LUOBBAL SÁMMOL SÁMMOL ÁNTE (ANTE AIKIO) (Guovdageaidnu / Kautokeino)

STUDIES IN URALIC ETYMOLOGY V: PERMIC ETYMOLOGIES*

Abstract. This paper is the fifth part in a series of studies that present additions to the corpus of etymological comparisons between the Uralic languages, drawing data from all the major branches of the language family. It includes both previously unnoticed cognates that can be added to already established Uralic cognate sets, as well as a few completely new reconstructions of Uralic word roots. In this fifth part new Uralic etymologies for ten Permic (Komi and Udmurt) words are discussed. The etymologized words are: Udm čįž 'rosy, ruddy' (< PU *čijči); Udm kijla- 'be too wide; be shaky' (< PU *küljä); Komi kurav- 'gather', Udm kurja- 'scrape' (< PU *korja-); Komi ngd-kijl 'riddle', Udm nod 'cleverness' (< PU *näki-ntä); Komi pijrig, Udm pijrij 'crumb' (< PU *puri-); Komi sot-, Udm suti- 'burn' (< PU *se(w)-ptä-); Komi šog 'grief', Udm šug 'difficult' (< PU *šenkä); Komi and Udm tiš 'battle' (< PU *tukšV); Komi uńg 'quiet, gentle person; quiet, gentle; cunning' (< PU *jńa); Komi uź-, Udm iźj- 'sleep' (< PU *jśi-w-).

Keywords: Uralic languages, Permic languages, etymology, historical phonology.

Introduction

This paper will present some new Uralic etymologies for words in the Permic languages, and it forms the fifth part of a series of studies on Uralic etymology. The general principles of Uralic phonological reconstruction and the citation of lexical material followed in the present study are explained in the first paper of the series (Luobbal Sámmol Sámmol Ánte 2013), and will not be repeated here. However, because the reconstruction of vowels in the Permic languages involves many unsolved issues and there are several competing theories, the issue of Proto-Permic vocalism is briefly commented upon below.

There is no generally accepted reconstruction of the Proto-Permic vowel system. The vowel correspondences between Komi and Udmurt dialects

© 2021 Author. This is an Open Access article distributed under the terms and conditions of the Creative Commons AttributionNonCommercial 4.0 International License (http://creativecommons.org/licenses/by-nc/4.0/).

^{*} A draft version of this paper was open for public commenting and discussion on the academic social networking site Academia.edu on 9—29 Jan 2020. I wish to thank the participants Christopher Culver, Idaliya Fedotova, Arnaud Fournet, Eugen Hill, Anthony Jakob, Martin Kümmel, Andrey Nikulin, Peter S. Piispanen, Juho Pystynen, and Mikhail Zhivlov for helpful comments and suggestions.

are complicated, and it is obvious that complex vowel shifts have taken place in the Permic branch both before and after the disintegration of Proto-Permic. At least six reconstructions of the Proto-Permic vowel system have been proposed: Itkonen (1954), Lytkin (1964), Harms (1967), Sammallahti (1988), Csúcs (2005), and Zhivlov (2014: 122—124). A brief evaluation of these proposals is in order here.

The reconstructions by Itkonen (1954) and Csúcs (2005) are clearly deficient, because they do not account for all regular vowel correspondences between the Permic dialects. Itkonen's model is long since outdated and fails to take into account certain correspondences later discussed by Lytkin (1964). Csúcs's reconstruction, on the other hand, involves serious methodological problems: he groups several distinct and regular vowel correspondences under one Proto-Permic vowel phoneme, but fails to present any conditioning factors that would account for the different reflexes. Thus, his model entails a number of ad hoc solutions that contradict the fundamental assumption of regularity of sound change. Overall, the problems in Csúcs's approach to Permic vowel history are very similar to those in Bereczki's (1994) flawed reconstruction of the Proto-Mari vowel system which has been critically evaluated by Luobbal Sámmol Sámmol Ánte (2014a).

The models by Lytkin (1964), Harms (1967), Sammallahti (1988), and Zhivlov (2014) are very different in regard to their reconstructed Proto-Permic vowel inventories, but quite similar as concerns the vowel correspondences they recognize: each of these models attempts to provide a comprehensive account of the regular vowel correspondences found in the etymological material. Thus, for the purpose of etymological research it does not make much difference which of these models is applied, as almost any reconstruction in one model can easily be converted into the others. A table summarizing the correspondences between the different reconstruction systems is provided by Zhivlov (2014 : 123). However, there are certain differences in the number of reconstructed oppositions and the grouping of correspondences under phonemes in the proto-language: Zhivlov (2014) has provided evidence which indicates that some phonemic oppositions reconstructed in the earlier models can instead be explained as resulting from phonologically conditioned splits of a single Proto-Permic vowel.

In this paper, Proto-Permic reconstructions will be presented according to both Sammallahti's (1988) and Zhivlov's (2014) systems of reconstruction, the former marked with the abbreviation PS and the latter with MZh: e.g., PPerm (PS) *kŭrj-al- / (MZh) *korj-al- 'gather'. These Proto-Permic reconstructions should be interpreted as tools of etymological research. It is not meant to imply that the postulated phonetic values of vowels in either of these reconstructions should be accepted as such; there is a need for further research before a solidly argued reconstruction of Proto-Permic vocalism can be established. However, an attempt to settle the issue would be quite beyond the scope of the present paper.

1. Udm čįž 'rosy, ruddy' < PU *čijči 'tannin'

This Udmurt adjective has previously unnoticed comparanda in Saami and Mari: cf. SaaL *sihtsa* (dissimilated from **tsihtsa*), SaaN *cihca*, SaaI *ciccâ*,

SaaSk *cicc*, SaaK, SaaT *cjʒʒ* 'tannin (for dyeing fishing nets)' (< PSaa **cicg*) and MariE *čiče* 'tannin; pigment; dark (of color)', MariW *čičə* 'dark color; tannin' (< PMari **čičə*). The original meaning must have been 'tannin (used as dye)', which was generalized into 'dark color' (as attested in Mari) and then further developed into a color adjective meaning 'rosy, ruddy' in Udmurt.

As regards phonology, the consonant skeletons of the words match perfectly: the correspondence PSaa * $c-c \sim PMari *\check{c}-\check{c} \sim Udm \; \check{c}-\check{z}$ points to PU *č-č. As for Mari and Udmurt, a perfect parallel is provided by MariE čüčü, MariW čəčə ~ Udm čuž-murt 'maternal uncle' (murt 'person; stranger') < PU *čečä (Sammallahti 1988 : 536; UEW 34-35). In Saami, however, the latter word differs from *cice 'tannin' in that it shows a dissimilation of the two affricates: cf. SaaS tjietsie, SaaN čeahci, SaaI čeeci, SaaSk *čię'cc*, SaaK *čieźź*, SaaT *čieźźe* 'paternal uncle (younger than father)' (< PSaa * $\acute{c}eac\bar{e}$). Note, furthermore, that SaaL tjiehtje (< * $\acute{c}eac\bar{e}$) developed from the dissimilated Proto-Saami form via a further assimilation of the two affricates $(*\acute{c}-c) *\acute{c}-\acute{c}$). The dissimilation has a few more parallels in Saami and Finnic, but contrary to my previous interpretation (Luobbal Sámmol Sámmol Ánte 2013 : 164-165; 2014b : 14-17), it is nevertheless not quite clear whether it is a regular sound change: in addition to PSaa *cice 'tannin', a possible counterexample is also found in SaaN cuozza 'membrane' < PSaa *cuonce < PU ?*čonči (UEW 53; Sammallahti 1988 : 543), but the latter etymology is somewhat uncertain due to irregular vowel correspondences. On the other hand, it is possible that the dissimilation could have been blocked by an intervening consonant, in which case the dissimilation would have to be older than the change *-ijC- > *- $\bar{i}C$ - in Pre-Proto-Saami.

The cognation of PSaa *cicg, PMari *čiča and Udmurt čįž appears evident, as their consonants match perfectly and the semantic correspondence is quite transparent. The vowel correspondences in this etymology are somewhat complicated, however. The Saami first-syllable vowel *i points to Pre-PSaa * \bar{i} , which only rarely appears in words of Uralic origin. The ultimate origin of this vowel is not altogether clear, but at any rate it corresponds to Proto-Finnic * \bar{i} in a handful of words (e.g., SaaN birra 'around' ~ Fin piiri 'ring, circle', SaaN vihtta ~ Fin viisi 'five'). Following my earlier tentative suggestion that * \bar{i} reflects an earlier sequence *-ij- (Luobbal Sámmol Sámmol Ánte 2012 : 241—242), one could reconstruct the proto-form * $\check{c}ij\check{c}i$ for PSaa *cicg and PMari * $\check{c}i\check{c}a$. Admittedly, there are no well-established parallels for the development of the sequence *-ij- in Mari, but the reconstruction of this sequence could indeed explain why the word contains the PMari full vowel *i; otherwise PU *i is reflected in Proto-Mari as the reduced vowels * \check{i} and * \check{i} (Luobbal Sámmol Sámmol Ánte 2014a : 154—155).

The remaining question is how to account for Udm j (< PPerm (PS) *j / (MZh) *i). As is well-known, this vowel is the default reflex of PU *u and *i (Sammallahti 1988 : 530); in addition, it can also reflect PU *i under specific conditions, namely when followed by a sonorant in a root with *i in the second syllable (Luobbal Sámmol Sámmol Ánte 2012 : 240). None of these options works for Udm $\check{c}j\check{z}$, however, so it appears that we are dealing with yet another special conditioned development here. The normal reflex of PU $^*i(-i)$ is PPerm (PS) *i / (MZh) *i > Udm i, and this development is also attested in the sequence $^*-ij$ -: cf. PU *nijni > PPerm (PS) *nin / (MZh) *nin > Komi and Udm *nin 'bast' (cognate with Fin *niini , MariE

1* 163

nij, MariW $\acute{n}i$ 'bast'; UEW 707). Thus, we can assume that Udm $\check{c}i\check{z}$ derives from earlier * $\check{c}i\check{z}$ via backing of *i to i after the retroflex affricate \check{c} . This interpretation is supported by the fact that the Permic languages have extremely few words with an initial retroflex consonant followed by the close front vowel i (i.e., words beginning $\check{c}i$ - or $\check{s}i$ -), and none of them seem to be old. In the case of the retroflex sibilant \check{s} one can even find a parallel for the development: Komi and Udm šir 'mouse' appears to derive from earlier *šir, as it ultimately reflects PU *šiŋiri 'mouse' (Sammallahti 1988 : 550; UEW 500). The postulated sound change is also phonetically natural. Retroflex consonants feature an articulatory gesture in which the front part of the tongue is moved or bent back, the tip or blade of the tongue making contact with the area between the alveolar ridge and the hard palate, whereas the close front vowel [i] is articulated with the tongue positioned forward in the mouth. As a result, a vowel phoneme /i/ will almost inevitably have more or less backed allophones after retroflex consonants, and in languages with a phonological opposition between /i/ and /i/ a conditioned change i > j may easily take place in such an environment. Indeed, quite exact parallels for the change can be found: Western Mansi shows a change $*\check{s}i->\check{s}i-$ (Steinitz 1955 : 297—298), and in Russian, Belarusian and Polish there was an anologous change * $\check{s}i$ -, * $\check{z}i$ -> $\check{s}i$ -, $\check{z}i$ -; in these cases, too, the preceding sibilants are realized as retroflex.

2. Udm kil'a- 'be too wide (e.g., of shoes); be shaky (e.g., of table)' < PU *küljä 'wide, broad'

The Udmurt verb would regularly reflect PPerm (PS) $^*k\check{\it i}l'$ -al- / (MZh) $^*k\dot{\it u}l'$ -al-, but apparently, no Komi cognate can be found. The verb is obviously derived from a root $^*k\check{\it i}l'$ -/ $^*k\dot{\it u}l'$ - with the highly productive verbal derivational suffix * -al-.

3. Komi kurav-, kural- 'gather, collect, pick up; rake together', Udm kurja- 'scrape off, scrape clean' < PU *korja- 'gather'

Komi kurav- and Udm kurja- go back to PPerm (PS) * $k\bar{u}rj$ -al- / (MZh) *korj-al-. The loss of the glide *j in Komi is regular in this context: cf. Komi $n\bar{u}rav$ -, $n\bar{u}ral$ - \sim Udm $n\bar{u}rja$ - 'rub' and Komi $n\bar{u}rav$ - 'win (in a wrestling match)' \sim Udm $n\bar{u}rja$ - 'overcome, defeat'. The ending *-al- is a verbal derivational suffix which is very frequent and highly productive in the Permic languages.

UEW considers the Permic verb cognate with Ms KM <code>karśəl-</code> 'grope from water, stir water' and Hung <code>horol</code>, <code>hurul</code> 'rubs, whets, scratches', and reconstructs the proto-form <code>*korV-</code> / <code>*korwV-</code> (UEW 188). This etymology, however, fails to convince due to the irregular vowel correspondences. Moreover, the reconstruction postulated by UEW does not account for the glide <code>*-j-</code> in the Permic form. The dictionary also suggests Fi (Southwestern dialects) <code>karvia ~ karvita</code> 'scrape clean; cut off (the tops of turnips)' as an uncertain cognate. This, however, has been explained as a Swedish loanword (SSA s.v. <code>karvita</code>). Thus, there is no obstacle to comparing the Permic verb with Fi <code>korjata</code> 'gather, reap; repair' instead, as I have briefly suggested in an earlier publication (Aikio 2015 : 60); the actual arguments for this etymological proposal are now presented below.

Fi korjata (: korjaa-) reflects PFi *korja-da-, and has cognates in all Finnic languages. The primary meaning of the verb is 'gather, reap', in addition to which several secondary meanings are attested. In Finnish and Karelian the verb also means 'mend, repair, fix', and in Finnish dialects even meanings such as 'slaughter' and 'gut fish' are found. In the Votic cognate $k\tilde{o}rjata$ there was a semantic shift to 'hiding'; the path of semantic change may have been 'gather, reap' > 'stash, store, put in storage' > 'hide, put in a secret stash'. Livonian $kuo\gamma\tilde{\gamma}\tilde{o}$ has the additional sense 'pick up'. The word has no established etymology beyond Finnic (SSA s.v. korjata).

To the treatment of this word family by SSA one must add that also Fi koristaa 'decorate' is quite obviously derived from the same stem as korjata: it goes back to *korj-ista- and is thus the exact cognate of Est koristama 'clean up, tidy up', even though SSA mentions the latter only in connection with the verb korjata. The loss of *j is regular in the context r_i and l_i ; cf. e.g. Fi nurin 'inside out (ADV)' < * $nurjin \leftarrow nurja$ 'turned inside out; adverse'; Fi tarita: taritse- 'offer' (< *tarjicce-) $\sim tarjota: tarjoa$ - id.; Fi neli- 'four-' (compound form) < *nelji- $\leftarrow neljä$ 'four'; Fi väli 'space between something, gap' < * $v\ddot{a}lji \leftarrow v\ddot{a}lj\ddot{a}$ 'loose, slack'; Fi veli (< *velji): GEN veljen 'brother'. The semantic development of Est veli (< *velji): gather together; clean up'). The Finnish adjective veli 'decorated, adorned, embellished', in turn, appears to be a retrograde formation based on the verb veli veli (cf. SSA s.v. veli).

Phonologically the comparison of PPerm (PS) * $k \check{u}rj-al-$ / (MZh) *korjal-and PFi *korja-da- is quite transparent, and a Uralic proto-form *korja-can be reconstructed. The vowel development PU *o(-a) > PPerm (PS) * \check{u} / (MZh) *o is regular and has many parallels:

- PU *od'a 'wet, raw' > PPerm (PS) * $\breve{u}l'$ / (MZh) *ol' > Komi ul', Udm $\dot{l}l'$ (Aikio 2006 : 11—12)
- PU *ora 'squirrel' > PPerm (PS) *ŭr / (MZh) *or > Komi ur (UEW 343) PU *kočka 'eagle' > PPerm (PS) *kŭč / (MZh) *koč > Komi, Udm kuč (UEW 668)
- PU *kod'ka 'evil spirit' > PPerm (PS) * $k\breve{u}l'$ / (MZh) *kol' > Komi kul', Udm $k\ddot{\iota}l'$ (Aikio 2002 : 13—15)
- PU *kopa 'skin, hide' > PPerm (PS) * $k\breve{u}$ / (MZh) *ko > Komi, Udm ku (UEW 180)
- PU *śodka 'goldeneye' > PPerm (PS) *śŭlį / (MZh) *śolū > Komi śuv-, Udm -śulį (UEW 482)

- PU *śoma- 'get tired, languish' > PPerm (PS) *śŭm-al- / (MZh) *śom-al- > Komi śumav-, śumal-, Udm śuma- 'be hungry' (Luobbal Sámmol Sámmol Ánte 2014c : 88–89)
- PU *tolwa 'wedge' > PPerm (PS) *tŭl / (MZh) *tol > Komi tuv, tul, Udm tul (Aikio 2002 : 54)
- PU *worka- 'sew' > PPerm (PS) *vŭr- / (MZh) *vor- > Komi vur-, Udm vur-j- (UEW 584)
- PU *wosa 'trade, merchandise' > PPerm (PS) * $v\breve{u}z$ / (MZh) *voz > Komi vuz-, Udm vuz (UEW 585)

In Finnic and Permic the stem *korja- was augmented with different derivational suffixes. Semantically the comparison requires no special proof, as the meanings of the Finnic and Komi verbs are essentially the same. The meaning 'scrape off, scrape clean' in Udmurt is divergent, but can be explained as a development of the more specific meaning 'rake (together)' which is found in Komi dialects.

4. Komi ned-kel 'riddle', Udm nod 'cleverness, wit, quick-wittedness, perception'

 $< PU *n\ddot{a}ki-nt\ddot{a} \leftarrow *n\ddot{a}ki-$ 'see'1

The PPerm noun (PS) *nod / (MZh) *näd 'cleverness, wit' is reflected as Udm nod. The Komi cognate ned- is only attested in the compound ned- kil 'riddle', the head of which is the noun kil 'tongue, language, word, speech' (< PU *käli 'tongue'). The word has no established etymology so far, but it can be analyzed as an obscured derivative of the PU verb *näki- 'see', with widely attested reflexes: SaaN niegadit 'dream, have a dream', Fi $n\ddot{a}hd\ddot{a}$ ($n\ddot{a}ke$ -), MdM $n\ddot{a}ja$ - 'see', Kh Sur ni-, $n\ddot{u}$ - 'be visible', Ms So $ne\gamma l$ - 'appear, come in sight', Hung $n\acute{e}z$ 'look, watch'. Also a Permic reflex has been suggested: Udm naa-, naja- 'watch; taste; feel (with the hands)' (< PPerm (PS/MZh) *na-al-).

Proto-Permic * $n\dot{o}d$ /* $n\ddot{a}d$ can be morphologically analyzed as an obscured derivative formed with the deverbal noun suffix *-d (< PU *-ntA). Other examples of such obscured derivatives include the following:

Komi, Udm lid 'number, amount' < PPerm (PS) *lid-d / (MZh) *lid-d < PU *luki- 'count' (UEW 253)

Komi, Udm med 'pay, wage' < PPerm (PS) *mi-d / (MZh) *me-d < PU *mexi- 'give, sell' (UEW 275)

Udm tud-vu 'flood' < PPerm (PS) * $t\bar{u}$ -d / (MZh) *to-d + vu 'water'; cf. Komi tu- 'rise (of water)' (< PPerm (PS) * $t\bar{u}$ - / (MZh) *to-) (UEW 532)

Thus, PPerm *nöd suits structurally well as a derivative of PU *näki-. As regards its phonological development, PPerm (PS) * \dot{o} / (MZh) * \ddot{a} is a fully regular reflex of PU * \ddot{a} . Compare the following cases:

PU *äktä- 'cut' > PPerm (PS) *ökt- / (MZh) *äkt- > Komi *gkti-*, Udm okti- 'reap, gather' (Sammallahti 1988 : 23)

PU *jäsini 'joint' > PPerm (PS) *jöz / (MZh) *jäz > Komi jęz-vi, Udm joz-vi (UEW 95)

 $[\]overline{}$ This etymology has also been independently and contemporaneously discovered by Metsäranta (2020 : 137-138).

- PU *käski- 'command' > PPerm (PS) *kösj- / (MZh) *käsj- > Komi kesji-, Udm kosi- (UEW 653)
- PU * $k\ddot{a}udi$ 'rope' > PPerm (PS) * $k\dot{o}li$ / (MZh) * $k\ddot{a}lj$ > Komi $k\varrho v(j$ -), $k\varrho l(j$ -), Udm kal (Aikio 2006 : 19—20; cf. UEW 135)
- PU *lämä 'scab' > PPerm (PS) *lömi / (MZh) *lämj- > Komi lem(j-), Udm lom (UEW 686)
- PU * $p\ddot{a}l\ddot{a}$ 'side, half' > PPerm (PS) * $p\dot{o}l$ / (MZh) * $p\ddot{a}l$ > Komi pgv, pgl, Udm pal (UEW 362)
- PU *räppänä 'smoke hole' > PPerm (PS) *röp- / (MZh) *räp- > Komi repęd, Udm žopį (UEW 743)
- PU *tälwä 'winter' > PPerm (PS) *töl / (MZh) *täl > Komi tev, tel, Udm tol (UEW 516)

As regards consonant development, it is well-known that all intervocalic stops were regularly lost in Permic, and all clusters of a nasal and stop were denasalized and became single voiced stops. Hence, the phonological development can be assumed to have been approximately as follows: PU * $n\ddot{a}kint\ddot{a} > n\ddot{a}nd\vartheta > n\ddot{a}nd\vartheta > PPerm$ (PS) * $n\dot{\theta}d$ / (MZh) * $n\ddot{a}d$.

As regards semantics, it is quite straightforward to assume that a noun meaning 'sharpness, wit, quick-wittedness, perceptiveness' was derived from a verb meaning 'see'. For parallels we need to look no further than English wit, which is ultimately derived from Proto-Indo-European *weid- 'see' (cf. Latin $vid\bar{e}o$ 'I see', Old Church Slavonic $vid\breve{e}ti$ 'see', Old English witan 'know', etc.). Incidentally, the meaning of the Komi compound ned-kil 'riddle' comes quite close to that of German Witz 'joke', which is cognate with English wit; both refer to some kind of witty use of language. Of course, also other unrelated parallels can be found: cf., e.g., English insight ~ German Einsicht 'insight' \leftarrow English sight ~ German Sicht 'sight'; Latin $pr\bar{u}d\bar{e}ns$ 'wise, prudent' (< $pr\bar{o}vid\bar{e}ns$) $\leftarrow pr\bar{o}-vide\bar{o}$ 'foresee; be cautious; provide; care for'); Avestan $d\bar{a}\theta a$ - 'clever, intelligent' $\leftarrow d\bar{a}$ - 'see'.

One puzzle remains, namely how to account for the difference of vocalism in PPerm (PS) * $n\dot{o}d$ / (MZh) * $n\ddot{a}d$ 'cleverness, wit' and PPerm (PS/MZh) *na-al- 'watch, taste, feel'. There appears to be no obvious answer to this question. PPerm *a is very rare in vocabulary of Uralic origin, and in addition to Udm naa- there seem to be only a handful of plausible examples of the development PU * \ddot{a} > PPerm *a:

- PU *äjjä 'old man' > PPerm (PS) *ajį / (MZh) *aju > Komi aj, Udm ajį 'father, male' (UEW 609)
- PU * $l\ddot{a}pp\ddot{a}$ 'lid' > PPerm (PS/MZh) *lap > Komi $\acute{s}in$ -lap 'eyelid' ($\acute{s}in$ 'eye') (SSA s.v. $l\ddot{a}pp\ddot{a}^1$)
- PU * $p\ddot{a}$ ški 'nut' > PPerm (PS/MZh) *paš(k) > Udm paš-pu 'hazel' (UEW 726—727)
- PU * $t\ddot{a}$ (proximate demonstrative) > PPerm (PS/MZh) *ta > Komi, Udm ta 'this' (UEW 513—514)

These examples show no shared phonological features that could be interpreted as conditioning factors, so if the etymologies are correct in the first place, PPerm *a in these words is likely to be a result of irregular development. Sammallahti (1988 : 527) suggests that the development PU $*\ddot{a}$ > PPerm *a is restricted to PPerm monosyllabic vocalic stems, excluding nouns (cf. PU $*k\ddot{a}ti$ 'hand' > PPerm (PS) $*k\ddot{i}$ / (MZh) *ki > Komi, Udm ki).

This is an ad hoc formulation, which moreover does not even explain why the vowel in the demonstrative pronoun *ta 'this' would have developed quite differently from that in the noun (PS) *kĭ / (MZh) *ki 'hand'. Moreover, the rule does not account for the three other instances of PPerm *a listed above. Thus, it appears unlikely that the vowel development PU \ddot{a} > *a in PPerm *na-(al-) 'watch, taste, feel' could have been conditioned by the monosyllabicity of the root in Permic. Furthermore, it can be added that it is not even quite clear that the vowel *a should be reconstructed for the Proto-Permic form of the verb. Udm naa- is only attested in Besermyan dialects, where many words show a syncope of an original first-syllable vowel; Juho Pystynen (sansdomino [Pystynen] 2019) suggests that the phonologically aberrant form naa- could represent earlier *nia- or *nia-, to which a second verb-class marking morpheme -a- was added after the syncope of the original first-syllable vowel. Regardless of what the explanation of the vowel in Udm naa- is, it does not need to be assumed that the same vowel development would have affected Pre-Proto-Permic *nändə 'cleverness, wit' (< PU *näki-ntä), as the connection of this noun to its original derivational root may have become opaque at an early stage already.

5. Komi *pirig*, Udm *piri* 'crumb'; Udm *pirdi*- 'crumble' < PU **puri*- 'bite'

There is no generally accepted etymology for the cited Permic words for 'crumb'. UEW doubtingly compares these to Fi päre 'splint, shingle' (< PFi * $p\ddot{a}rek$), Kh V Vj Sur Irt $p\breve{e}r$ 'crumb; piece' (< PKh *pir) and Ms P $p\bar{\jmath}r$, VN LL $p\bar{\bar{y}}r$ 'piece, chunk, lump; piece of fabric' (< PMs * $p\bar{\bar{a}}r$) (UEW 366). However, the vowels of the Khanty and Mansi forms do not regularly correspond to each other, and neither of them matches the Finnic or the Permic forms. Moreover, Khanty $p\breve{e}r < *pir$ can be straightforwardly explained as a borrowing from PPerm (PS) *pyr-/ (MZh) *pir-'crumb'. The vowel substitution PPerm (PS) *i / (MZh) *i (> Komi i) > PKh *i is attested in numerous Permic borrowings (Toivonen 1956 : 138; Luobbal Sámmol Sámmol Ánte 2014b: 4-5). Whether also the Mansi word could be a loan from a Permic source is unclear; the vowels of the Mansi forms do not seem to support such an assumption. As regards the Finnish word, SSA (s.v. päre) rejects all comparisons between Fi päre and words outside the Finnic languages; on the other hand, the dictionary claims that Fi päre might originally be an onomatopoetic word connected with the verb päristä 'buzz', but from a semantic perspective this suggestion seems downright implausible.

The Proto-Permic form of the verb can be reconstucted as (PS) *pyr-/(MZh) *pur-, which could regularly reflect PU *pur(k)V-, *pür(k)V- and *pär(k)i-. The last option would bring the word close to Fi päre 'splint, shingle'. Nonetheless, the comparison appears unlikely, not least because a PU root *päri- would have regularly developed into *pēre- and not *päre- in Proto-Finnic (Luobbal Sámmol Sámmol Ánte 2012 : 233). Thus, there is a reason to compare the Permic words for 'crumb' to the PU verb *puri- 'bite' instead; this verb widespread and well-known reflexes, e.g. SaaN borrat 'eat; bite (of dogs, fish and insects)', Fi purra 'bite', MdE pore- 'chew, gnaw', MariE pura- 'chew', Komi pur-, Udm puri- 'bite (of animals)', Kh V Vj pŏr-, Ms So pur- 'bite', Mat hor- 'eat' (UEW 405).

The semantic connection between a noun meaning 'piece' or 'crumb' and a verb meaning 'bite' is rather straightforward. The verb *puri- has also a nominal derivative in Finnic with similar meanings: Fi puru 'powder, dust; food chewed for the baby', Vot puru 'crumb, splinter', Est puru 'mote, litter, powder, dust; broken', Liv $pur\bar{u}$ 'powder, dust' (< PFi *puru). A similar case is English bit, which also has the meaning 'small piece, morsel, fragment'; this is an obscured derivative of English bite.

As noted above, the reconstructed PU verb *puri- is considered to have another Permic reflex as well: Komi pur-, Udm purj- 'bite (of animals)' < PPerm (PS) *p $\bar{u}r$ - / (MZh) *por-. The vowel in this verb differs from that in Komi pirig, Udm pirig 'crumb'. However, this does not hinder the etymology proposed for the latter, because PPerm (PS) * \bar{i} / (MZh) * \bar{u} is the regular reflex of PU *u, whereas PPerm (PS) * \bar{u} / (MZh) *o is not. The vowel in the verb has perhaps not irregularly retained the rounding of PU *u; it could also have developed through irregular rerounding of the expected unrounded vowel \bar{i} due to the influence of the word-initial labial stop *p-. Another alternative would be to consider the verb a loan from another branch of Uralic (Mari?), but this hypothesis is not particularly attractive because verbs meaning 'bite' are not commonly borrowed. Whatever the case, the Permic words meaning 'crumb' can be etymologized as deverbal nouns derived from PU *puri- 'bite'.

6. Komi, KomiJ sot-, Udm suti- 'burn (TR)' < PU *se(w)-ptä- 'feed', a causative of *sewi- 'eat; burn'

The Permic verbs go back to PPerm (PS) *sot- / (MZh) *sɔt-, but they have no generally accepted etymology beyond Proto-Permic. Lytkin and Guljajev (КЭСК s.v. сотны) compare the verb to Fi syttyä 'catch fire, light up, start burning', the etymology originally deriving from Paasonen (1918 : 96). SSA (s.v. syttyä) regards Fi syttyä an automative passive derivative of the transitive verb *süttä-, which is attested in Votic süttää 'set on fire, ignite, light up'; the verb *süttä-, in turn, would also be a derivative formed from the consonant stem of PFi *süte- (> Fi dial. syteä ~ sytöä 'strike, hit, hack, poke'). Koivulehto (1999 : 223—224) accepts this morphological analysis, and derives PFi *süte- from earlier *sewče-, which according to him was borrowed from Early Proto-Iranian *ceuče- (> Avestan saočant- 'burning'; cognate with Sanskrit śōca-ti 'burns, shines').²

There are two problems in this etymology suggested for Fi *syttyä*. First, it is semantically odd to analyze **süttä*- 'set on fire' as a causative of **süte*- 'hit, strike, hack, poke'. While the meanings of 'striking' and 'setting on

² In this connection one can propose a new etymology for the Finnish verbs *sysiä* 'shove (repeatedly)' and *sysätä* 'shove (once)'. The verb *sysiä* could reflect PFi **süci*-< Pre-PFi **süt-i*- < **süte-j*-, and thus originally be a continuative-frequentative derivative of the verb **süte*- that underwent the regular phonological development **-ti*- > **-ci*- > *-si*-. This solution is especially attractive, as it allows one to establish a connection between Fi *sysiä* (< PFi **süci*-) and Olonetsian *sydie*, Ludic *śüd'ida*, Veps *süt'ta* (< PFi **süti*-); the latter verbs have the same meaning, but they display an analogically restored stop **-t*-. This explanation implies that the momentative derivative *sysätä* originated as a retrograde formation based on *sysiä* (cf. the Ludic momentative derivative *śüdäitä* with the expected stop -*d*- < **-t*-). Previous etymological references (SSA s.v. *sysätä*) have connected Fi *sysätä* and *sysiä* to Est (dial.) *süskama*, *suskama* 'sting, stick, poke' and Liv *siskõ* 'sting', but this etymology is implausible because it entails an ad hoc assumption of irregular loss of **-k*- in Finnish.

fire' are of course in themselves close to one another, it is not clear how the meaning 'set X on fire' would have developed from a causative meaning 'cause X to strike, make X strike'. This also creates a problem for the Iranian loan etymology: because the reflexes of PFi *süte- only mean 'hit, strike, hack, poke' and not 'set on fire', they are semantically poorly compatible with the Iranian verb meaning 'burn'. On the other hand, the comparison of PFi *süttä- and *süttü- to Iranian would involve no semantic problems, but the sound correspondence is not satisfying. The PFi geminate *tt can hardly reflect Iranian *č, and also the assumed vowel development *ew > PFi *ii would be irregular: cf. PU *lewli 'breath, vapor' > PFi *leülü > Fi löyly 'steam (in a sauna)'. Also Holopainen (2019 : 25—226) considers the loan etymology doubtful due to phonological and semantic problems.

Thus, there is reason to reconsider the alleged connection between PFi *süttü-'catch fire, light up' and PPerm (PS) *sot- / (MZh) *sɔt- 'burn (TR)'. Unlike the derivation of PFi *süttü- from PFi *süte- 'strike, hit, hack, poke', this comparison involves no semantic problems. The Permic form could be projected back to PU *settä-. The KomiJ form sot- also has the vowel o in the first syllable, which demonstrates that the Proto-Permic vowel was (PS) *o / (MZh) *o. This is the regular reflex of PU *o(—o); compare the following examples:

- PU * $el\ddot{a}$ 'live' > PPerm (PS) *ol- / (MZh) * $\dot{o}l$ > Komi, KomiJ ol-, Udm $ul\dot{i}$ (Sammallahti 1988 : 536; UEW 73)
- PU *ertä 'side' > PPerm (PS) *ord / (MZh) *ɔrd > Komi, KomiJ ord-lį 'rib', Udm urd 'side, rib' (Sammallahti 1988 : 552; UEW 625)
- PU *čečä 'uncle' > PPerm (PS) *čož / (MZh) *čɔž > Komi ćož, KomiJ čož, Udm čuž (Sammallahti 1988 : 536; UEW 34—35)
- PU * $kerj\ddot{a}$ 'ask for, beg' > PPerm (PS) *kor- / (MZh) * $k\dot{y}r$ > Komi, KomiJ kor-, Udm kurj- (UEW 149)
- PU *mertä 'man' > PPerm (PS) *mort / (MZh) *mɔrt > Komi, KomiJ mort, Udm murt (Sammallahti 1988 : 552; UEW 702)
- PU *pečä 'pine' > PPerm (PS) *požem / (MZh) *pɔžäm > Komi požem, KomiJ požom, Udm pužem (Sammallahti 1988 : 553; UEW 727)
- PU * $pes\ddot{a}$ 'nest' > PPerm (PS) *poz / (MZh) * $p\dot{\jmath}z$ > Komi, KomiJ poz 'nest', Udm puz 'egg' (Sammallahti 1988 : 539; UEW 375)
- PU *šeηkä 'narrow' > PPerm (PS) *šog / (MZh) *šɔg > Komi šog 'grief', Udm šug 'difficult' (see etymology 8)
- PU *terä 'edge, blade' > PPerm (PS) *dor / (MZh) *dɔr > Komi, KomiJ dor, Udm dur 'edge' (Luobbal Sámmol Sámmol Ánte 2014b : 12; cf. UEW 522, 795)

The first-syllable $*\ddot{u}$ in PFi $*s\ddot{u}tt\ddot{u}$ - needs to be accounted for, as PU *e was normally preserved unchanged in Finnic. The rounded vowel probably resulted from an assimilation to the automative passive suffix $*-\ddot{u}$ - in the second syllable: $*sett\ddot{a}-w->*sett\ddot{u}->*s\ddot{u}tt\ddot{u}$ -. The corresponding transitive verb $*s\ddot{u}tt\ddot{u}$ - could be a back formation of the automative passive $*s\ddot{u}tt\ddot{u}$ -, or alternatively, it could represent an original form $*sett\ddot{a}$ - whose vocalism was altered by analogy of the automative passive. The possibility of back formation is supported by the narrow distribution: the transitive verb $*s\ddot{u}tt\ddot{a}$ - is only attested in Votic and Ingrian.

The assumed phonological development *e — $\ddot{u} > ^*\ddot{u}$ — \ddot{u} appears to be completely regular in Finnic. There are extremely few words with the vowel

combination $^*e-\ddot{u}$ in the Finnic languages, which in itself suggests that the Pre-Proto-Finnic vowel combination $^*e-\ddot{u}$ has not been preserved unchanged in Finnic. In addition to Fi $sytty\ddot{a}$, two more examples of the development $^*e-\ddot{u}>^*\ddot{u}-\ddot{u}$ can be adduced; in both cases cognates in other branches of Uralic demonstrate that the vowel of the first syllable must be reconstructed as *e :

- Fi lyly 'compression wood' < *lelü < PU *leliw > MariE lile 'hard (of wood)', Komi dial. $l\bar{o}$ (< *lol), Kh V Vj $l\bar{e}l$, Sur $L\bar{e}L$, Irt $t\bar{e}t$ 'compression wood' (< PKh *lil). The Mari cognate is a new addition to this etymology.
- Fi *syntyä* 'be born' < **sentü* < PU **senti-w* > Komi *sod*-, KomiJ *su·d* 'increase, grow, multiply (INTR)' (< PPerm (PS) **sud* / (MZh) **sòd*-), ? Hung *üdül* 'refresh oneself, recover one's health; rest and relax, take a vacation', Ngan *tintud'i* 'revive, come back to life; awaken' (< PSam **tent-ö*-). The Hungarian and Nganasan cognates are new additions to this etymology.

The latter example is especially noteworthy, as it contains the same PU automative passive suffix *-w- as PFi *süttü-. The reconstructed PU verb *senti-w- is obviously an automative passive formed from an otherwise unattested root verb *senti-, which perhaps had the corresponding transitive meaning 'give birth', 'bring to life', or the like. Komi has preserved no trace of the suffix *-w-, but because both Fi syntyä and Ngan tintud'i clearly reflect the formation *senti-w- and Komi sod- shows a comparable intransitive meaning 'increase, grow, multiply', the latter is also likely to continue the automative passive form. Furthermore, it can be proposed that this derivative also underlies the hitherto unetymologized Hungarian verb üdül 'refresh oneself, recover one's health; rest and relax, take a vacation', even though synchronically the suffix -Ul is deadjectival rather than deverbal; note also the possibly related üdvözöl 'greets, salutes' and üdvöz (obsolete) 'greeted, saluted'. If the etymology is correct, the first-syllable vowel ü of the Hungarian forms must have arisen through a regressive assimilation similar to that in the Finnic forms.³

³ According to Koivulehto (1999: 222), the underlying root *senti- is also a derivative (*sen-ti-), and its root *sen(i)- was borrowed from early Proto-Iranian *gen- (> Young Avestan za(n)- 'give birth'; cognate with Sanskrit jánati 'I produce, give birth to', Greek $\gamma i \gamma \nu o \mu \alpha i$ 'I become, come into being', Latin $n\bar{a}tus$ 'born'). However, the discovery of a regular cognate in Nganasan implies that this verb is a true Proto-Uralic etymon, and this finding is in contradiction with the assumption of Iranian origin. In addition, the loan etymology also involves a morphological problem: there is no evidence within Uralic in support of a bimorphemic analysis of the root (*sen-ti-), and moreover, the identity of the postulated suffix *-ti- also remains unclear. There is a reflexive verb suffix of this shape, but the underlying stem *sentiwould not seem to have had a reflexive meaning. On the other hand, the alternative reconstruction *sen-tä- (with the causative suffix *-tA-) appears impossible in light of the vocalism of the Permic cognate: PU *sentä- would regularly yield KomiJ *sod- (< PPerm (PS) *sod- / (MZh) *s $\dot{\circ}$ d-), not the attested KomiJ $su\cdot d$ - (< PPerm (PS) *sud- / (MZh) *sod-). What is more, the loan etymology runs into phonological problems even on the Indo-European side: it is not clear that Proto-Indo-European *e would have been retained unchanged until Proto-Iranian, and that the change *e > *a would postdate Proto-Iranian; therefore, it is not clear that the alleged source form *zen- (instead of *zen-), with a depalatalized affricate *z, has actually existed. Considering all these difficulties combined, there is hardly an alternative to rejecting the Iranian loan etymology.

Against the hypothesis of a regular vowel change ${}^*e(-\ddot{u}) > {}^*\ddot{u}(-\ddot{u})$ one could adduce the fact that there nevertheless are rare cases of the vowel combination e^+ in Finnic. However, if we exclude transparent derivatives (such as Fin vettyä ~ Est vettima 'get soaked with water' < PFi *vettü- ← *veci : *vete- 'water'), there only seem to be two Finnic word-stems with this vowel combination which are of Uralic origin: Fin *venyä* ~ Est *venima* 'stretch (INTR)' (< PFi *venü-) and Fin löyly 'steam (in a sauna)', Est leil 'steam (in a sauna); spirit, life' (< PFi *leülü). The verb *venü- obviously contains the automative passive suffix *-U-, and it must have been derived from a lost primary stem *vene- that is implied by its external cognates (cf. SaaN vatnat 'stretch (INTR)' < PU *weni-, MdE veneme- 'stretch (INTR)' < PU *weni-mi-); this process of derivation could well have taken place after the vowel shift $e(-\ddot{u}) > \ddot{u}(-\ddot{u})$ in Pre-Proto-Finnic. Also PFi *leülü is probably derived from an underlying stem *leüle- < PU *lewli; this stem may be preserved in SaaN lievla 'vapor, steam', unless this is a Finnic loanword, and an original Uralic *i-stem is in any case suggested by the occurrence of a verb derived from the consonant stem in Khanty: cf Kh V Vj lil 'breath, soul, life' (< PU *lewli(-w)) : lält-'breathe' (< PU *lewl-tä-). This derived verb must be of considerable antiquity, as the original difference of the Uralic second-syllable vowels has triggered divergent development of the first-syllable vowel in Proto-Khanty.

As a vowel change $e(-\ddot{u}) > \ddot{u}(-\ddot{u})$ can be postulated for Pre-Proto-Finnic, also the vowel correspondence between PPerm (PS) *sot- / (MZh) *sɔt-'burn (TR)' and PFi *sütt-ü- 'catch fire, start burning' turns out to be regular. It can be concluded that the Permic verb directly reflects the PU verb stem from which the Finnic automative passive has been derived. This suggests the reconstruction of a PU verb *settä- 'burn / set on fire', but the etymological analysis can be taken yet a step further. Finnic -tt- and Permic -tregularly reflect both the PU geminate *-tt- and the PU consonant cluster *-pt-, and thus an alternative reconstruction * $sept\ddot{a}$ - can also be postulated. Thus, the Finnic and Permic verbs turn out to have a further cognate in Kh V läwət-, Vi jäwət-, Sur Lapət-, Irt tapət-, Ni tapət-, Kaz Lapət-, O lapət- 'feed; burn (TR)' (< PKh * $L\bar{a}p\partial t$ -). The Khanty verb goes back to PU *se(w)- $pt\ddot{a}$ -, a causative derivative of PU *sewi- 'eat'. Even though the primary meaning is of course 'make eat' = 'feed', there is no semantic obstacle as also the meaning 'burn (TR)' is found in Khanty. The semantic shift 'feed' > 'burn (TR)' is a natural development paralleled by the English expression feed the fire. Moreover, in the Uralic languages there are several independent examples of the metaphorical expression of 'burning' as 'eating, devouring':

- Kh V li-, Vj i-, Sur $li(\gamma^w)$ -, Irt Ni te(w)-, Kaz $L\varepsilon(w)$ -, Le(w)-, O li(w)'eat; burn (INTR)' (< PKh * $L\bar{e}\gamma$ -). This is the underived reflex of PU *sewi- 'eat'.
- SlkTa am- 'eat; burn (INTR)' < PSam * ∂m (cognate with NenT, Ngan $\eta \partial m$ -, Kam am- 'eat')
- SaaN buollit, Fi palaa, MdE palams 'burn (INTR)' < PU *pala- 'devour, eat up'; further cognates include Kh V Vj Sur $pul\underline{i}$ 'gobble', Ms KL KM So $p\overline{u}l$ 'eat, eat up, spoon', Hung fal 'devour, eat ravenously', NenT pal'e-, SlkTa $p\overline{o}l\underline{i}$ 'swallow' (Janhunen 1981 : 222; 2015; SSA s.v. palaa)

Lastly, one can add that the causative verb $*se(w)-pt\ddot{a}-$ has a reflex in Saami, too: SaaL siepptet 'set a bait' (< PSaa *seaptē-). This verb is appar-

ently only found in Lule Saami, but a corresponding noun is more widely attested: cf. SaaL sieppte, SaaN seakti, SaaI septi 'bait' (< PSaa * $seapt\bar{e}$). The semantic development is quite transparent, and there are at least two other examples of nouns meaning 'bait' derived from a causative verb meaning 'feed' in the Uralic languages: cf. Fin $sy\ddot{o}tti$ 'bait' $\leftarrow sy\ddot{o}tt\ddot{a}\ddot{a}$ 'feed' $\leftarrow sy\ddot{o}d\ddot{a}$ 'eat' (< PU *sewi-), and EnF $\check{c}i\delta i$, Ngan $\check{c}\ddot{u}t\ddot{u}$, SlkTa $t\ddot{u}t\dot{t}$ 'bait' (< PSam * $tit\ddot{u}$), which was apparently formed with the devebal noun suffix *-U from an unattested PSam causative verb * $tit\ddot{a}$ - 'feed' (< PU *sew(i)-(k) $t\ddot{a}$ -).

In Saami there are also further related forms which show a different first-syllable vowel: SaaL siepptat, SaaN siektat 'be lured, become attracted to; lose one's shyness, stop avoiding' (< PSaa *siepte-); SaaL sieptas, N sievttas, I sieptâs, Sk siõptâs 'bait' (< PSaa *sieptes). These must have been derived before metaphonic vowel changes caused by second-syllable vowels in Saami, which have produced synchronically opaque correspondences in some derivatives (cf., e.g., SaaN vuogga 'fishhook' : oaggut 'angle, fish with hook and line' < PSaa *vuonke : *oankō- < Pre-PSaa *onki : *onk-o-). However, there is a minor problem: we cannot simply project PSaa *sieptg- and *sieptgs back to the quasi-PU forms *se(w)pti- and $*se(w)pti\check{s}$, because the regular vowel development is PU *e-i > Pre-PSaa *i-i > PSaa *e-e. The reason why these derivatives contain the PSaa vowel *ie instead of *e must be that they were formed at a time when only some (but not all) of metaphonic vowel changes had taken place. After the changes PU *e-i > Pre-PSaa *i-iand PU $\ddot{a}-i > \text{Pre-PSaa } e-i \text{ had occurred}$, the language had a phoneme */e/ with different Uralic sources in *i-stems and *ä-stems. At this particular stage the derivational process * $sept\ddot{a}(-) \rightarrow *septi-$, * $septi\dot{s}$ would have produced forms that regularly yield the attested Saami forms.

It should be noted that previously also other etymologies have been proposed for PSaa *seaptē 'bait'. The word has been considered cognate with Fin *sättä* 'angleworm' (SSA s.v. *sättä*), but the latter is a dialectal word with a very limited distribution, and thus evidently a loan from Saami (Aikio 2009: 162–163, 363); to previous arguments one can add that Fin sättä could not even theoretically go back to a common Finno-Saamic protoform * $s\ddot{a}pt\ddot{a}$, because PU * \ddot{a} — \ddot{a} regularly changed to Pre-PFi *a—e (Zhivlov 2014: 114-115; Aikio 2015: 39-44). On the other hand, Koivulehto has suggested that PSaa *seaptē goes back to Pre-PSaa *šeptä and was borrowed from Proto-Baltic * $\check{z}\bar{e}p$ -ta- (* $\check{z}\bar{e}b$ -ta-), a verbal adjective based on the verb * $\check{z}\bar{e}b$ - > Lithuanian $\check{z}\check{e}bti$ 'eat slowly and reluctantly, nibble'; the etymology is included in a presentation handout (Koivulehto 1996), but it was apparently never published. I had myself earlier considered the etymology plausible (Aikio 2009: 163), but it should be rejected because no such Baltic form is actually attested that would semantically and phonologically suit as the loan original.

7. Komi šog 'grief, sorrow, sadness', Udm šug 'difficult, hard; (dial.) narrow, uncomfortable'

< PU *šeŋkä

The Permic words reflect PPerm (PS) * $\check{s}og$ / (MZh) * $\check{s}jg$; the vowel *o/* \check{s} is implied by the KomiJ derivative * $\check{s}o\cdot gal$ - 'be sick' and the Komi Upper Sysola dialect forms * $\check{s}og$ and * $\check{s}ogal$ -. UEW considers an etymological connection to

Hungarian $agg\acute{o}dik$ 'worry, be anxious' possible (UEW 501), but this proposal must be rejected: because PPerm (PS) *o / (MZh) * \dot{o} reflects PU *e($-\ddot{a}$) (see etymology 6), the Permic words presuppose the front-vocalic PU form * $\check{s}e\eta k\ddot{a}$. What is more, in Saami there is an adjective that suits phonologically perfectly as a reflex of this form: SaaN seaggi 'narrow (of long objects); thin (of round objects and snow)' (< PSaa * $sea\eta k\bar{e}$), with cognates in all Saami languages.

Although most meanings of the Permic forms differ much from that of the Saami adjective, the comparison is unproblematic: also the meaning 'narrow, uncomfortable' is dialectally attested in Udmurt. Moreover, the semantic relationship is supported by many parallels. An obvious example is German Angst 'fear, anxiety', Old High German angust, Old Frisian ongost 'fear' (< Proto-Germanic *angusti-) and Latin angor 'suffocation; anxiety', anxius 'worried', angustia 'narrowness; narrow place, gorge; difficult or awkward situation', which are derivatives formed from Proto-Indo-European *h₂amg^hu- 'narrow' (> Sanskrit aṃhú-, Old High German angi, engi 'narrow'); remotely related are also Fi ahdistaa 'make anxious' and ahdistus 'anxiety' \leftarrow ahdas 'narrow, cramped' (a loan from Proto-Baltic *an(k)štas > Lithuanian $a\tilde{n}k$ štas 'narrow', which is also derived from a reflex of Proto-Indo-European *h,amghu-). Other examples of similar semantic shifts include Icelandic *bröngur*, Swedish *trång*, Norwegian and Danish trang 'narrow; difficult'; Karaim tar 'narrow, tight; misery, trouble, unjustice'; Lezgian dar 'narrow, tight; difficult'; Ancient Hebrew sar- 'be tight; be in low circumstances, be worried, be sad' (DatSemShift 2.0).

8. Komi *tįš* (*tįšk*-) 'battle, fight', Udm *tįš* 'bloody battle' < PU **tukš*V 'battle, fight; hit (?)'

The Komi and Udmurt nouns reflect PPerm (PS) t_{ij}^* / (MZh) t_{ij}^* /battle, fight'. The stem is also attested as a verb: Komi, Udm t_{ij}^* /hit, strike dead'. No etymology has been proposed for the words.

PPerm (PS) *½ / (MZh) *û can reflect PU *u or *ü. The cluster *šk can either be original or have been metathesized from PU *kš. Thus, the Permic items can be derived from PU *tukšV-, which warrants a comparison to Fi tuho 'destruction, ruin' and its derivative tuhota 'destroy'. The development *kš > Fi h is regular: cf. Fi mehiläinen 'bee' < PU *mekši (> PPerm (PS) *müšk / (MZh) *möšk > Komi moš, Udm muš 'bee') (Sammallahti 1988 : 545; UEW 271), Fi ohut 'thin' < PU *wokši (Решетников 2011). In morphological terms, the Permic verbal stem may represent the primary underived form. Perhaps one can reconstruct a verb *tukša-v (> Komi Udm tįškį-), from which a deverbal noun *tukš-o / ?*tukša-w (> Fi tuho, Komi Udm tįš(k-)) was derived.

Semantically the comparison is quite straightforward, although there are several possible reconstructions of the original meaning. One option is to start from 'battle, fight' and assume that the rather straightforward semantic shift 'battle' > 'destruction, ruin' took place in Finnic. However, if the Permic verb represents the primary underived form, then the primary meaning has probably been 'hit, strike' or the like, and the sense of 'battle' is an innovation; as for the semantic connection of 'battle' and 'hitting', cf. Russian outba and ooü 'battle' $\leftarrow \textit{outb}$ 'beat'; German Schlacht 'battle' < Old High

 $[\]overline{^4}$ The same Uralic etymology for Fi *ohut* has also been presented by me (Luobbal Sámmol Sámmol Ánte 2014b : 10-11); at the time of publication I was regrettably unaware that Reshetnikov (Решетников 2011) had already discovered and published the etymology.

German slahta 'slaughter, killing' $\leftarrow slahan$ 'hit, beat' (> German schlagen); Engl battle < Old French bataille 'battle, single combat', ultimately derived from Latin $battu\bar{o}$ 'I beat, fight'. In this case, the meaning of Fin tuho 'destruction, ruin' could instead derive from an underlying verbal sense of 'smashing, striking apart'. Yet a third possibility is suggested by Veps tuho 'blizzard, winter storm': if this word is indeed cognate, then one could postulate a development 'storm' > 'battle' for Permic, and 'storm' > 'destruction, ruin' for Finnic. This hypothesis remains very uncertain, however, because elsewhere in northern Finnic this weather term is clearly distinct from tuho 'destruction, ruin': cf. Fi (dial.) tuhu 'drizzle', Kar tuhu 'blizzard; storm; heavy rain shower', Ludic tuhu 'blizzard, snow storm'. Thus, the word *tuhu '(winter) storm' is probably etymologically distinct from *tuho 'destruction, ruin' after all, and Veps may have merged the two words into tuho by folk etymology.

9. Komi ung 'quiet, gentle person; quiet, gentle; cunning' < PU *ma' 'tame'

Komi $u\acute{n}e$ (< PPerm (PS) * $\check{u}\acute{n}e$ / (MZh) * $u\acute{n}e$) can be connected with the following well-established Uralic cognate set: SaaL vuodnje 'tame, not shy (of birds)', Kh Sur $\mathring{a}\acute{n}i$ 'not shy, allowing one to come into shooting range (of birds)', NenT ηij^{\flat} 'tame', SlkTa $\mathring{m}i$ 'quiet, calm' (< PU * $\mathring{i}\acute{n}a$) (UEW 340; Sammallahti 1988 : 536). The comparison is phonologically completely regular and the semantic connection is transparent: one can assume the semantic shift 'tame' > 'calm' > 'quiet, gentle', which is also attested in the Taz Selkup cognate. As further parallels one can mention Olonetsian $ke\check{z}i$ 'tame; calm and gentle (of a person); shy'; SaaN lodji 'tame; calm (of a person)' ~ SaaS lujjies 'quiet, shy, modest; mild (of weather)'; NenT $j\not{a}na$ 'quiet, calm, meek (of persons and animals); slow, careful' ~ EnF d'ona 'tame; quiet'. The ending -e in the Komi word must be a suffix.

10. Komi *uź-*, Udm *iźi-* 'sleep' < PU **iśi-w-* 'camp'

The original Uralic verb meaning 'sleep' was apparently $*a\delta i$ -; this verb can be reconstructed on the basis of Saami (SaaN oaddit), Mordvin (MdE udoms), Khanty (Kh V Vi ăla-), Mansi (obsolete, 18th century «ололанты», «алалахь»), and Hungarian (alszik) (Sammallahti 1988 : 542; UEW 334; regarding the phonological reconstruction see Aikio 2015). This verb was not preserved in Permic, though, where the verb with the same meaning is Komi $u\acute{z}$ -, Udm $i\acute{z}\acute{i}$ -, (dial.) $i\acute{z}\acute{i}$ -. The Komi verb also has the meaning 'stay overnight'. The PPerm form was (PS) * $\check{u}\acute{z}$ - / (MZh) * $o\acute{z}$ -; the Udmurt vowel is the result of illabialization u > i in Proto-Udmurt, a change which is not completely regular but nevertheless attested in numerous words, especially before palatalized consonants (cf. Лыткин 1964 : 215-216). In many dialects there was a further change i > i due to the influence of the following palatalized consonant \acute{z} (Kel'makov, Saarinen 1994 : 44–45). The origin of this Permic verb has not been explored in detail, but the etymology discussed below has been implied in Aikio (2012: 241), where the Permic verb is cited as the cognate of Fi asua 'live (somewhere), dwell'.

Because the Permic verb would regularly reflect either PU *iśV-, *ośaor *aśV-, the reconstructed PU verb *įśi-w- 'camp' provides an evident point of comparison. This reconstruction is based on two geographically peripheral branches, Finnic and Samoyed: Fi asua 'live (somewhere), dwell' (< PFi *asu-), NenT ηeso- and EnT usu- 'camp' (< PSam *eso-). This equation is considered certain by UEW (pp. 18-19), but highly uncertain by SSA (s.v. asea). There is no reason for uncertainty, however, as the sound correspondence between PFi *asu- and PSam *gso- is fully regular, and the semantic correspondence 'dwell' ~ 'camp' is quite transparent. Despite this, the validity of the etymology has recently been denied by Janhunen (2020: 136), who points out that NenT ηeso - 'camp' is in irregular correspondence to Slk Ta esi-, Ty eza-, K essu- 'become' (< Proto-Selkup *esu-). While this is true, the irregular front vowel *e and the very different meaning of the Selkup verb merely imply that it must be of another origin, and the issue ought to have no bearing on the comparison of the Finnic and the Northern Samoved forms.

The PU verb *įśi-w- can be morphologically analyzed an automative passive of *įśi-. The underived root is attested in Old Finnish asea 'put, set'. The primary e-stem is also attested in Finnish derivatives such as asettaa 'set', asema 'position' and asento 'posture'. Thus, the original sense of the derivative *įśi-w- has probably been 'set oneself, be set', from which the meaning 'stop a journey, camp' developed already in Proto-Uralic. In Finnic a further semantic shift 'camp' > 'settle' > 'dwell' took place. There is at least one relic of the former meaning: the derivative asento, which in standard Finnish means 'posture', has in the Far Northern dialects also the meaning 'campsite'. It is also noteworthy that SaaN ássat, a loanword from Finnic asua, has both the meaning 'live (somewhere), dwell' as well as 'settle (to live somewhere), settle down', and the latter is one step closer to the meaning 'camp' in Samoyed. As regards the Permic words, their inclusion in this etymology implies a semantic development 'camp' > 'stay overnight' > 'sleep'. Notably, the intermediate meaning 'stay overnight' is also attested in Komi.

Address

Luobbal Sámmol Sámmol Ánte (Ante Aikio) Sámi University of Applied Sciences E-mail: antea@samas.no

Abbreviations

EnF — Forest Enets; Fi — Finnish; Hung — Hungarian; Kh — Khanty (V — Vakh; Vj — Vasjugan; Sur — Surgut; Irt — Irtysh; Ni — Nizyam; Kaz — Kazym; O — Obdorsk); MariE — East Mari; MariW — West Mari; Mat — Mator; MdE — Erzya Mordvin; MdM — Moksha Mordvin; Ms — Mansi (T — Tavda; KL — Lower Konda; KM — Mid Konda; KU — Upper Konda; P — Pelymka; VN — North Vagilsk; VS — South Vagilsk; LL — Lower Lozva; LU — Upper Lozva; So — Sosva); NenF — Forest Nenets; NenT — Tundra Nenets; Ngan — Nganasan; PFi — Proto-Finnic; PKh — Proto-Khanty; PMd — Proto-Mordvin; PMs — Proto-Mansi; PSaa — Proto-Saami; PSam — Proto-Samoyed; PU — Proto-Uralic; SaaI — Inari Saami; SaaK — Kildin Saami; SaaL — Lule Saami; SaaN — North Saami; SaaS — South Saami; SaaSk — Skolt Saami; SaaT — Ter Saami; SlkK — Ket Selkup; SlkTa — Taz Selkup; Udm — Udmurt.

SOURCES OF LEXICAL DATA

- A l a t a l o, J. 2004, Sölkupisches Wörterbuch aus Aufzeichnungen von Kai Donner, U. T. Sirelius und Jarmo Alatalo, Helsinki (LSFU XXX).
- Beke, Ö. 1997–2001, Mari nyelvjárási szótár (Tscheremissisches Dialektwörterbuch) I—IX, Szombathely (Bibliotheca Ceremissica. Tomus IV).
- Benkő, L. 1992–1997, Etymologisches Wörterbuch des Ungarischen, Budapest. Bergsland, K., Mattsson Magga, L. 1993, Åarjelsaemien-daaroen baakoegærja – Sydsamisk-norsk ordbok, [Lakselv].
- Fokós-Fuchs, D. Ř. 1959, Syrjänisches Wörterbuch, Budapest.
- Grundström, H. 1946–1954, Lulelapsk ordbok, Uppsala (Skrifter utgivna genom dialekt- och folkminnesarkivet i Uppsala. Serie C:1).
- H. Paasonens Mordwinisches Wörterbuch. Zusammengestellt von Kaino Heikkilä. Bearbeitet und herausgegeben von Martti Kahla, Helsinki 1990–1999 (LSFU XXIII. Kotimaisten kielten tutkimuskeskuksen julkaisuja 59).
- Helimski, E. 1997, Die matorische Sprache. Wörterverzeichnis, Grundzüge der Grammatik, Sprachgeschichte. Unter Mitarbeit von Beáta Nagy, Szeged (Studia Uralo-Altaica 41).
- Herrala, E., Feoktistov, A. 1998, Mokšalais-suomalainen sanakirja, Turku (Turun yliopiston suomalaisen ja yleisen kielitieteen laitoksen julkaisuja 58).
- I t k o n e n, E. 1986—1991, Inarilappisches Wörterbuch, Helsinki (LSFU XX). I t k o n e n, T. I. 1958, Koltan- ja kuolanlapin sanakirja, Helsinki (LSFU XV).
- Kai Donners Kamassisches Wörterbuch nebst Sprachproben und Hauptzügen der Grammatik. Bearbetet und herausgegeben von A. J. Joki, Helsinki 1944 (LSFU VIII).
- Lehtisalo, T. 1956, Juraksamojedisches Wörterbuch, Helsinki (LSFU XIII).
- Maksimov, S., Danilov, V., Saarinen, S. 2008, Udmurttilais-suomalainen sanakirja, Turku (Turun yliopiston suomalaisen ja yleisen kielitieteen laitoksen julkaisuja 79).
- Mikola, T. 1985, Morphologisches Wörterbuch des Enzischen, Szeged (Studia Uralo-Altaica 36).
- Moisio, A., Saarinen, S. 2008, Tscheremissisches Wörterbuch, Helsinki (LSFU 32).
- Niemi, J., Mosin, M. 1995, Ersäläis-suomalainen sanakirja, Turku (Turun yliopiston suomalaisen ja yleisen kielitieteen laitoksen julkaisuja 48).
- Országh, L., Magay, T. 2006, Angol-magyar nagyszótár, Budapest.
- Sammallahti, P. 1989, Sámi-suoma sátnegirji Saamelais-suomalainen sanakirja, Ohcejohka.
- Sammallahti, P., Morottaja, M. 1993, Säämi-suomâsänikirje Inarinsaamelais-suomalainen sanakirja, Ohcejohka.
- Steinitz, W. 1966–1993, Dialektologisches und etymologisches Wörterbuch der ostjakischen Sprache 1—15, Berlin (= DEWOS). Suomen sanojen alkuperä. Etymologinen sanakirja 1—3, Helsinki 1992—2000 (SKST
- 556; Kotimaisten kielten tutkimuskeskuksen julkaisuja 62) (= SSA).
- U o t i l a, T. E. 1942, Syrjänischer Wortschatz nebst Hauptzügen der Formenlehre. Aufgezeichnet von Yrjö Wichmann, Helsinki (LSFU VII).
- Wogulisches Wörterbuch. Gesammelt und geordnet von Artturi Kannisto. Bearbeitet von Vuokko Eiras. Herausgegeben von Arto Moisio, Helsinki 2013.
- Wotjakischer Wortschatz. Aufgezeichnet von Yrjö Wichmann. Bearbeitet von T. E. Uotila & Mikko Korhonen. Herausgegeben von Mikko Korhonen, Helsinki 1987 (LSFU 21).
- Быконя В. В. 2005, Селькупско-русский диалектный словарь, Томск. Костеркин Н. Т., Момде А. Ч., Жданова Т. Ю. 2001, Нганасанско-русский и русско-нганасанский словарь, Санкт-Петербург.
- Сорокина И. П., Болина Д. С. 2001, Энецко-русский и русско-энецкий словарь, Санкт-Петербург.
- Терещенко Н. М. 1965, Ненецко-русский словарь, Москва.
- X елимский Е. 2007 [unpublished manuscript], Северноселькупский словарь.

REFERENCES

- Aikio, A. 2002, New and Old Samoyed Etymologies. FUF 57, 9–57.
- 2006, New and Old Samoyed Etymologies (Part 2). FUF 59, 5-34.
- 2009, The Saami Loanwords in Finnish and Karelian [unpublished PhD dissertation, University of Oulu].
- 2015, The Finnic 'secondary e-stems' and Proto-Uralic Vocalism. JSFOu 95, 25-66.
- Bereczki, G. 1994, Grundzüge der tscheremissischen Sprachgeschichte I, Szeged (Studia Uralo-Altaica 35).
- C s ú c s, S. 2005, Die Rekonstruktion der permischen Grundsprache, Budapest. DatSemShift 2.0. Database of Semantic Shifts in Languages of the World. http:// datsemshift.ru.
- Harms, R. 1967, Split, Shift and Merger in the Permic Vowels. UAJb. 39, 163 - 198.
- Holopainen, S. 2019, Indo-Iranian Borrowings in Uralic. Critical Overview of the Sound Substitutions and Distribution Criterion. Doctoral Dissertation, Helsinki. https://helda.helsinki.fi/handle/10138/307582.
- I t k o n e n, E. 1956, Zur Geschichte des Vokalismus der ersten Silbe im Tscheremissischen und in den permischen Sprachen. – FUF 31, 145-345.
- Janhunen, J. 1981, Uralilaisen kantakielen sanastosta. JSFOu 77, 219–274.
- 2015, Etymology and the Role of Intuition in Historical Linguistics. Studia Etymologica Cracoviensia 20, 9—15.
- 2020, Issues of Comparative Uralic and Altaic Studies (6). Uralic Copulas and Their Analogues in Other Eurasian Languages. — Емас сымын нэкве вортур этпост самын патум. Scripta miscellanea in honorem Ulla-Maija Forsberg, Helsinki (MSFOu 275), 129-140.
- Keľmakov, V. K., Saarinen, S. 1994, Udmurtin murteet, Turku (Turun yliopiston suomalaisen ja yleisen kielitieteen laitoksen julkaisuja 47).
- Koivulehto, J. 1996, Fragen der Sprachkontakte. Das Verhältnis des Ostseefinnischen und des Lappischen im Lichte der alten Lehnwörter - Datierung der germanisch-ostseefinnischen Lehnbeziehungen [Unpublished. A handout delivered at the sypmosium "Sprachen in Finnland und Estland", Universität Greifswald, November 7.—9., 1996.)
- 1999, Varhaiset indoeurooppalaiskontaktit: aika ja paikka lainasanojen valossa. – Pohjan poluilla. Suomalaisten juuret nykytutkimuksen mukaan, Helsinki (Bidrag till kännedom av Finlands natur och folk 153), 207–236.
- Luobbal Sám mol Sám mol Ánte (Aikio, A.) 2012, On Finnic Long Vowels, Samoyed Vowel Sequences, and Proto-Uralic *x. - Per Urales ad Orientem: Iter polyphonicum multilingue. Festskrift tillägnad Juha Janhunen på hans sextioårsdag den 12 februari 2012, Helsinki (MSFOu 264), 227-250.
- 2013, Studies in Uralic Etymology I: Saami Etymologies. LU XLIX, 161—
- 2014a, On the Reconstruction of Proto-Mari Vocalism. Journal of Language Relationship / Вопросы языкового родства 11, 125—157.
- 2014b, Studies in Úralic Etymology ÎI: Finnic Etymologies. LU L, 1—19. 2014c, Studies in Uralic Etymology III: Mari Etymologies. — LU L, 81—93.
- M e t s ä r a n t a, N. 2020, Periytyminen ja lainautuminen. Marin ja permiläisten kielten sanastontutkimusta, Helsinki [Akateeminen väitöskirja] https://helda.helsinki. fi/handle/10138/321695.
- P a a s o n e n, H. 1918, Die finnisch-ugrischen s-laute, Helsingfors (MSFOu XLI). S a m m allahti, P. 1988, Historical Phonology of the Uralic Languages with Special Reference to Samoyed, Ugric and Permic. — The Uralic Languages. Description, History and Foreign Influences, Leiden-New York -København-Köln, 478-554.
- sansdomino [P y s t y n e n, J.] 2019, Native Initial Clusters in Udmurt. https://protouralic.wordpress.com/2019/11/24/native-initial-clusters-in-udmurt/.
- Steinitz, W. 1955, Geschichte des wogulischen Vokalismus, Berlin. Toivonen Y. H. 1956, Über die syrjänischen Lehnwörter im Ostjakischen. FUF XXXII, 1−169.

Z h i v l o v, M. 2014, Studies in Uralic Vocalism III. — Journal of Language Relationship / Вопросы языкового родства 12, 113—148.

Лыткин В. И. 1964, Исторический вокализм пермских языков, Москва. Решетников, К. Ю. 2011, Новые этимологии для прибалтииско-финских слов. — Ural-Altaic Studies. Урало-алтайские исследования 2 (5) 2011, 109—112.

ЛУОББАЛ САММОЛ САММОЛ АНТЕ (АНТЕ АЙКИО) (Каутокейно)

ИССЛЕДОВАНИЯ УРАЛЬСКИХ ЭТИМОЛОГИЙ V. ПЕРМСКИЕ ЭТИМОЛОГИИ

This paper is the fifth part in a series of studies that present additions to the corpus of etymological comparisons between the Uralic languages, drawing data from all the major branches of the language family. It includes both previously unnoticed cognates that can be added to already established Uralic cognate sets, as well as a few completely new reconstructions of Uralic word roots. In this fifth part new Uralic etymologies for ten Permic (Komi and Udmurt) words are discussed. The etymologized words are: Udm čįž 'rosy, ruddy' (< PU *čijči); Udm kįl'a- 'be too wide; be shaky' (< PU *kūljä); Komi kurav- 'gather', Udm kurja- 'scrape' (< PU *korja-); Komi ngd-kįl 'riddle', Udm nod 'cleverness' (< PU *näki-ntä); Komi pįrig, Udm pįrį 'crumb' (< PU *puri-); Komi sot-, Udm sutį- 'burn' (< PU *se(w)-ptä-); Komi šog 'grief', Udm šug 'difficult' (< PU *šenkä); Komi and Udm tįš 'battle' (< PU *tukšV); Komi uńg 'quiet, gentle person; quiet, gentle; cunning' (< PU *jńa); Komi uź-, Udm iźį- 'sleep' (< PU *įśi-w-).

LUOBBAL SÁMMOL SÁMMOL ÁNTE (ANTE AIKIO) (Guovdageaidnu / Kautokeino)

UURALI ETÜMOLOOGIAID V: PERMI ETÜYMOLOOGIAID

This paper is the fifth part in a series of studies that present additions to the corpus of etymological comparisons between the Uralic languages, drawing data from all the major branches of the language family. It includes both previously unnoticed cognates that can be added to already established Uralic cognate sets, as well as a few completely new reconstructions of Uralic word roots. In this fifth part new Uralic etymologies for ten Permic (Komi and Udmurt) words are discussed. The etymologized words are: Udm čįž 'rosy, ruddy' (< PU *čijči); Udm kįl'a- 'be too wide; be shaky' (< PU *kūljä); Komi kurav- 'gather', Udm kurja- 'scrape' (< PU *korja-); Komi ngd-kįl 'riddle', Udm nod 'cleverness' (< PU *nāki-ntā); Komi pṛrig, Udm pṛrig 'crumb' (< PU *puri-); Komi sot-, Udm sutį- 'burn' (< PU *se(w)-ptā-); Komi šog 'grief', Udm šug 'difficult' (< PU *šenkā); Komi and Udm tįš 'battle' (< PU *tukšV); Komi uńg 'quiet, gentle person; quiet, gentle; cunning' (< PU *jńa); Komi uź-, Udm iźj- 'sleep' (< PU *įśi-w-).

2* 179