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TURKIC LEXICAL BORROWINGS IN SAMOYED

Introduction

The Samoyed languages belong to the Uralic language family and are spoken on both sides of the Ural mountains in Russia in northernmost Eurasia by approximately 25 000 people. Proto-Samoyed, the common ancestor of all Samoyedic languages, separated as the first outgroup of the Uralic languages, is believed to have been spoken only during the last centuries BC (Janhunen 1998; Helimski 1995). The Samoyed languages, some of which are now extinct, are traditionally separated as Northern (or Tundra) Samoyed (with Enets, Nenets, Yurats and Nganasan) and Southern (or Taiga/Mountain) Samoyed (with Selkup, Kamassian and Mator). These languages are spoken in a vast geographic area around the White Sea to the Laptev Sea, along the Arctic shores of European Russia, which includes Novaya Zemlya, the Yamal Peninsula, the Taimyr Peninsula, and down all the way to the mouths of the Ob and Yenisei Rivers in the west to the Sayan-Baikal uplands in the east.¹

Turkic borrowings were previously known both into Proto-Samoyed (PS) and into some of the later, individual daughter languages (summarized in: Róna-Tas 1988; Dybo, Normanskaja 2012; Dybo 2014: 10–11)². The borrowings are usually given in the literature as being from

¹ Juho Pystynen, Alexander Savelyev, Ante Aikio, Marko Crnobrnja, Arnaud Fournet, Onno Hovers, Alexander Vovin, Benjamin Brosig and two anonymous reviewers are gratefully acknowledged for their valuable input much improving the details of my argumentation during the manuscript preparation.

² These most convincing Turkic lexical borrowings (described by early researchers such as Ramstedt, Paasonen, Donner, Ligeti, Sinor, Joki, Doerfer, Poppe, Hajdú, Janhunen, among others) gleaned from several sources (Róna-Tas 1988; Helimski 1995; Dybo, Normanskaja 2012; Dybo 2014), include: PS *inā ‘elder brother’ < OT *ini* ‘younger brother’; PS *kâptâ- ‘to castrate’ < OT *qapti* ‘to grasp with teeth or hands’; PS *ker- ‘to enter’ < OT *kir-* ‘to enter’; PS

Proto-Turkic (PT), Old Turkic (OT), or Common Turkic (CT),³ or from a specific identified daughter language. It should probably be implicitly understood that the linguistic comparisons are made between PT, OT, and CT to PS, but this does not necessarily mean that any of these was the exact donor language. Rather, at the current state-of-the-art level of understanding, an unidentified Turkic language, likely spoken around the Sayan mountains and beyond, phonologically and semantically identical or near-identical to PT, OT, or CT, respectively, was the historical donor language for each borrowing. Chronologically, the borrowings into PS (or even Pre-PS) must have occurred thousands of years ago from one or more Turkic sources, with direct lexical borrowings between Proto-Samoyed and Proto-Turkic also being a distinct possibility,

*kil' 'sable' < OT *kil* 'sable'; PS *kil' 'winter' < OT *qil* 'winter'; PS *kır 'gray hair (of animals), light, white' < OT *qır* (CT *Kır) 'grey, grey-haired, color of horse's coat'; PS *kün 'navel' < OT *kün* 'navel, etc.'; PS *pajmā 'boots' < OT *poyma* 'felt boots' ~ CT *bałmak 'kind of shoes'; PS *puro 'gray, wolf-gray, wolf-gray dog' < OT *boro* 'gray'; PS *târ 'hair' < OT *tara-* 'to comb the hair'; PS *yam 'to wander with a tent caravan' < OT *yam* 'a posting station' & PS *kepu 'wasp' < CT *Kapun 'bumblebee'; PS *pâjkz 'dried fish' < PT *bâlik 'fish'; PS *wekānâ~*wekzr 'sturgeon' < PT *bEkre 'kind of sturgeon'; PS *juntz 'horse' < CT *junt 'horse, mare'; PS *ta(ə)j 'branch, ast' < CT *dal 'branch, willow'; PS *pât- 'sink' < PT *bat- 'sink, drown, set (about sun)'; PS *jür 'fat' < PT *ür 'fat'; PS *jemñâ- 'patch' < CT *jama- 'patch, darn'; PS *jikâ- 'sow, sharpen' < CT *(h)ējke- 'sow, sharpen'; PS *ken 'sheath' < CT *kīn 'sheath'; PS *kâps/šâ 'Zauberlöffel' < PT *Kamīč 'scoop' = PIran. *kapiči-, *kapič-aka 'ladle, scoop'; PS *kân 'lord' < PT *kân 'lord'; PS *jekâ 'twin' < PT *(h)ejki 'twins'; PS *jokâ~*jok- 'to become lost' < PT *jök-a-l- 'to be lost, to disappear'; PS *tettâ 'four' < PT *dört 'four'; PS *jür 'hundred' < PT *jūr 'hundred'. Also, possibly: PS *kem 'blood' < PT *qan 'blood' (Piispanen 2015: 249–251). All PS reconstructions are presented here exactly as given in the referenced sources, without reworking according to Helimski 2005. Note that structures like PT *ya- and *ja- are quoted interchangeably throughout this paper as two accepted variants of transcription for the same sound.

³ Proto-Turkic is a linguistic reconstruction and a theoretical source for all Turkic languages. Old Turkic, on the other hand, is the oldest actually attested form of (Orkhon) Turkic as found in *Göktürk* and *Uygur* inscriptions dating back from the 7th to the 13th century. Common Turkic, then, is defined as a taxon including all Turkic languages, except for *Khalaj* and the *Oghur* languages (currently only *Chuvash*), and is usually subdivided into *Oghuz*, *Kipchak*, *Karluk*, and *Siberian* Turkic subgroups (Johansson 1998).

since both languages existed at about the same time: PS at about 2300 BP (or 2000–2500 BP by most estimates; Janhunen 1998: 457)⁴ and PT at about 2500 BP (according to Dybo 2007). Naturally, a direct borrowing into PS (or Pre-PS) is only evident where the present Samoyed languages show regular features of inner Samoyed development; otherwise it must be a later individual borrowing into the specific Samoyed language. This paper adds to the above research in that it describes identified borrowings following similar semantic and phonological guidelines.

Curiously, some reverse early borrowings, i.e. into PT, seem to exist as well: Dybo 2014 (building on Róna-Tas 1988) proposes five potential Samoyed borrowings into PT or CT six Ob-Ugric borrowings into PT, six PT borrowings into Proto-Ob-Ugric, eight PT borrowings into Proto-Yenisseian, six PT borrowings into the Ket-Yug branch of Yenisseian, and numerous borrowings between Turkic, Mongolic, Chinese, and other languages. Turkic borrowings into individual Samoyed languages are also attested (e.g., Róna-Tas 1988: 746–747), as well as Mongol borrowings into specific Samoyed languages via a Turkic intermediate (Róna-Tas 1988: 747). Further, some Tungusic borrowings in the Samoyed languages are also known (Dybo, Normanskaja 2012: 1–11). Thus, historical Turco-Proto-Samoyed contacts are more than a distinct possibility as strongly suggested by the amassing evidence

How then can we know the direction of a borrowing? Logically, if the PS root originates in a PU root, arriving there through regular phonological change, then the borrowing, of course, must be from PS into PT. This appears to be a good test for finding PS borrowings in PT. Where, however, the PS root has no PU etymology, but the PT form also finds correspondences in Tungusic and/or Mongolic, we are quite likely dealing with a PT borrowing into PS instead (after one verifies that the Tungusic and/or Mongolic forms have not been borrowed from Turkic). Other factors to look for would be to detect phonological or prosodic

⁴ The Finnish linguist J. Pystynen (private correspondence) believes that the origins of Proto-Samoyed may even go back to as early as 3000 BP. The lexical materials of his unpublished WIP (work in progress) database of Uralic and Samoyed roots seem to demonstrate that it was older than all the other Uralic branches, and the period around 3000 BP seems to be the vantage point where individual Samoyedic languages began to show heavy lexical divergence. This would make Proto-Samoyed older than predicted by most Proto-Turkic age estimates, although this should have no bearing on the proposed hypothesis.

discrepancies in the PS root, impossible in cases where the root had already existed in a much earlier Pre-PS period; otherwise, such discrepancies could signify that the PS root is a recent borrowing, and its existence in PT would immediately suggest that the direction was PT > PS.

Some notes on the phonology of Turkic borrowings in Samoyed

Previous historical phonology findings regarding Turkic borrowings in Samoyed, most of which come from other sources (Dybo 2014), are briefly reproduced below as reference for the reader:

PT *ř, *λ > PS *r, *l (PS *l then automatically turned into *j at the end of a syllable) ; Later Turkic *ř > PS *s ; PT *a > PS *e, *e in open syllables, PS *a before *j, but PS *ä, *ê in closed syllables; PT *j- > PS *j- ; PT *h- > PT *ø-.

The prothetic addition of *j- to the Samoyedic form of some vowel-initial Turkic root borrowings are known; the phonology of such borrowings was also discussed elsewhere (Helimski, Stachowski 1995: 42) using PT *ũř ‘fat’, borrowed PS *jür ‘fat’ as an example. Another example would be: PS *jek3 ‘white’ (SW 42), borrowed from: Proto-Turkic *āk ‘white’ (VEWT 12, TMN 2, 84–5, ESTJa 1 116–117, EDT 75, Lexica 598–599). It was assumed that a phonetic rule was operating for closed syllabic roots in Samoyedic with root-initial Pre-PS *ü- or *ö-, leading to a prothetic *j- into PS. In this paper, we encounter no less than two additional borrowings of this type where the same phonological principles are at work, one of which also bears a root-initial *ö-, while the other actually bears a root-initial *o-, and also gains the prothetic *j- with the borrowing. While, indeed, the principle of prothetic *j- in Samoyed is phonologically conditioned, it would seem that this matter needs to be further explored while taking into account the full and specific conditioning factors.

Additionally, if the Turkic donor language already had a root-initial *j- it naturally remained as such in PS as well. Examples from the sources given above include: PS *jemúô- ‘to patch, to mend’, borrowed from: Proto-Turkic *jama- ‘to patch’;⁵ PS *junt3 ‘horse’, borrowed

⁵ Here we probably should assume irregular palatalization due to the preceding *j- with the borrowing. The root-final *-ńô could be considered a suffix even though no other PS root displays it, although the alternations found with

from: CT ***junt** ‘horse, mare’; PS ***jikâ-** ‘sow, sharpen’, borrowed from: CT ***(h)ējke-** ‘sow, sharpen’; PS ***jesəj-** ‘to build a chum’, borrowed from: CT ***jasa-** ‘build’;⁶ PS ***jekâ** ‘twin’, borrowed from: PT ***(h)ējkiř** ‘twins’; PS ***jokâ~*jok-** ‘sich verirren’, borrowed from: PT ***jök-a-l-** ‘to be lost, to disappear’; PS ***jür** ‘hundred’, borrowed from: PT ***jür** ‘hundred’. Of special interest are the borrowings meaning *sow*, *sharpen* and *twin*; in these, the possible root-initial **h-* has disappeared completely with the borrowing (as noted above by Dybo), while the PT cluster **-ejk-* has undergone (regular?) metathesis into PS. I suggest that in both borrowings **jek-* is likely to accommodate Samoyed prosody. Other found borrowings containing the root-initial **j-* are presented in this paper.

Other (?) known Samoyed sound correspondence rules

In addition to the sound correspondences given above, a few more may be of use for understanding very early Turkic (and other) borrowings found in Samoyed. Aikio (2002: 49 & 2006) states the following systematic sound changes in Samoyed in transition from Proto-Uralic to Proto-Samoyed (I will use here the term Pre-PS instead of PU to apply for very early Turkic borrowings into the Samoyed languages in the period before they became PS but chronologically long after the PU stage as it is determined in Róna-Tas 1988: 742):

Pre-PS **w* > PS **ø* preconsonantly or intervocalically before **i*;
 Pre-PS **j* > PS **ø* intervocalically before **i*; Pre-PS **k* > PS **ø*
 intervocalically (?) and after a liquid if followed by **i*; Pre-PS **a* >
 PS **ä* before a tautosyllabic palatal(ized) consonant; Pre-PS **i* >
 PS **ə* word initially; Pre-PS **δ'* > PS **j*; Pre-PS **δ* > PS **r*.

the Proto-Tungusic correspondence of ***neme~*name-** ‘to patch’ (TMS 1 622) (and Proto-Mongolic ***nem-** ‘to cover (by a horse cloth)’; EDAL 969–970) could indicate an intermediary **ñ-* at some earlier stage.

⁶ However, according to Ante Aikio, through private correspondence, Tundra Nenets /*ješe-*/, Forest Enets /*d'eše-*/ and Taz Selkup /*česi-*/ suggest instead Proto-Samoyed ***jesä-** ‘to spread the tent-cloth, to cover the tent with a tent-cloth’ (or ***jäsä** with Helimski’s (2005) system of reconstruction), which is regularly cognate with Proto-Uralic ***läsä-** ‘to spread, to cover’ (> North Saami *láhčit* ‘to make the bed; to spread out’) (Helimski 1999). This strongly suggests that the Samoyed root is not at all a Turkic borrowing (as suggested by previous researchers; for this reason I omitted it from the listing of known borrowings in Footnote 2), but rather of Uralic origin, a mere coincidental look-alike.

Also, regarding the lateral *-l-, it is known that Pre-PS *-l- regularly vocalizes to PS *-j-, but the retention of the root-initial Pre-PS *-l- in Samoyed occurs initially before Pre-PS *-j- (Michalove 1999). Further, a regular retention of Pre-PS *-l- into PS is also known to occur when followed by an *-a- in the second syllable (Janhunen 1981: 250, Aikio 2012: 245–246). The main part of all reconstructed Proto-Samoyed roots (and phonology) was presented by Janhunen (1977; the SW), although the Samoyed vocalism was reworked later in consistence with Helimski (2005), a system which has been applied ever since in Samoyedology.⁷

Newly found Turkic borrowings in Samoyed

In this chapter, I present new suggestions on Turkic borrowings into Samoyed accompanied by phonological and semantic details. To the best of my knowledge, these have not been previously discussed in the literature, and any and all oversights are therefore my own. A few of the suggestions represent revision of older proposals by adding or changing detail. In addition to presenting the suggested PT or OT roots I will also mention, as supportive evidence to clarify my arguments, some Proto-Tungusic, Proto-Mongolic, or Proto-Uralic forms, or data from other pertinent languages. Again, it must be mentioned that with many of these suggestions I do not claim direct borrowings from either Proto-Turkic or Old Turkic into Proto-Samoyed but rather borrowings from an early Turkic language or its variety that was very close to PT or OT and synchronic with Proto-Samoyed — as follows from the arguments of earlier researchers on these matters. Also, in a few cases, specific later Turkic languages can be indicated as direct donors into specific Samoyed languages, with these borrowings occurring in much later periods. I have opted to use the Samoyed diacritics and signs for the various Samoyed languages as presented in Janhunen's SW, the source of most Samoyed lexicon in this paper. The findings presented here

⁷ This important reworking changed some of Janhunen's reconstructed SW vowels as phonologically conditioned: PS *e => PS *ä; PS *ä => PS *a and PS *i => PS *ï (> Nganasan i) & PS *e (> Nganasan i). Thus, PS *e or *i can only be reconstructed according to the form found in modern Nganasan, the only language retaining this phonological distinction which has been lost in all other Samoyed languages.

will add to our understanding of historical linguistic processes in the far northeastern Siberia. We must fully realize the depth, breadth and extent of interactions between numerous populations in ancient times responsible for deep linguistic influence in the form of lexical and morphological borrowings, *Wanderwörter*, phonological convergences and patterns, typological changes, etc. in sub-, super- or adstrata in a world where bi- or multilingualism was the norm, sometimes likely accompanied by spoken *Lingua Franca* as well.

PS ***kürâ~*kür-** ‘to run’ > Enets *simî* ‘he ran away’ Tundra Nenets (T) *šurmbäs* ‘to run’; Forest Nenets *šurbaś* ‘to run’; Selkup *šórm̐ba* ‘it flows, drips, runs’; Kamassian *šurl'em* ‘I run’ (SW 79), borrowed from: PT ***küre-** ‘to run away’ > Old Turkic *küre-*; Karakhanid *küre-*; Yakut *kürē-*; Dolgan *kürē-*; Kyrgyz *kürgüčtö-* ‘to drive livestock’, *kürgüj* ‘cry which chases lambs’ (EDT 737; VEWT 310; ESTJa 5 146).

The Samoyed root has no Uralic etymology because, as its phonology and semantics clearly show, it represents an early Turkic borrowing already into Proto-Samoyed. Reconstruction of a Proto-Samoyed root is necessary, because its cognates are attested in both North (Enets, Nenets) and South (Selkup, Kamassian) Samoyedic. Reconstruction of a Proto-Turkic root is also necessary since it is attested in the Kipchak, Siberian and Karluk/Oghuz branches. The Turkic donor language cannot be readily identified as it must have been spoken millennia ago. The root is practically identical in both PT and PS and carries the same meanings throughout both language branches. Phonologically, the trivial vocalism (PT ***-ü-** > PS ***-ü-**) parallels and actually secures this correspondence, as is also evident from other borrowings: PS ***jür** ‘hundred’, borrowed from: PT ***jür** ‘hundred’; PS ***jür** ‘fat’, borrowed from: PT ***ür** ‘fat’ (note that in both examples, as well as in other cases involving long vowels, the long Turkic vowel is shortened in Samoyed due to prosodic reasons, and the latter borrowing additionally finds a prothetic ***j-** in Samoyed).

In addition, A. Aikio (in private correspondence) expressed the view that the PS root ***kürâ~*kür-** ‘to run’ would seem to regularly correspond to Kildin and Ter Saami *karrq-* ‘run (of animals), gallop’ with further derivatives being found in at least both North and South Saami. If further Uralic representatives of agreeable phonological form and semantic shape were to be found, we might be dealing here with

a Proto-Uralic root instead, which would invalidate this suggestion about a Turkic borrowing altogether. Arnaud Fournet suggested in private correspondence that the root could have a comparanda in PIE ***k^hers-** ‘to run’ (> Tocharian A *kursär*, Tocharian B *kwarsär* (< Proto-Tocharian ***kwärsär**) ‘league, course, path’), but the significance of this connection, if it exists, is not clear.

At the same time, the Turkic root has direct correspondences with Proto-Mongolic ***kur(u)-** ‘rapid, quick; moment, short time; to hurry’ (EDAL 745) (very well-attested: KW 198; MGCD 390, Lessing 1960: 989,991; Poppe 1927; Todaeva 1986: 177; Ramstedt 1906). As M. Crnobrnja indicated in private correspondence, however, this Proto-Mongolic needs to be reconstructed anew and separated into two roots for a number of reasons. The various Mongolic languages lumped together in the EDAL do suggest Proto-Mongolic ***kurdun** ‘quick’, not ***kur-dun**, where ***-dun** would be a suffix (because such suffix? does not exist with adjectives/abstract nouns). The exceptions breaking the mold with this new reconstruction are written in Mongolian as: *quruji-* ‘to hurry’ (which is suspiciously not to be found in the standard works by Tumurtogoo, Lessing, Kowalewski or in a number of Inner Mongolian dictionaries and therefore may turn out to be a ghost word), *qurum* ‘moment’ and Khalkha *xuram* ‘moment’, with the latter two being connected to the Proto-Turkic ***kur** ‘time’ instead; either these Mongolic noun forms are Turkic borrowings or represent a rare Proto-Mongolic root, herewith reconstructed as ***kur(am)** ‘moment’. The PM ***kurdun** ‘quick’ is also borrowed as Manchu *xurdun* (see Doerfer 1985: 145; Rozycki 1994: 112). Crnobrnja noted further that this root is also found in Nerchinsk, Barguzin and North Baikal Ewenki as *kora-* ‘to drive away’, but here it should be a borrowing. The semantics are similar to those found in Kyrgyz, although the borrowing must come from something like the Buryat *xoroox* ‘to diminish, to kill (a beast)’.

So due to these correspondences, the above mentioned potential Uralic etymology will be overlooked at least for now, because the existing Mongolic correspondence alone is enough to view this as a Turkic-in-Samoyed borrowing. One can further note that the PS root has noteworthy similarities with PFM ***korkV** ‘to run, to flee’ > Fin. *karkaa* ‘to escape’, etc. (UEW 672–673) on the Uralic side. This, if going back all the way to Proto-Uralic (in a likely identical form) and having in mind that the root is even given hesitantly in the UEW, cannot be

connected to the PS root due to phonological differences (PU *-rk- > PS *-r-, *-rk-); *ergo*, the PS root was borrowed from Turkic instead.

PS ***jumpâ** ‘moss’ > Nganasan *dünfe* ‘dummy made of stuffed clothing’; Tundra Nenets *jumb* ‘peat; turf’; Forest Nenets *d’ump* ‘red peat moss’; Selkup *t’umbv* ‘moss’; Kamassian *nə`mĭ* ‘(swamp) moss’; Mator *numbo* ‘moss’ (SW 48), borrowed from: PT ***jom~*-jon** ‘turf; weed’ > Oyrat *jon* ‘weed’; Chuvash *śom* ‘weed’ (VEWT 206; Fedotov 2 135), borrowed as: Hung. *gyom* ‘weed’ (MNYTESz 1: 1132).

Again, a Proto-Samoyed root must indeed be reconstructed here because the cognates are attested in both North (Nganasan, Nenets) and South (Selkup, Kamassian) Samoyedic. Having no Uralic etymology,⁸ this PS root finds a Turkic correspondence instead, which suggests that it is a very early Turkic borrowing. The root-final *-**pâ**- should be a suffix in Samoyed. The Turkic root may also be somehow related to Proto-Tungusic ***ñamulsa** ‘swamp moss’ (TMS 1 632–633), which is well-attested throughout the Tungusic languages. The root also seems to be borrowed (?) from somewhere into written Mongolian *ġim* ‘turf’ (Lessing 1960: 1056) and Khalkha *ġim* ‘turf’. The meaning of this root is found as ‘turf’, ‘moss’ or ‘weed’ throughout all of these languages, which is semantically reasonable. The borrowing into Samoyed, however, is specifically from Turkic as indicated by the phonology even though the root is only (now) scarcely attested in Turkic languages. The vowel change PT *o > PS *u with the borrowing is trivial and could constitute a palatalization effect due to the influence of the preceding *j-; it is also paralleled by the vocalic change of another known borrowing: PS **puro* ‘gray, wolf-gray, wolf-gray dog’, borrowed from: OT *boro* ‘gray’.

PS ***járâ**- ‘to cry’ > Nganasan *d’orəd’a* ‘to cry’; Enets *jařaro’*, *ja-rado’* ‘I cry’; Tundra Nenets *jarts’* ‘to cry’, *jar* ‘cry’; Forest Nenets

⁸ Albeit I do note a similarity with PFM **luppa* ‘lichen; moss’ (UEW 694), which, in theory, could go back to a hypothetical PU **lumpa* ‘moss’ before assimilation in the later branches of Uralic. However, this does not stand up to phonological scrutiny as this would then also presuppose the vowelization of the root initial *l- into PS *j-. However, there are no such parallels, since the PU cluster *-mp- is always retained as such in at least a few of the descending languages, and PU *l- is retained in Samoyed. Thus, PFM **luppa* ‘lichen; moss’ and PS **jumpâ* ‘moss’ cannot possibly be related.

jearas ‘to cry’; Selkup *čurigo* ‘to cry’, *čurjt saji* ‘tear(drop)’; Kamassian *t’ōrel’ām* ‘I cry’; Koibal *dzhjorlam* ‘I cry’; Mator *dzhjar-esmendja* ‘crying’ (SW 38), borrowed from Proto-Turkic **iori* (formerly **ori* (EDAL 1061–1062), see below) ‘shout, outcry; to make a noise, shout; to chant’ > Old Turkic *orla-* ‘to make a noise, to shout’; Karakhanid *ori* ‘shout, outcry’; Middle Turkic *ori* ‘shout’ (Aptullah 1934); Oyrat *orla-* ‘to moo’ (EDT 197, 230), and Chuv. *jură* ‘song’, *jurăċă* ‘singer; songwriter’, *jurla* ‘to sing, to chant’ (Skvortsov 1985: 640). Karakhanid *orlaš-* ‘to shout together’, Khakassian *orlas-* ‘to shout together’ and Oyrat *orlas-* ‘to shout together’, which were lumped together with the Proto-Turkic root in the EDAL carry *-š-*, which is a reciprocal marker, and are thus to be considered derivatives only.

Ordinarily, PT **o(r)-* corresponds to Chuvash *vb^w(r)-* or more rarely *va(r)-*, but, at least in two cases, the correspondence is instead Chuvash *ju-~jo-* even while Common Turkic suggests **o-*. Two Chuvash examples are given, one of which comes with this set. The Chuvash etymology given above is new and was suggested by A. Savelyev in private correspondence; this also clarifies a rarely discussed Turkic sound law (evident in lexical cognate examples provided in works by Oleg Mudrak (for example: Mudrak 1993; SIGTJa 2006, *passim*), although the sound law may not have been fully explored or stated before). Inclusion of this obvious Chuvash item also changes the PT reconstruction accordingly. The other example consists of a phonological parallel with Chuvash *joba* ‘grave pillar’ ~ CT **o:p-uz* ‘uneven earth’, which is evidently connected to Proto-Mongolic **oboho* ‘grave mound’, SIGTJa 2006: 221); I suggest that here the CT long vowel **o:* may be the result of a contraction of an earlier PT **io-*. As was also pointed out by Savelyev, a phonological opposition between PT **io-* and PT **jo-* would be plausible if we consider **j* as an obstruent (something like [j] or [ɟ]), which would also be supported by obstruent reflexes in geographically peripheral areas (cf. Yakut *s-*, Chuvash *ś-*, etc.).

According to this sound law, PT roots of the forms **io-* and **ia-*, which probably were rare, find a correspondence with Chuvash *jo-~ju-* and *ja-*, respectively, while the root initial **i-* is lost altogether from all such roots in the Common Turkic branch, where **o-* and **a-*, respectively, can be reconstructed instead. In other words, only the Chuvash form determines if the PT form should be reconstructed

as **io-* or **o-* (and similarly for **a*). Using this, and given the above examples, we can hence reconstruct PT **iori* ‘shout, outcry; to shout together; to chant’ and PT **iop-uz* ‘uneven earth; grave pillar; grave mound’. So, to summarize Savelyev’s brilliant suggestion, examples for **io-* (or, rather, **iö-*) are still scanty but it is nevertheless supported in a systematic way as we have the same kind of *i*-based correspondence, which does not affect the quality of the basic vowel but “adds” a *j*- in Chuvash in other cases, cf. PT **o-* > CT *o-*, Chuvash *o-* vs. PT **iö-* > CT *o-*, Chuvash *jö-* and PT **a* > CT *a*, Chuvash *o* vs. PT **ia-* > CT *a*, Chuvash *jö-* (example: PT **iak-* ‘to flow’ > CT *aq-*, Chuvash *jox-*); PT **i* > CT *i*, Chuvash *ə* vs. PT **iï-* > CT *i-*, Chuvash *jə-* (example: PT **iduk* ‘sacred’ > CT *iduq*, Chuv. *jərax*), etc.

Having no Uralic etymology, a Proto-Samoyed root must be reconstructed for this very early Turkic borrowing as its cognates are attested in both North (Nganasan, Enets, Nenets) and South (Selkup, Kamassian, Mator) Samoyedic. As was mentioned above, the prothetic addition of **j-* to the Samoyedic form of a Turkic vowel-initial borrowing is previously known, but it should not have occurred with **o-*, only with **ö-* and **ü-*. Indeed, it has not occurred here either, since the PT form as per above can be reconstructed as PT **iori*, which led directly to PS **jārâ-* ‘to cry’.

The somewhat better attested Turkic root is also found as Proto-Central-Mongolic **ori-la-* ‘to cry bitterly’, reconstructed here at the behest of B. Brosig. Earlier, the EDAL gave Proto-Mongolic **ori-*~**uri-* ‘to shout, to call’ (EDAL 1061), but the entries therein consist of two separate roots confused as one etymon. In addition to **ori-la-* given above, a separate Proto-Mongolic **uri-* ‘invite’ can also be reconstructed. cf. Khalkha *orilox* ‘to cry bitterly; scream (by camel, goat, human); to make noises of discontent’, but *urix* ‘to politely call in order to make somebody come’. Semantically, these describe different things altogether, and the roots should be kept separate. This latter suggestion was already made by Hans Nugteren (2011: 533) with Proto-Mongolic **uri-* ‘to call; to invite’. Similarities can also be spotted with Proto-Tungusic **or-* ‘roaring (of a tiger); echo; to sound, resound; to rave; to shout; to roar (of a bear); shout (of an aurochs); to call’, with a few Tungusic attestations (TMS 2 23).

As has been mentioned, Tungusic borrowings in Samoyed are also previously known (in local Samoyed languages only), and given that Proto-Samoyed is a much older language than Proto-Tungusic, assuming a Tungusic source for the old borrowing presented here instead

of from a Turkic source would pose chronological difficulties. A Mongolic borrowing already into Proto-Samoyed would have even greater chronological difficulties, and so the donor language of this borrowing into Samoyed must indubitably have been from synchronic Proto-Turkic (we can probably assume that this root has simply been lost in many of the Turkic languages over time).

PS ***jār** ‘center, middle’ (according to Helimski, E. 2005; PS ***jer**- in SW 43–44) > Nganasan *jer* ‘middle’ (C), *jarede-ama* ‘I meet, hit’ (C); *d’erimiši* ‘to get in the way’ (M), Enets *d’ered* ‘to get caught’ (T); Yurak *-jir* in *pijir* ‘in the middle of the night’; Tundra Nenets *er* “~ *jēr*”² ‘middle’ (T,L), *jeremz* ‘to hit the target’ (T,L); Forest Nenets *jer* ‘middle’ (C); Selkup *čarmīt* ‘through’ (Pr), *čari* ‘to one’s face’ (Pr), *čari-* ‘to hit, get’; Kamassian *t’ēr~d’ēr* ‘middle’; Koibal *-dzhjar* in *pindzhjar* ‘midnight’; Mator *-dzhjer* in *xaindzhjer* ‘midday wind’, *dzhjargem* ‘middle’; Taigal *-dschire* in *hinydschire* ‘in the middle of the night’ (SW 43–44), borrowed from: Proto-Turkic ***ōr** ‘inside, the essential part’ (EDT 278, VEWT 376–7, ESTJa 1, 506–512, Lexica 90, 117, Stachowski 252).

While the previously suggested borrowing of PT ***ūř** ‘fat’, borrowed as: PS ***jūr** ‘fat’ (Helimski, M. & Stachowski, M. 1995: 42) even mentioned a likely connection to PT ***ōr** ‘inside, the essential part’, there was strangely no comparison to PS ***jer** ‘center, middle’ (SW 43; now reconstructed as ***jār**), which, having no Uralic etymology, no doubt, is also a separate borrowing as outlined here. A loan etymology, as presented here, may also be quite welcome considering that there are no less than three different PS roots meaning ‘center, middle’, namely **joncā*, **jotä*, and **kī*.

Semantically, the concepts of *fat* and *inside* are very likely connected as both Helimski and Stachowski have suggested. The Samoyed *middle* corresponds semantically straight-forward to Turkic *inside*, exactly paralleling the ingeniously explained semantically absurd development of PU ***pučki** ‘tube; stalk’ > Samoyedic (*hollow*) *stalk*; *tube* > Samoyedic *inside*, *core* > Samoyedic *middle (of body)* > *body*; *refl. pronoun* (Aikio 2014: 11–15). The word and its derivatives have a wide scope of meanings in Turkic: ‘middle’ > ‘heartwood, central crossbeam, pole’ (***ōrek**), and the connection to PS ***jār**- ‘center, middle’ is clear. Interestingly, there is also Turkmen *ōz* ‘self’ from PT ***ōr** again exactly

paralleling the semantic development *inside* > *self* as found for Samoyed from PU ***pučki** above.

Phonologically, we can observe the expected prothetic **j-* added to the Samoyedic form of a Turkic vowel-initial borrowing of **ö-*, paralleling that of the borrowing suggested above and of other earlier suggestions. As was kindly pointed out by J. Pystynen in private correspondence, the change **ō* > **ā* with this borrowing may have resulted from the phoneme **ö* lacking altogether in Proto-Samoyed (Katz 1987), but it likely resulted later from palatalization in some Samoyed languages; PS **ä*, however, was probably already phonetically open-mid [ɛ], as reflected in pretty much all attested Samoyedic languages, wherefore it was likely the closest substitute for Turkic **ō*. The parallelism of the pairs PT ***ür** — PS ***jür** & PT ***ör** — PS ***jār** may also suggest that avoidance of homonymy was desired for two phonologically and semantically close roots, a separation kept also in Samoyed. The rhotics of these borrowings are connected as per Helimski (1991: 262–263).

Pre-PS ***kâl-** > PS ***kâj-** ‘to go’ > Yurak *cháíwe* ‘to ride; to go’; Tundra Nenets *xes’* ‘to go away’; Forest Nenets *käës’* (Lj), *kajš* (S) ‘to go’; Mator *kaim* ‘I am walking’ (Sp), *kaitygam* ‘travel’ (Sp), *gajtygam* ‘to go’ (Sp) (SW 51), borrowed from: PT ***gəl-** ‘to come’ (VEWT 248; EDT 715; ESTJa 3 14–16, 31–32).

The very well-attested basic Turkic verb ‘to come’ was seemingly borrowed as a Proto-Samoyed form and thus has no Uralic etymology; but it therefore underwent a semantic shift (*to come* > *to go*); this semantic shift can also occasionally be observed in other languages or between cognates of a language family. As is known, PU **-l-* regularly vocalizes to PS **-j-*, particularly at the syllable end, with a regular change expected and observed here. The devoicing of the Turkic stop occurs completely naturally and expectedly with the borrowing since PS did not have any voiced stops (i.e. **g-* > **k-*). This Turkic root was also borrowed through Yakut into Yukaghir (Piispanen 2013: 122–123).

The PS form ***kâj-** may be compared to PU ***kulke-** ‘to go’ (UEW 198), but in analogy to other known Samoyed cognates which regularly show PU **-ulk-* > PS **-uj-*, the expected outcome of PU ***kulke-** ‘to go’ in Proto-Samoyed, as suggested by J. Pystynen in private correspondence, would likewise actually be ***kuj-** (or ***kuə-**). Indeed, words like Tundra Nenets *xūlā-* ‘to float downstream’ (given with PS ***ku-** ‘treiben (INTR)’ in SW76), in other varieties with verbal forms like *xūʔla-*,

suggest the full PS form of ***kuə(-)Clā-**, according to A. Aikio (private correspondence). This may then not even be connected to PU ***kulke-** at all in the first place, as only the Nenets part *xū-* > PS ***kuə-** would be comparable. Then, Selkup (Pr) *qurigo* ‘to carry downstream’ must actually reflect Proto-Selkup ***qūrə-**, which then would regularly go back to PS ***kā-**, not PS ***ku-** (as it is given in SW76); in contrast, only PS ***ku-** would be reflected as Proto-Selkup ***kū-~*ku-**, suggesting that this Selkup word does not belong in this comparison at all. Further, Selkup *qəl-* ‘to go by foot’ is incorrectly given under PU ***kulke-** in the UEW; there is no evidence whatsoever that PU ***-lk-** would have ever been retained as PS ***-l-** (instead of ***-j-**). Furthermore, Kamassian *kāl~xāl-* ‘to go’, presented as representative of PU ***kulke-**, does not even exist as it is falsely inferred from *kallam~kalam* ‘I go; I wander; I go away’, which is derived from *kan-* ‘to go’ (< *kan-lam*; cf. *kanaʔ* ‘go!’). In other words, this fragmented picture shows that there is no evidence linking PS ***kâj-** (or any Samoyed word for that matter) to a hypothetical PU ***kulke-** and a loanword etymology should instead be searched for.

Another possible comparison is to Tocharian ***śäl~*kal-** ‘to go’ (< PIE ***k^welh1~*k^wl^h1-**). While some Tocharian borrowings in Samoyed have previously been suggested, Kallio has convincingly argued against them (Kallio 2004), and his own, hesitantly given, suggestion (namely PS ***wën** ‘dog’, borrowed from Pre-Tocharian ***kwëñə** ‘dog; sg.obl. form’; cf. Pre-Tocharian ***ku** ‘dog’; sg.nom. form) unfortunately does not seem very convincing to me either, even if it is a likely borrowing from somewhere, at least as currently presented; the conclusion should be that there are no Tocharian borrowings in Samoyed, and again the Turkic borrowing etymology for the PS root at hand is the most convincing hypothesis instead.

Lastly, although the PS form also bears some resemblance to PFV ***käwe** ‘to go’ (UEW 654–655), it cannot be connected due to phonological differences. The Turkic root may also be found in Ewenki *gel-* & Oroq *gilin-* ‘трогаться с места, с трудом собираться в путь = to take off, to hit the road’ (TMS 1 150,178 suggests ***gel-**), with this very limited Tungusic spread exactly suggesting that these are Turkic borrowings in these languages.

The Turkic root may find a correspondence with the Proto-Central Mongolic ***geldüri-** ‘to walk slowly’, reconstructed here, although the morpheme construction is unclear — with a meaning matching that in PU ***kälä** ‘to wade’ (UEW 133–134). Previously, the EDAL has suggested

Proto-Mongolic **gel-* ‘to walk slowly’ (EDAL 538), based on the forms of written Mongolian *geldüri-* (Lessing 1960: 375), Khalkha *geldre-*, Kal-muck *geldr-* (Ramstedt 1935: 132), Dagur *geldure-* (Todaeva 1986: 131), and Middle Mongolian *geli-* ‘to catch up; to chase’ (Haenisch 1939)⁹. However, Middle Mongolian *geli-* cannot belong here¹⁰ due to phonological and semantic differences. Therefore, I suggest a new Proto-Central Mongolic reconstruction instead, and further suggest that the Middle Mongolian *geli-* is actually a Tungusic borrowing (cf. Proto-Tungusic **gelē-* ‘to search; to ask, to demand’ (EDAL 537; TMS 1 179) (> Ewenki *gelēkme-* ‘to search’, and also attested in Ewen, Negidal, Ulcha, Orok, Nanai, Oroch, Udehe and Solon), which also has been borrowed as Dagur *gelī-* ‘to go for something; to search’ (Todaeva 1986: 131).¹¹ Semantically, we find Tungusic ‘to search’ > Mongolian ‘to chase’; e.g. also the semantics of PFU **kenčV~*kečV* ‘to search’ (UEW 145–146) > Mansi *känš.-, käš.-* (TJ) ‘beten’, *kinš-* (KU P), *kins-* (So.) ‘jagen, suchen, beten’. The same semantic idea is also evident with: Mansi *sēl-* (KM) ‘beschaffen’, but: *sēl-* (N) ‘suchen, erwerben, kaufen’, not to mention the widely developed semantics of PU **kunta* ‘to hunt, to catch, to kill; hunting party’, found in different languages (as Aikio (2006) has aptly demonstrated) as: ‘to find’, ‘to see’, ‘to listen’, ‘to hear’, ‘to hunt’, ‘to kill’, ‘to murder’, ‘to catch’, ‘to grab’, ‘to touch’, ‘to take’, ‘trace of a print’, ‘the catch of the hunters: prey & sacrificial animal’ as well as ‘community’, ‘friend’, ‘kinship’, ‘homestead’, ‘district’ and ‘army’.

PS **kâjm-* ‘short’ > Nganasan *kaememea* ‘it is short’ (C), *ka'al'iku* (C), *kāl'ükü* (M) ‘short’; Enets *kê'eme* (Ch), *ké'ime* (B) ‘it is

⁹ Note also that Haenisch dictionary relies here on a single Chinese translation written 200 years ago after the original text, and we cannot take for granted that the translation is correct. While the Ming translators were both capable and diligent, it has still been demonstrated that they made several errors with infrequent morphemes, perhaps including this item.

¹⁰ As was kindly pointed out by B. Brosig in private correspondence.

¹¹ Tungusic elements in Dagur are, in fact, quite common, and perhaps some could also be found in Central Mongolic, but earlier layers of areal borrowings are much more complicated, as discussed with M. Crnobrnja in private correspondence: Para-Mongolic borrowings in Jurchen (for example, Janhunen 2013 & 2015), Mongol borrowings in Manchu and Ewenki (for example: Rozycki 1994), Manchu and Solon borrowings in Dagur, and Dagur borrowings in Solon (for example: Khabtagaeva 2012).

short', *kémil'aku* (B) 'short'; Tundra Nenets *xem* 'short', *xe-bimz* 'to shrink'; Forest Nenets *kǎëm* 'short'; Selkup *qamjča* (Pr) 'short'; Kamassian *khemzaga* 'short' (SW 51), borrowed from: PT **kil-* 'thin; short' > Khakassian *xilbis* 'thin'; Oyrat *qilbiq*, *qilbis* 'thin'; Chuvash *xəldərke* 'thin, frail, delicate'; Yakut *kilgas* 'short'; Dolgan *kilgas* 'short'; Kirghiz *qilmij-* 'thin'; Kazakh *qilmij-* 'thin' (VEWT 263).

This represents another early Turkic borrowing directly as a PS root, which has no Uralic etymology, and there are numerous cognates throughout the Samoyedic languages. The changed lateral (*-l- > *-j-) in the PS form tells us that the lateral used to be syllable- and root-final, like in Turkic, but the root was then suffixed (perhaps with the Samoyed equivalent, *-m-, of nominal derivational PU suffix *-ma). Semantically, the meaning is identical in all languages, with some secondary semantic development available.

PS **ārō* 'size' > Enets *aruahaz* 'to grow', Tundra Nenets *ɲar* 'size', *ɲarāmz'* 'to enlarge', Forest Nenets *ɲaaroms'* 'to grow'; Mator *orogaja* 'holiday; feast' (< **ārō-kājā*) (> PS **ārka* 'big' > Enets *agga* 'big'; Tundra Nenets *ɲarka* 'big'; Selkup *wərqi~warqi* (Pr) 'big'; Kamassian *urjo* 'big'; Koibal *urga* 'big'; Mator *orga* 'big' (borrowed as Tofalar *orgó* 'big'); Taigi *argó* 'big', *orgo-bú* 'river, lit. big water' (SW 19), borrowed from: Proto-Turkic **ur* 'growth, excrescence' (very well-attested in the Turkic languages, cf. Turkish *ur* 'growth, excrescence; fibroid, wen, neoplasm'; Tatar *ūrī* 'growth'; Azerbaijani *ur*; Shor *ur*; Yakut *ur*; Tuvan *uru*; Kyrgyz *ur*; Oyrat *ur*, Nogai *uri*, Kazakh *ūra*; Bashkir *ūrū* (EDAL 1504), and it is also borrowed as Written Mongolian *ur* 'growth'; ESTJa 1, 598–599).

To the best of my knowledge, no Uralic etymology has been presented for this PS root, although this could be an oversight on my part. However, I herewith suggest a borrowing etymology for this root, yet again from a Turkic source. Semantically, the borrowing is non-problematic: 'size', 'big' and 'to grow' are all related concepts. The word-initial *engma* in Nenets is naturally prothetic. The vocalism cannot be readily explained, however, as Samoyedic **ā* ~ Turkic **u* looks unusual, albeit we are dealing with back vowels. Perhaps this could be explained if this were a Southern Samoyed loan into Turkic, but the Turkic form

has clear Tungusic and Mongolic counterparts (see below) and therefore the direction of borrowing must conclusively be PT > PS.¹² Most certainly, numerous derivatives of this root exist in both Samoyed and Turkic, but the original noun stem represents the borrowing correspondence between them.

Also, there is Proto-Mongolic **urgu* ‘to grow’ (also well-attested, cf. Modern Mongolian *urgax* ‘to grow’; EDAL 1504), which even has the plosive as found in the Samoyed derivative, although this could be coincidental. The Turkic root is also found in Nanai *ure-* ‘to grow’, and seemingly as derivatives in Nanai *urekte* ‘sprout’ and Ewenki *uruktu~uruptu* ‘bush’ (Vasilevich 1958: 453,454). Further, there is Literary Manchu *ursan* ‘sprout’ and Jurchen *uru-xe* ‘ripe’ (these picked from TMS 1 323; TMS 2 286–287). The Tungusic suffixation pattern of the derivatives may suggest that these are original forms, in which case a bare Proto-Tungusic root of **ure-* ‘to grow’ can be reconstructed. All of these factors suggest the direction of borrowing as Proto-Turkic to Proto-Samoyed.

Mator *kargui* (P), *xargoj* (Sp) ‘raven’ and Karagas *karhúl* ‘raven’ (SW 55), borrowed from the Turkic languages, cf. Tuvan *kargui* ‘raven’ (Sojotisch in the SW) < PT **kArga* ‘crow’ (VEWT 237; TMN 3 384; ESTJa 5 303–304; Lexica 171), also borrowed as: written Mongolian *qarya* ‘raven’ (Shcherbak 1997: 134).

I suggest that the South Samoyed Mator and Karagas words for ‘raven’ are Turkic borrowings as shown from both phonological viewpoints. These forms were previously assumed (in the SW) to originate in the (suffixed) Proto-Samoyed set of **kâŋġâjġâ* ‘raven’, with the Turkic Tuvan form, mentioned in the SW (as Sojotisch), implicitly being an assumed Samoyed borrowing. Instead, given that the Tuvan form goes back to a Proto-Turkic root (< PT **kArga* ‘crow’), the borrowings evidently occurred in the other direction. That is, the borrowing went

¹² Also, as was noted by J. Pystynen in private correspondence, there is also a vaguely similar PU root **erV* ‘big, large, much, many; old’ (UEW 75–76), although this has other suggested Samoyed correspondences (Nenets, Nganasan, Selkup, Koibal and Mator) and it should therefore not bear any importance for the comparison at hand here. Actually, this PU root indirectly suggests that the non-related PS **ârâ* ‘size’ bears another origin and is indeed borrowed as suggested here.

from Tuvan *kargui-kāryan* ‘raven’ (cf. also Tofalar *qaryan* ‘raven’) into Mator *kargui* and Karagas *karhúl* specifically.

Janhunen assumed that the PS root ***kârηâjâ** was of onomatopoeic origin, which is possible, although the root likely originated from PU ***kOrnV** ‘raven’ (UEW 228–229) (which Rédei also assumed was onomatopoeic in the UEW), because we also have Tundra Nenets *χârηe?* ‘raven’ and Forest Nenets *harnè* ‘raven’ (SW 55). In most cases, PU ***-rn-** is reflected merely as PS ***-r-**, but for some reason (the PS root is trisyllabic?) not with this root, because we have at least the Forest Nenets form relatively unchanged and connected to the PU root. The Tundra Nenets phonological form, however, has clearly been contaminated by Tundra Nenets *wârηæ* ‘crow’, which in itself is an obvious borrowing from Western Khanty **wârηaj*: e.g. Obdorsk *wârηa*, Southern *wârηaj* ‘crow’ (as was kindly pointed out by J. Pystynen in private correspondence). Despite this phonological and semantic contamination and parallelism, Tundra Nenets *χârηe?* ‘raven’ is otherwise to be considered cognate with the PU and PS root for ‘raven’. Given this contamination, one must wonder if a closer PS reconstruction should not instead be ***kârñâjâ** ‘raven’, as suggested by the close cognate form of Forest Nenets.

In contrast, the Mator and Karagas forms above cannot belong to the PU (& PS) root, because Mator *-rg-* regularly goes back to the unvoiced PS ***-rk-** (and not to PS ***-rŋ-** or ***-rn-**); there is no suitable PS root in this case, but rather a Turkic source with the voiced *-rg-*, and therefore these South Samoyed words must have a Turkic etymology. Semantically, throughout both the Turkic and Uralic languages, we find the same word meaning either ‘raven’ or ‘crow’ or both, which is reasonable given that these birds are fairly similar in shape, appearance, behavior and sound; cf. Selkup (Pr) *kûla* ‘raven; crow’ & Tofalar *qaryan* ‘raven’, but Turkish *karga* ‘crow’. Indeed, there is also Proto-Mongolic ***ker-ije** meaning both ‘crow’ and ‘raven’, a root likely somehow connected to the PT form, and leading to numerous words throughout the Mongolic languages (SM 196; KW 226; MGCD 343; Todaeva 1986: 175).

The attested historical language situation well agrees with the idea of Turkic borrowings into the Mator, Karagas and Kamassian languages. Proto-Yakutic is suggested to have been spoken in 300 BCE at the West Sayan Range along the Yenisei River near the present town of Ust-Ula very close to Khakassia (Robert Lindsay notes); in more recent years the South Samoyed languages of Mator, Koibal and Kamassian were spoken there as well. It has also been suggested that the Turkic Toha and Tofalar

speakers used to be Mator speakers before they switched language (Eriksonas 2012). Also, Turkic (Tuvan-)Todzhin (northeastern Tuvan) speakers used to be the speakers of Mator, Koibal, Kamassian, and Karagas before their assimilation by Turkic tribes (Robert Lindsay notes). All these data point to extensive Turkic contacts for all Mator, Karagas, and Kamassian speakers, and borrowings into these languages from Turkic sources (particularly from Tuvan and its dialects) are exceedingly likely.

The many shapes of the *wanderwort* ‘*navel*’

This paper is finalized by considering three synonymous prospective *Wanderwörter*: the word for *navel*, found in three phonologically very close and parallel roots throughout various and numerous north-east Siberian languages. Following discussions with several researchers, including Marko Crnobrnja, Alexander Vovin, and Onno Hovers, the separating and clarifying details can be outlined below. The three phonologically similar and semantically identical roots under consideration differ only through the phonological alternation of $*n \sim *l \sim *p$ between the languages, which can be explained by changes that may have irregularly occurred in the course of ancient borrowing. All of these roots mean *navel* and have been borrowed extensively between several early languages (including the Turkic, Tungusic, Mongolic, Yukaghir, Chukchi, Eskimo, Mari, Samoyed branches), sometimes also seemingly acquiring a suffix in the process.

The first *Wanderwort* root form includes a $*-n-$ and is well represented by Proto-Samoyed $*k\ddot{u}n$ ‘navel’. The likely source of the PS form, as a borrowing, is Proto-Turkic $*k\ddot{u}n \sim *k\ddot{u}n-d\ddot{u}k$ ‘navel, navel string, centre; navel of musk-deer, musk’ (VEWT 271; EDT 725, 729; ESTJa 5, 68–69, Lexica 279–280; EDAL 818), which has also been borrowed as written Mongolian *kindik* (Shcherbak 1997: 127)¹³. I suggest that semantically the meanings of both ‘navel of musk-deer’ and ‘musk’ are secondarily developed for this root from ‘navel’ due to the practices of the *tübüüt*, a large tribe in the lands of the Turks who, according to tales, used to regularly cut out the *navel* or *musk-bag* of all their

¹³ The Turkic borrowing of Old Turkic *künj* ‘navel’, etc. as PS $*k\ddot{u}n$ ‘navel’ has previously been suggested. An Old Turkic *künj* has actually never existed, however, as this is just an Altaic reconstruction based on various Turkic and Mongolic forms.

musk-deer.¹⁴ Indeed, these exact meanings (which probably had nothing to do with the meaning of the Proto-Turkic root) are found only in Karakhanid, Tuva, Tofalar, and Oyrat. Notably, the latter is a Turkic language spoken closest to the site of the historical *tübüüt* tribe. The new meaning must have spread through trade: the *tübüüt* communities' grounds were part of the Silk Road (larger Tibet), as well as those of the Karakhanid (in Transoxania), and the Tuva and Tofalar communities in the Altai-Sayan area, along which Muslim merchants brought musk-deer musk, among other wares¹⁵ (Alikuzai 2013: 229).

Further, there is Proto-Tungusic **xum-sun* 'navel' > Manchu *xum-su(n)~xumsuxun* 'navel; eyelid' (TMS 1 447), which is somewhat close to the Turkic form (?< **kun-sun*); curiously, it uses a suffix commonly found in Mongolian (see below). There is also the hitherto non-discussed Proto-Chukotko-Kamchatkan **kinū* 'navel; flesh (of belly)' (> Proto-Chukchee-Koryak **kinu-* 'scar; to have healed scars; to be covered with a rash' > Chukchee *kinu* 'scar', *kinúw-* 'to have healed scars'; Koryak *kinu-* 'scar'; Proto-Itelmen **k'in* 'navel' > Itelmen *k'in-k'in*, *k'en-k'en* 'navel'; West Itelmen *kin*, *knin-kinkin* 'umbilicus') which bears a striking similarity to the Turkic forms. The PIE **h₃neb^h* 'navel, hub' can perhaps also be added to this comparison, although the similarity may only be coincidental.

The second *Wanderwort* root form includes an **-p-*, which is well exemplified by Proto-Mongolic **küji-sün* 'navel'¹⁶ (< **küpi-sün*)

¹⁴ There are, however, no modern Tibetan words matching the Turkic root phonologically and semantically; cf. Tibetan *gla rtsi* 'musk'; *gla ba* 'musk-deer' (Goldstein, Narkyid 1999: 200); *lte ba* 'navel' (Goldstein, Narkyid 1999: 202); *dkyil* 'centre' (Goldstein, Narkyid 1999: 46), and so only the semantic connection must have been transferred through old trade.

¹⁵ Musk is a greasy secretion with a powerful odor, produced in a glandular sack of the male musk-deer and used in the manufacture of perfumes. The musk of the Himalayan Musk-deer (*Moschus chrysogaster*) is today worth perhaps \$45 000 per kilogram (although only about 25 grams can be isolated from one male musk-deer), and thus is still a very tradable commodity.

¹⁶ Previously, the Proto-Mongolic form has been erroneously reconstructed as **köjil-sü* 'navel' (EDAL 818). I suggest that this includes a number of errors: first, the inclusion of a hyper-corrected written Mongolian form including an *-l-* (Lessing 1960: 498), which no modern Mongolic language (nor Middle Mongolian and the Qinghai-Gansu languages) has attested for this root. Second, there should be a root-final resonant in the reconstruction, since this

(> Written Mongolian *küisün* ‘navel’; Kalmyck *kīsŋ* ‘navel’; Khalkha *xüjs* ‘navel’, etc.). A much shorter ***köj** ‘navel’ (KW 234) has also been reconstructed, but this should probably be ***küj** instead (cf. written Mongolian *küi* ‘navel’; Middle Mongolian *qui* ‘navel’; Khalkha *xüj* ‘umbilical cord’; Buryat *xüj* ‘navel’; Kalmuck *kī* ‘navel’; Ordos *kū* ‘umbilical cord’). This **-j-* cannot, however, go back to any earlier **-l-*, since intervocalic elision for Pre-Proto-Mongolic is not substantiated by either external or internal reconstruction. Rather, this suggests that the Pre-Proto-Mongolic form should have been ***küŋi**, ***küpi**, or ***kügi**, and indeed there has been a reconstructed Proto-Turkic ***göpek** ‘navel’ (VEWT 285, EDT 688, ESTJa 3 52, Fedotov 1, 247, summarized in EDAL 723–724), which suggests that the Pre-Proto-Mongolic root was exactly ***küpi** ‘navel’. Also, I note that there is Buryat *xübserge* ‘umbilical cord’, which should be a borrowing from a source having the **-p-*. Then, interestingly, there is also similar Proto-Korean ***kop** ‘navel’ (Modern Korean *päk:op* ‘navel’; Middle Korean *päi-s-kop* ~ *päi-s-pok* ‘navel’; Nam Kwangu 1960; Martin, Lee, Chang 1967), which may be related through ancient borrowing.

The third *Wanderwort* root form includes an **-l-* and is well exemplified by Proto-Tungusic ***xulŋu-** ‘navel’ (likely from assimilated ***xulnu-** or fused ***xulnu-ŋV-**) (TMS 2 266,280). Further, this root is also found borrowed from somewhere in Yukaghir as TY *kuolekee* ‘navel, umbilicus’, SD *kiolaka* (Nikolaeva 2006: 217), supposedly thereafter borrowed from Yukaghir into Ewen *kō:leke-kō:len* ‘navel, umbilical cord’ (TMS 1 420), although I note that borrowing in the opposite direction is actually more likely (given that the prosody and suffixation pattern is Tungusic) (Piispanen 2018: 115). For some undisclosed reason, the root also appears to be found in the far away Uralic Mari languages; cf. Proto-Mari ***kiləmdə** ‘navel’ (Aikio 2014b:145). Then, there is also Chukchi *kil* ‘navel’ (Mudrak 2000: 75), which appears to be another local borrowing (as it is not derived from the PCK reconstructed form above).

is also found in most of the Mongolic forms. Third, the mid-vowel **ö* is only found (wrongfully) attested in written Mongolian *kōi* ~ *küi* ‘navel’, which is likely due to the fact that Arabic and Uyghur scripts of Middle Mongolian do not distinguish **ö* and **ü* in writing, and with the other Mongolic languages directly pointing at **ü*. The improved reconstructed root is thus ***küji-sün** (cf. Middle Mongolian *kuj-sun*; Buryat *xüjhe(n)*; Dongxian *kuisun*; Baoan *kisoŋ*; Dagur *kuise*; Shary-Yoghur *kūsən*; Mogul *kosun*; Monguor *kwə̌ʒə*).

In addition, there is also Proto-Eskimo **qataci-* ~ **qacatər* ‘navel’, with numerous cognates in the Yup’ik and Inuit languages (CED 281). On the American side, there is also Tlingit *kuht* ‘navel’. Finally, there is Proto-Nivkh **khəlmř* ‘navel’ > Amuran Nivkh *k`əlms* (x-) ‘navel’; Sakhalin Nivkh *k`əlmř~k`əlmər* ‘navel’, and I believe that very early (Northern) Nivkh may be the etymological origin of this particular *Wanderwort* form in Yukaghir, Ewen, Eskimo, Chukchi, Tlingit and Tungusic words¹⁷ at the very least, possibly including Mari, and possibly later irregularly also producing the other root-variants with further borrowings.

Given this extreme spread, it would seem that we are dealing with three similar, parallel roots all meaning *navel*, but all perhaps originating from one much earlier common etymon, functioning as *Wanderwörter* in the larger northeastern Siberian area. In an attempt to make sense of this situation, a Proto-Altaic root **k`iúlnu* ‘navel’ has been reconstructed elsewhere (EDAL 818–819), which bears both the *-l- and the *-n- found throughout the various languages, and which could perhaps tie together some, but not all of these forms. The question is then — without having to resort to Altaic theory — could the etymological origin of all of these languages actually be the Proto-Nivkh root **khəlmř* ‘navel’? Whichever the true etymon for ‘navel’ was at the beginning, the various borrowings in a mosaic-like pattern throughout the various languages will have to be sorted out step-by-step by later research (there are some indirect attempts found in: KW 234, Dybo 1996: 6, Lexica 280). In any case, PS **kūn* ‘navel’ obviously belongs to the lexical group containing the *-n- for this *Wanderwort*.

A few other considerations

Some of the correspondences found between the borrowings open up a few other possibilities. If prothetic **j-* should also regularly apply to **o*-initial borrowed roots, then one must also wonder about another

¹⁷ Recently, there have been numerous convincing (Northern) Nivkh in Yukaghir borrowings suggested elsewhere (Nikolaev 2015), borrowings which are also frequently found in many of the other northeastern Siberian languages (e.g., Chukchi-Koryak, Itelmen, and Tungusic). I believe the root for *navel* discussed here also belongs to such a group of borrowings, and in the future I intend to present another group of such lexical borrowings in greater detail (*forthcoming*).

possible correspondence. Could the following also constitute a lexical borrowing: PS ***jetpâ-** ‘to be hot’ (SW 44–45; this should be PS ***jätpə** according to Helimski, E. 2005), possibly borrowed from: PT ***ōt** ‘fire’ (EDAL 1067; VEW 366, EDT 34, ESTJa 1, 483–484, Lexica 356, 361, Fedotov 1, 133, Stachowski 245)? Furthermore, given the direct correspondence of PS ***ü** to PT ***ü** (as in PS ***kürâ~*kür-** ‘to run’ (SW 79), borrowed from: PT ***küre-** ‘to run away’, could the following constitute another borrowing as well: PS ***cürə** ‘Stab, Skistock’ (SW 34), borrowed from: PT ***sürük~*sürük** ‘stake, pole’ (EDAL 1276; EDT 848; VEW 420; ESTJa 7)? Further research is needed to shed light on these questions.

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