ha-*, -*Hi-*) 'winter; year; autumn, fall', PInup. **ukiu-*, **ukia-*, **ukii-* 'winter; year; autumn, fall' (CED 364, 365).

Altaic **kúre* (~ -*i*) 'autumn; rain, storm' > Turk. **gür*, Mong. **kura*, T.-M. **kure-* (EDAL 747, 748).

202) PE₅₉₂ **uliv-ka-* 'full, to fill' > PYup. **uləv-* 'to overfill, to overload; to fill to overflowing', PInup. **ulipka-* 'to fill; to be full', The stem often contaminates with **ulə(-t-)*, **uləv-Ra-* 'high tide, flood, afflux', but it can be seen, based on NAI data, that the second vowel is really **-i-*, and that the original semantics is closer to 'be full' than anything else (CED 365).

Altaic **ulu* (~ -*o*) 'big, many; good' > Turk. **ulug*, Mong. **olon*, T.-M. **ule-*, Kor. **ōr-* (EDAL 1494).

203) PE₇₁₀ **ulu* 'tongue' > PYup. **ulu* 'tongue; language'; Imaq (Inup) *ulújiq* 'tongue of whale' is borrowed from Nauk., cf. *ulúxtubéquq* 'to cut out deer tongues', Chap. *ulúzik (t)* 'tongue of whale' < **ulu-ri-* (CED 367).

Altaic ? > T.-M. **lusimā* 'upper jaw, muzzle, upper lip' (TMC 1, 513).

204) PE₆₈₈ **umtu-* 'day, morning, star' > PYup. **umtu-* 'day; long time', PInup. **uvlu-* 'day; today; morning; star' (CED 370).

Altaic **ǰumi* 'fog, dusk' > Turk. **im(ír)*, **imirt* (~ **-i-*) 'fog, brume, dusk', T.-M. *umul-* 'shadow' > Evenki *umulge* (TMC 2, p. 270). PE reflects a suffixal extension with **-r*. Cf. also PE₆₄₄ **umur (-a)* 'night' (№ 207).

205) PE₁₂₂₇ **una-* 'to handle, to obtain, to kill' > PYup. **una-* (-*nt*, -*kə*-, -*ŋə-*) 'to handle; to rob, to devastate; to obtain, to catch', PInup. **unatab-* 'to beat, to kill, to struggle' (CED 371).

Altaic **guna* 'to rob, attack, torture' > Turk. **Kun-*, Mong. **gani*, Tung **gun-* (EDAL 571).

206) PE₇₁₆ **unabā-ci-* 'wood, driftwood, tree' > PYup. **unabā-ci-* 'tree (lying, cut); wood, balk', PInup. **unaqci-* 'driftwood; tree' (CED 371).

Altaic **uŋfV* or **uni-* 'pole in the house' > Mong. *(*h*)*uni-*, T.-M. **unde(ken)* (EDAL 1502).

207) PE₆₄₄ **unur (-a)* 'night' > PYup. **unuy (-a)* 'night, morning, tomorrow'. PInup. **unnuy*, **unnua-/unurra-* 'evening, night' (CED 373).

Altaic **inE(r)* (instead of **ina*) 'dawn, dusk' > Turk. **ijir*, T.-M. **ine-*, Kor. **ǎnir-im* (EDAL 586, 587). It is necessary to distinguish two roots in the Turk. entry **ijir* 'dusk' in EDAL:

I **ijir* ~ **eŋir* with an original meaning like 'evening, dusk' (marked as X below): Old Uighur *ijir* X, MK *ijir* X, Turkmen *iŋrek* X, Azeri *iŋiraz* X, Turkish dial. *inirik*, *iŋrik* X, Halaj *ǎŋgür*, *ǎŋgür* X, Karaim *eŋir* X, Balqar *iŋŋir* 'evening', Tat. *eŋger-meŋger* X, Bashkir *eŋer* X, Kara-Kalpak, Kazakh *ijir* X, Kirgiz *ijir(t)* X, 'early evening', Oyrot *eŋir* 'evening', Hakas, Shor *ir* 'evening', Saryg-Yughur *jeŋir* 'evening', Tuva *enir* 'last, some time ago', Chuvash *aner* 'yesterday', *anarak*, *and(ə)rək* X;

II **im(ir)*, **imirt* (~ **-i*) with meanings like 'fog, brume' and 'dusk': MK *imir* 'darkness, brume, thick fog', Chagatay *imir* 'fog, evaporation going up from ground to sky', Turkmen *ümür* 'fog, brume, evaporation', Turkish *ümez* 'fog', Uzbek *umür*, *imir* X, Tatar *imzi* X, Kara-Kalpak, Kazakh, Kirgiz *imirt* X (in the morning or evening) 'brume, thick fog, grey air', Oyrot *inir* X, Shor *inar* 'evaporation', Tuva *imir*, *imirtin* X, *imireš* 'glimpse', *imistel-* 'to dusk', Jakut, Dolgan *im* 'morning and evening dawn'.

The first of these roots should be compared with T.-M. **ine-* 'day is dawning' (**ine-ŋe* 'day, morning dawn', **ine-ren* 'day that is dawning' etc. and Kor. **ǎnir-im* 'evening, dusk') and goes back to Altaic **inE(r)* 'evening, dusk'. The second (with another T.-M. parallel) should be compared to PE **umtu-* 'day, morning, star'.

208) PE₆₀₇ **uŋ-uma-* 'alive, heart' > PYup. **uŋuwa- (-nt)*, **uŋuŋ-si-* 'alive; heart; (land) animal' (CED 376). PInup. **uuma- (-ru-)*, **uummant* 'alive; heart; animal' (CED 377). The word 'heart' is a deverbal noun with an instrumental suffix. The verb is formed with the perfective verbal affix **-(u)ma* (CED 144).

Altaic **üni* 'to live, rest' > Mong. **ün-ži-*, T.-M. **in-*, Kor. **nüi*, Jap. **inð-ti*. In MKor. there is a frequently observed reduction of the initial vowel (EDAL 619).

209) PE₇₁₂ **uqa-* 'tongue, to speak' > PInup. **uqa-* 'tongue; to speak, to say' (CED 377, 378).

Altaic **oki* 'to sing, recite' > Turk. **oki-*, Mong. **üge*, T.-M. **(x)og-* ~ **(x)ok-*, Kor. **o'ai-*, Jap. **uka-ip-*. Despite poor representation in T.-M., the root is well preserved elsewhere and appears to be well reconstructible for PA (EDAL 1045).

210) PE₁₂₅₂ **uq(a)-* 'to sleep (with a negative aspect)' > PYup. **uqa-ma-(η)i-* neg. 'to sleep (with neg.)', PInup. **uq-uma-ηia-* 'to sleep (with neg.): to have a nightmare, to be half-asleep'. The verb stem has a perfective formant **(u)ma-* before the negation (CED 379).

Altaic ? > Turk. **ujku* 'sleep (n.)' > Hakas *ujyč*, Chulym *ujyu*, Tofa *újgu*, Chuvash *ijγv*.

211) PE₅₇₇ **uqru-* 'fat, blubber' > PYup. **uqru-*, **uqrilyu-* 'fat, grease; blubber', PInup. **uqru-*, **uqri-ηu-* 'fat, blubber; to feel sick from eating too much fat' (CED 378).

Altaic **iúrgi* (?) 'fat; brain' > Turk. **úr*, T.-M. **irg[ü]* (EDAL 622). The PE reflex *-q-* is the same as in **ciqi-nəb* 'sun'.

212) PE₁₁₉₀ **ur-(tə-)* 'to burn, to get burnt' > PYup. **ur-(tə-)* 'to get burnt', PInup. **uu-(t-)*, **utta-* 'to be or get burnt; to burn oneself'. This stem should be separated from the PInup. root **uu-t-*, **uu-ru-β* 'to boil, to cook' for semantic reasons (it also has a different PYup. parallel) (CED 361, 362).

Altaic **dure* (~ *t-*, *-r-*, *-i*) 'to burn, set on fire' > Mong. **dür-*, T.-M. **dur-* (EDAL 485).

213) PE₁₂₆₄ **utu-*, **uci-* 'old' > PYup. **utu-*, **uci-* 'old', PInup. **utuqqa-* 'old; old person' (CED 383).

Altaic **ótê* 'old' > Turk. **ötü-*, Mong. **öte-*, T.-M. **(x)ut-*, Jap. **átá-nà* (EDAL 1067, 1068).

214) PE₆₀₈ **vi* sg., **va(η)-* pl. personal pronouns: 1 sg. «I», 1 pl. «we» > PYup. **vi (-ηa)*, **vaη-ku-ta* id., PInup. **uva-ηa*, **uva-ηγu-t* id. (CED 383). The Sir. forms with initial *m-* may reflect either the oblique case stem **mVη-* or a secondary development **v- > m-* before a nasal resonant in the second syllable.

Altaic **bì (min-)* 1sg., **b(u)E (mjun-)* 1pl. 'I, we' > Turk. **bē* (**men-*), Mong. **bi*, **min-* acc.; **ba*, **man-* acc., T.-M. **bi*; **bue*, **mü-n-*, Kor. **úri*, Jap. **bà-*. An alternation **bi / *mi-ne-* (sg.); **ba / *mju-n-* (pl.) should be reconstructed. Korean has undergone an irregular (dialectal) loss of **b-* (**úri < *bú-ri*) (EDAL 341, 342). The specific Altaic denasalisation in these pronouns is clearly seen from further Nostratic parallels. The exact same denasalisation is found in PE.

215) PE₇₀₉ **ət-vər* sg., **ət-vəci* pl. personal pronouns: 2sg. «thou», 2pl. «you» > PYup. **ət-vər*, **ət-vəci* id., PInup. **əl-vit/n*, **əl-əvci* id. (CED 106). The first part of these pronouns is the same as in the 3sg., 3pl. pronouns «he, she, they» (PE **ət-ηa*, **ət-ηi-r*), a pronominal stem with a deictic function,

presumably the same as Turk. **le/o* 'this, that'. The real interest lies in the second parts of these forms. Etymologically, they are of a compound origin, analyzable as *-*və-* (< Nostratic 2nd p. pronoun, cf. PIE **yo-*) and *-*r / -ci*. Taking into account the well-known PE consonantal alternations, we may trace these suffixes back to early PE *-*t/ *-ti*. In this case, the corresponding Altaic forms are:

Altaic **fi*, **fa* 'thou' > Mong. **či*, **ta* (EDAL 1424).

Abbreviation signs

<i>Γ</i> (in PE) —	<i>γ</i> or <i>ʋ</i>		<i>N</i> (in PE) —	<i>n</i> or <i>ń</i>
<i>H</i> (in PE) —	<i>χ, ʋ, r, j, v</i> or <i>η</i>		<i>R</i> (in PE) —	<i>r</i> or <i>j</i>
<i>L</i> (in PE and PCh, PKCh) —	<i>l</i> or <i>ł</i>		<i>R</i> (in PKCh) —	<i>r</i> or <i>ř</i>

Abbreviations of language names

AY	American Yupic		PJ	Proto-Japanese
CAY	Central Alaskan Yupik		PK	Proto-Kamchadal
Chap.	Chaplinski		(P)KCh	(Proto-)Kamchukchean
Jap., Jpn.	Japanese		PT	Proto-Turkic
MK	<i>Maḥmūd El-Kāšġarī</i>		PTM	Proto-Tungus-Manchu
(M)Kor.	(Middle) Korean		PY, PYup.	Proto-Yupik
Mong.	Mongolian, Mongolic		SK	Southern Kamchadal
Nauk.	Naukanski		SPI	Yupik of the Seward peninsula
Oyr.	Oyrot		SY	Siberian Yupik
PA	Proto-Altaic		Tung.	Tungusic
PCh	Proto-Chukchean		Turk.	Turkic
PE ₍₀₁₂₎	Proto-Eskimo(DB entry N ^o) ¹		T.-M.	Tungus-Manchu
PI, PInup.	Proto-Inupik		WK	Western Kamchadal
(P)IE	(Proto-)Indo-European			

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¹ The index numbers refer to the corresponding entries in the authors comparative Eskimo database which can be found online at <http://starling.rinet.ru>.

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В статье вначале приводятся результаты применения глоттохронологического метода к языкам чукотско-камчатской и эскимосской семей; для первой устанавливается дата распада около 500 года до н. э., для второй — около 400 года до н. э.

Вторая, основная часть статьи посвящена обоснованию ностратического происхождения базисной лексики в эскимосских языках и, конкретнее, особой близости эскимосских языков к алтайским. Отмечен ряд специфических лексических и фонетических эскимосско-алтайских изоглосс, после чего приводится сравнительный лексический материал по более чем 200 праэскимосским корням, значения которых хотя бы в ряде языков-потомков принадлежат к инвентарю значений стословного списка Сводеша и для которых обнаруживаются параллели в алтайских языках.