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Transeurasian basic verbs: copy or cognate?

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1. Introduction

The present contribution is concerned with sets of basic verbs shared between the Transeurasian languages and their historical motivation. The label "Transeurasian" was coined by Johanson & Robbeets (2010: 1-2) with reference to a large group of geographically adjacent languages, traditionally known as "Altaic", that share a significant number of linguistic properties and include up to five different linguistic families: Japonic, Koreanic, Tungusic, Mongolic, and Turkic. The question whether all similarities between the Transeurasian languages should be accounted for by code-copying or whether some are cognate residue of a common ancestor is one of the most debated issues of historical comparative linguistics (see Robbeets 2005 for an overview of the debate).

Many scholars would agree that it is meaningful to apply the concept of "linguistic area" to the Transeurasian languages in the sense of a geographical concentration of linguistic features, that is at least partly motivated by language contact. Recent decades have witnessed an increase of interest in studies on structural convergence in the vast Transeurasian area such as Poppe 1964, Shibata 1979, Hattori 1980, Fabre 1982, Hayashi 1985, van der Hulst & Smith 1988, Rickmeyer 1989, Johanson 1992, 1996, 2002, Schönig 1994, Bisang 1998, Janhunen 2007 and Robbeets (forthcoming).

But, can we also apply the concept of "language family" to the Transeurasian languages? Can we find similarities between Japonic, Koreanic, Tungusic, Mongolic, and Turkic languages that are more likely to be due to common ancestorhood than to code-copying? This is the question that underlies the present paper.

As a short-cut to the answer, I will concentrate on etymologies for verbs belonging to the basic vocabulary. As far as the basic vocabulary is concerned, I use the Leipzig-Jakarta list (Tadmor et al. 2010) because it includes more verbs than the traditional Swadesh 100 list (Swadesh 1955). My focus is on verbs because they enjoy a higher stability than nouns or nominal adjectives.

In the following section, I will list etymologies for basic verbs shared across the Transeurasian languages. In the third section, I will argue why common ancestorhood can provide a more sensible account for these etymologies than code-copying. Finally, I will summarize my findings in a conclusion.

2. Etymologies for basic verbs

If we restrict the evidence to etymologies for verbs and verbal adjectives that have members in at least three different branches of the Transeurasian unity, we find the following 13 items on the Leipzig-Jakarta 100 wordlist. The etymologies represent basic vocabulary in the sense that the basic meaning can be reconstructed to the common proto-Transeurasian form. Table 1 summarizes the etymologies, indicating the number of the relevant sound correspondences on the basis of the lists in the Tables 2 and 3 below as well as the passages in my previous work that deal with them in more detail.¹

3. TO GO

pJ *na- ‘to go out, become’: OJ *in-* (A) ‘to go away, leave, depart’, OJ *-in-* perfective auxiliary, J *nar-* (B), OJ *nar-* ‘to become, come into being’, J *nas-* (B), OJ *nas-* ‘to make, do, give birth to’

pK *na- ‘to go out’: K *na-*, MK ·*na-* ‘to go out, emerge, leave, become, come into being, come out’, MK “*nay-* ‘to take out, produce’ (*-i- causative), MK *nat-* ‘to appear’ (*-t(i)- passive), MK -·*na-* resultative

pTg *na:- ‘to go out’: Evk., Even. -*na*:-, Sol. -*na*:-, Neg. -*na*-, Na. -*nda*-, Olch. -*ŋda*, Orok, Orok, Ud. -*na*-, Sibe -*na*-, Ma. -*na*- ~ -*ne*- ~ -*no*- ‘to go out (to verb)’

25. TO DO/MAKE

pJ *-ka- ‘to produce a sound or a sensation like the base onomatopoea’: J, OJ *-k-*, pR

¹ Note that Old Japanese distinguished between two values for later *e*, *i*, *o* in certain syllables, which are indexed with subscripts *i*₁ versus *i*₂, *e*₁ versus *e*₂ and *o*₁ versus *o*₂. Japanese verbs are distinguished according to two prosodic classes A and B. Type A corresponds to a high initial tone, type B to a low initial tone. For Middle Korean, Yale Romanization is modified to allow for the representation of unrounded vowels [ʌ] and [i] by *o* and *u*. In proto-Korean these vowels are reconstructed as **ʌ* and **i*.

*-k-, e.g. in pJ *na 'crying sound' in OJ *ne* (1.1) 'sound, crying, weeping' -> OJ *nak-* A 'to cry'; Shodon *nak'um*, Shuri *nacjun*, Ishigaki *na(Q)kun*, Hateruma *naguN*, Yonaguni *naguN*, pR **naki* 'to cry'

pK *-ki- 'to produce a sound or a sensation like the base onomatopoea': K, MK -i-, e.g. in K *kutek* 'nodding' -> K *kuteki*, MK *kuteki*- 'to nod (one's head)'

pTg *-ki:- ~ -gi:- 'to produce a sound or a sensation like the base onomatopoea': Ma./Sibe -ki:- ~ -gi:-, Evk. -ki:- ~ -gi:-, Neg./Sol. -ki- ~ -gi-, Even -k- ~ -g-, -kA- ~ -gA-, Orok/Olch./Oroch /Ud./Na. -ki- ~ -gi-. e.g. in pTg *sim-ki 'to cough' in Even *hi:mke-*, Evk. *simki*-, Neg. *simki*-, Olch. *siŋbi*-, Orok *sipki*-, Na. *siŋbi*-, *simki*-, Oroch *simpi*-, Ud. *simpi*- and Solon *simki*-.

pMo *ki- 'to do, make; produce a sound or a sensation like the base onomatopoea': MMo. *ki*- '1 to do, make', WMo. *ki*- '1', Khal. *xij*- '1', Bur. *xe*- '1', Kalm. *ke*- '1', Ordos *ki*- '1', Dong. *kie*- '1', Bao. *ke*-, *giə*- '1', Dag. *ki*:-, *xi*:-, *ši*:- '1', Mgr. *gi*-, *gə*- '1', Mogh. *ki*- '1', Eastern Yugur *gə*- '1'; iconic in e.g. *čis (mimetic for chirping) -> WMo. *čiski*- 'to chirrup, chirp, twitter, tweet'

pTk *ki(-)l- 'to do, make, produce a sound or a sensation like the base onomatopoea': OT *kil*- '1 to do, make', Tk. *kil*- '1', Tat. *qil*- '1', Uzb. *qil*- '1', Uigh. *qil*- '1', Az. *gil*- '1', Tkm. *qil*- '1', Khak. *xil*- '1', Balkar *qil*- '1', Shor *qil*- '1', Tuva *qil*- '1', Yak. *kün*- '1', Dolg. *gün*- '1', Kirg. *qil*- '1', Kaz. *qil*- '1', Nog. *qil*- '1', Bash. *qil*- '1', Karaim *qil*- '1', Kpak *qil*- '1', Kum. *qil*- '1', Chu. *ěs-xěl* 'deed'; iconic in e.g. *su (mimetic for snapping) -> OT *suki*- 'snap (one's fingers)'.

36. TO HIT/BEAT

pJ *tuk- 'to pound, hit with force': J *tuku* B, OJ *tuk-* 'to pound, husk, beat, hit with force'; Shuri *cicun*

pK *t(ə)hi- < *t(ə)ki- 'to hit, strike': MK ·thi- 'to hit, strike',

pTg *dug- 'to hit with force': Evk. *dug*- '1 to hit, beat, hammer', Even *duy*- '1', *duy*- '2 to batter, hit repeatedly', Neg. *dūw*- ~ *duy*- '2', *dukte*- '1', Ma. *du*- ~ *du*:- '1, thresh', Jur. *du-yu-mij* '1', Olcha. *du:či*- '2', Orok *du*: 1, *du:či*- '2', Na. *du*:- 1, *do:či*- '2', Oroch *du*:- '1, 2', Ud. *du*:- '2', *dukte*- '1'

46. BITE

pJ *kam- 'to bite, chew': J *kamu* (B), OJ *kam*- 'to bite, gnaw, chew, masticate, eat'; Hirara *kam*, Ishigaki *kamuŋ*, Yonaguni *kamuŋ*, pR **kamu*- 'to bite'

pMo *keme- 'to bite' (+*-lA-/ *-li- intensive-iterative suffix): MMo. *kemile*- 'to gnaw', WMo. *kemeli*-, *kemele*- '1 to gnaw, nibble, crack with one's teeth (tr.)', *kemki*- '2 to bite, snap with the teeth (tr.)', Khal. *ximle*-, *xemle*- '1', Bur. *ximel*- '1', Bur. (Bargu dial.) *ximil*-, Kalm. *keml*- '1', Ordos *kemele*- '1', *kemxel*- '2', Bao. *kamel*, Bao. (Dahejia dial.) *kaməl*- 'to bite', Dag. *keme*- '1', Eastern Yugur *kemle*-, *kelme*- '1'

pTk *kem- 'to bite, chew (intr.)' (+ *-(U)r causative): OT (Karakhanide) *kemür*- '1 to gnaw, chew (tr.)', Tk. *gemir*-, *kemir*- '1', Az. *gämür*- '1', Tkm. *gemir*- '1', Gag. *kemir*- '1', Uz. *kemir*- '1', Uig. *kemi(r)*- '1', Tat. *kimer*- '1', Khak. *kimər*- '1', Karaim *kemir*- '1', Kirg. *kemir*- '1', Kazakh *kemir*- '1', Nog. *kemir*- '1', Bash.

kimer- ‘1’ Balk. *kemir-*, Kpak *kemir-*, Kum. *gemir-*, Tuva *xemir-* ‘1’, Tof. *xemir-* ‘1’

53. GIVE

pJ *(*w*)ura- ‘to sell’: J *ur-* (A), OJ *ur-* ‘to sell’, Naze *uryuŋ* ‘to sell’, Shuri *uyuŋ*, Nakasuji (Miyako) *Qvi(i)*, Yonaguni *uruŋ*, pR **uri-* ‘to sell’
 pK **pala-kə-* ‘to sell’: K *phal-*, MK *pho(l)- / pho-l(o)-* ‘to sell’
 pTg **bu:-* ‘to give’: Evk. *bu:-*, Even *bö:-*, Neg. *bu:-*, Solon *bu:-*, Olcha *bu:wu-* Orok *bu:-*, Na. *bu:-*, Oroch *bu:-*, Ud. *bu:-*, Sibe *bu-*, Ma. *bu-*

55. TO BURN

pJ **tak-* ‘to burn (tr.)’: J *taku* (A), OJ *tak-* ‘to burn, boil, cook (tr.)’, Shuri *tak-* ‘to burn’, Hirara *yak'ī*, Ishigaki *yakuŋ*, Yonaguni *daguŋ*
 pK **taha-* < pK **taka-* ‘to burn (intr.)’: MK **tho-* ‘to burn, be on fire (intr.)’, MK *ta-hi-*, K *ttay-* ‘to make (fire), heat (with fire) (tr.)’ (MK -i causative-passive),
 pTk **ya-k-* ‘to ignite, burn (tr.)’: OT (Karakhanide) *yak-* ‘1 to ignite, burn (tr.)’, Tk. *yaq-* ‘1’, Tkm. *yaq-* ‘1’, Gag. *yaq-* ‘1’, Az. *yax-* ‘1’, Uz. *yɔq-* ‘1’, Uig. *yaq-* ‘1’, Kirg. *žaq-* ‘1’, Kaz. *žaq-* ‘1’, Bash. *yaq-* ‘1’, Nog. *yaq-* ‘1’, Tat. *yay-* ‘1’, Karaim *yaq-* ‘1’, Kum. *yaq-* ‘1’, Kpak *žaq-* ‘1’, Yak. *saq-*, Tofa. *ča'q-* ‘to produce fire’, Khalaj *ya:q-* ‘1’, Chu. *sot-* ‘1’

62. TO HEAR

pJ **uka-* ‘to receive, perceive, hear’: J *uke-* (B), OJ *uke₂-* ‘receive’, J *uketamawar-* (B), OJ *uke₂tamapar-* ‘to humbly listen, hear, receive’ (OJ *tamapar* - ‘humbly receive, be given’); Shodon *uk'iiyum*, Shuri *ukiyuŋ*, Yonaha (Miyako) *ukiī*, Ishigaki *uki(ru)ŋ*
 pMo **uka-* ‘to understand, think’: MMo. *uqa-* (HY, SH) ‘1 to understand, think’, *uqa* (SH) ~ *uxa'an* (HY) ‘2 mind’, WMo. *uqa-* ‘1’, *uqaya(n)* ‘2’, Dag. *ogo*, *owo* ‘brain’, *uka:* ~ *oha:n* ‘2’, Khal. *uxa-* ‘1’, *uxa:* ‘2’, Bur. *uxa-* ‘1’, *uxā(n)* ‘2’, Kalm. *uxə-* ‘1’, *uxa:n* ‘2’, Ordos *uxa:* ~ *uxa:n* ‘2’, Eastern Yugur *χGua-tu* ‘2’
 pTk **uk-* ‘to hear, understand’: OT *uq-* ‘1 understand’, Az. (dial.) *uquz* ‘knowing much’, Uz. *uq-* ‘1’, Uig. *uq-* ‘1’, Tat. (dial.) *ux-* ‘2 hear’, Kirg. *uq-* ‘2’, Kaz. *uqin-* ‘1’, Kpak. *uq-* ‘1’, Khak. *ux-* ‘1, 2’, Shor *uq-* ‘1’, Tuva *uy-* ‘1’

65. RED

pK **pil-ki-* ‘to be red’ (pK *-ki- ~ -kə- inchoative, e.g. MK *nul-* ‘to increase, be(come) longer, be better’ → MK *nulk-* ‘to be old, grow old (intr.)’ < pK **nil-ki-* (Robbeets 2015: 257-258): K *pwulk-*, MK *pulk-* ‘to be red, be crimson (intr.)’
 pTg **pula-* ‘to be red’: Evk. *xularin* (Evk. -rin colour suffix), *xulama* ‘red’ (Evk. -ma ~ -me ~ -mo- deverbal noun suffix), *hularga-* ‘to redden, turn red’ (Evk. -rgA- deverbal intransitive inchoative suffix), Even *xulal-* ‘to become red’, *xulána:* ‘red’ (Even -ńa: ~ -ńe: deverbal colour suffix), Neg. *xolayin* ‘red’, Solon *ulă* ‘red’, Na. *folgā(n)*, Ud. *xulaligi*, Ma. *fulara-* ‘to be red, to blush’, *fulğan* ‘red’, Sibe *fələğan*, *fulğan* ‘red’, Jur. *fula-gian* ‘red’

pMo **pula-yan* ‘red’ (-GAn resultative deverbal noun suffix, e.g. *uda-* ‘to tarry’ -> *udayan* ‘slow’): MMo. *xula'an* (HY, SH) ~ *hola:m* ~ *hula'an* ~ *hula:n* (Muq), *hulan* ‘red’, WMo. *ulayan*, Dag. *xula:n* ~ *hula:n*, Khal. *ula:n*, Bur. *ula:n*, Kalm. *ula:n*, Ordos *ula:n*, Dong. *xulan*, *xulay*, Bao. *felay*, *fulay*, Eastern Yugur *la:n*, Mgr. *fula:n*, Mog. *ulo:n*

70. TO CARRY

pJ **əpə-* ~ *ənpə-* ‘to carry on the back (tr.)’: J *ow-* (B), OJ *op-* ‘to bear, carry on the back’, EOJ *opuse-*, OJ *opose-*, J *oose-* (B) ‘to charge with’, J *obuw-* (B), OJ *obup-* ‘to carry on the back’; Nakijin (Okinawa) *QuuruN*, Shuri *QuuyuN* ‘to carry a load, carry a responsibility or sin’

pK **ep-* ‘to carry on the back’: K *ep-*, MK *ep-* ‘to carry on the back (tr.)’

pTg **ebe-* ‘to carry’: Na. *iwari-* ‘to tunload’, Evk. *ewe-* ‘to carry’, Even *iw-* ‘to bring in, to carry inside, to import’, Oroč. *ewu-gi-* ‘to bring’, *iwa-dala-* ‘to put a person on one’s shoulder’

77. THICK

pJ **puta-* ‘to be thick’: J *hutoi* (B) ‘to be thick, burly, fat’, OJ *puto_I-* ‘to be thick, fat’ (< **puta-wo-ra* (thick-COP-ADN); see Robbeets 2015: 339-340); Shuri *butasan*, Ikema (Miyako) *udakai*, pR **buta-* ‘stout, thick’

pK **pwuti-* ‘to become thick’: K *pu:s-* ‘to swell (intr.)’, MK ~*pwuT-* ‘to swell, increase’

pMo **büdü-* ‘to be large’: WMo. *büdügün*, *bidiüğün* ‘large, huge, big’ (WMo -*yun* / -*gün* deverbal noun deriving quality words (Poppe 1954: 46)), MMo. *bidun*, Dag. *budun*, *budu:n*, Khal. *büdü:n*, Bur. *büdü:n*, Kalm. *büdü:n*, *bödü:n*, Ordos *büdü:n*, *bidü:n*, Dong. *biedun*, Bao. *beidoy*, Eastern Yugur *büdü:n*, Mgr. *budin*, *bidun*, Mog. *beidü:n*, *beidun*

87. TO CRY / WEEP

pK **uli-* ‘to cry, howl’: K *wu:l-* ‘to cry, weep, shed tears (of humans); howl, sing (of animals); sound, ring (of things) (intr.)’, MK *wul-* ~ “*wu(l)-* ‘to cry, howl, sound (intr.)’

pMo **uli* ‘to howl’: MMo. *uli-* ‘1 to howl (of dogs, wolves, etc.)’, WMo. *uli-* ‘1’, Khal. *uli-* ‘1’, Bur. *uli-* ‘1’, Kalm. *ul-*, *ulə-* ‘1’, Ordos *uli-* ‘1’, Eastern Yugur. *olo-* ‘1’

pTk **u:li-* ‘to cry, howl’: OT *uli-* ‘to cry (of humans), to howl (of wolves and other animals)’, Tk. *ulu-*, Gag. *ulu-*, Az. *ula-*, Tkm. *u:li-*, Uig. *ulu-*, Kaz. *üli-*, Nog. *uli-*, Bash. *ülü-*, Kpak. *uli-*, Karaim *ulu-*, Tat. *ula-*, Kirg. *ulu-*, KBalk. *ulu-*, Kum. *ulu-*, Khak. *ulu-*, Tuva *ulu-*, Yak. *uluy-*, Dolg. *uluy*, Chu. *älax-* ‘to neigh’

96. WIDE

pJ **nənpa-* > **nənpi-* ‘to become long and wide’: J *nobe-* (B), OJ *nobe₂-* ‘to stretch, spread, lengthen (tr.)’, J *nobi-* (B), OJ *nobi₂-* ‘to extend, lengthen, stretch, spread, grow; be postponed (intr.)’, J *nobas-* (B), OJ *nobas-* ‘to extend, lengthen, stretch,

spread (tr.)'; Shuri *nubir-* 'to spread, extend (tr.) (B) *nubas-* (B) 'to extend, lengthen (tr.)'

pK **nelp(i)-* 'to be wide': K *nelp-* 'to be wide', MK *nep-* 'to be wide', MK *nelu-* 'to be wide'

pTg **nepte-* 'to become flat and wide': Even *nebde-* 'to pull off the skin in one piece', *nebde* 'open(ness); wide(ness)', *nebden-* 'to unfold widely; open up (of cloth, wings); straighten out; open up (of leaves) (intr.)' (Even -(A)*n*₍₂₎- processive), *nebdeńe*: 'flat, wide' (Even -ńA deverbal adjectivizer), *nebder-* 'to open, come out (of flowers) (intr.)', *nebdeku* 'opened up; wide', Evk. *nepte-* 'to unfold, smooth out, spread out', *nepteme* 'even, flat', Neg. *nepte-nepte* 'even', Na. *nepte-nepte* 'even', Olch. *nepte-nepte* 'even', Orok *nette-* 'spread out', Oroch *nepteyge* 'even, flat', Ud. *neptele* 'even, flat'

pMo **nebse-* 'to be(come) wide and long': WMo. *nebseger* 'wide and long' (WMo. -GAr deverbal quality noun (Poppe 1954: 46)), WMo. *nebseyi-* 'to be wide and long (of clothes), to be tattered, in rags (intr.)' (pMo *-yi- anticausative), WMo. *nebsegene-* 'to move (of something wide and long)' (WMo. -GA- factitive; Poppe 1954: 61, pMo *-nA- processive; Robbeets 2015: 235-237), Khal. *nevsiy-*, Bur. *nebši-*

99. HARD

pJ **kata-* 'to be hard': J *kata-* (A), OJ *kata-* 'to be hard, solid, tough, rigid'; Shuri *kata-* A 'to be sturdy, sure, saturated',

pK **kata-* 'to be hard, severe': K *kwut-*, MK *kwut-* 'to be hard', K *kkatalop-*, MK *skatalwop-* 'to be hard, difficult, complicated; be harsh, severe' (adj. n. + MK -lwop- 'to be characterized by'; pK **s(u/o)-* intensive prefix)

pMo **kata-* 'to become hard': WMo. *qata-* '1 to become hard, dry (intr.)', *qata-yu* '2 hard' (WMo -yu / -gü deverbal noun deriving quality words (Poppe 1954: 46)), MMo. *qata'u* '2', *qətəmər* 'dried (meat)', Dag. *katən*, *katən*, *katu*: '1', Khal. *xat-* '1', *xatu*: '2', Kalm. *xatə-* '1', *xatu*: '2', Ordos *yatu*: '2', Kalm. *xatə-* '1', *xatu*: '2', Ordos *yatu*: '2', Dong. *qidun*, *qitun* '2', Bao. *χotoj* '2', Eastern Yugur *yadu*: 1, Mog. *xata* '2', Mgr. *xada*:- '1', *xadəj* '2'

pTk **kat-* 'to be hard': OT *kat-* 'to be hard, firm, though', *katıy* '2 hard', OT (Karakhanide) *kat-* '1', *katıy* '2', Tk. (dial.) *kat* '2', Az. *gati* '2', Tkm. *gat*, *gatti* '2', Uz. *kötik* '2', Uig. *ketik* '2', Khak. *xatıy* '2', Shor *kadiy* '2', Tuva *ka'dıy* '2', Yak. *kiṭa:nax* '2', Dolg. *kiṭa:nak* '2', Tat. *katı* '2', Kirg. *katu*:- '2', Kaz. *kattı* '2', Nog. *kat* '2', Bash. *katı* '2', Kpak. *kattı* '2', Kum. *katı* '2', Chu. *xidā*

Table 1: Summary of the basic vocabulary comparative sets in support of Transeurasian affinity

LJ item	Proto-Japonic	Proto-Koreanic	Proto-Tungusic	Proto-Mongolic	Proto-Turkic	Corr. no	Robbeets
3 to go	*na-	*na-	*-na:-			27, 32	2015:

	'go away'	'go out'	'go out to'				149-151
25 to do/make	*-ka- iconic	*-ki- iconic	*-ki- iconic	*ki- 'do, make'	*kil- 'do, make'	13, 40	2015: 239-245
36 to hit/beat	*tuk- 'hit with force'	*t(Λ)ki- 'hit, strike'	*dug- 'hit'			9, 39, 16	2015: 141
46 to bite	*kam- 'bite'			*keme- 'bite'	*kem- 'gnaw'	13, 33, 26	2005: 383, 584- 85 2015: 146-147
53 to give	*(w)ura- 'sell'	*pΛlΛ-kΛ- 'sell'	*bu:- 'give'			3, 39, 30	
55 to burn (intr.)	*tak- 'burn (tr.)'	*tΛkΛ- /*taki- 'be on / set fire'			*yak- 'burn (tr.)'	9, 32, 14	2015: 139-140
62 to hear	*uka- 'receive, perceive, hear'			*uka- 'understand'	*uk- 'understand , hear'	46, 14, 32	2005: 394, 911- 912
65 red		*pil-ki- 'be red'	*pula- 'be red'	*pula-yan 'red'		1, 39b, 31	2005: 406-407, 499
70 to carry	*əpə- 'carry on back'	*ep- 'carry on back'	*ebe- 'carry'			34, 4, 34	2015: 137
77 thick	*puta- 'be thick'	*putΛ- 'increase'		*büdü- 'large'		3, 38, 10	2015: 111-112

		(intr.)'					
87 to cry/weep		*uli- 'cry, howl'		*uli- 'howl'	*u:li- 'cry, howl'		
96 wide	*nənpa- 'become wide and long'	*nelpʌ- 'be wide'	*nepte- 'become flat and wide'	*nebse- 'be wide and long'		27, 34, 6, 33	2015: 148, 149
99 hard	*kata- 'be hard'	*kata- 'be hard'		*kata- 'become hard'	*kat- 'be hard'	13, 32, 8, 32	2015: 107-108

3. Arguments for cognacy

3.1 Borrowing hierarchy

Empirically it is observed that languages tend to copy nouns more easily than verbs (e.g. Moravcsik 1975, 1978, Muysken 2000, Wichmann & Wohlgemuth 2008, Wohlgemuth 2009, Matras 2009, Tadmor et al. 2010). From the seventeenth to the nineteenth century, for instance, Japanese underwent intensive contact from Dutch leading to the global copying of over 300 words and the selective copying of syntax, but Japanese did not copy a single verb from Dutch (Irwin 2011). The relative stability of verbs is interrelated with a number of factors, such as the fact that verbal semantics tend to be less culturally determined than the meanings of nouns, that verbs are less perceivable as a distinct unit because they need more adaption to the morpho-syntactic frame of the sentence, and that there simply are less verbs than nouns.

3.2 Basic vocabulary

Traditionally, the strength of basic vocabulary lies in the fact that words with basic meanings tend to resist borrowing more successfully than random lexical items. The basic vocabulary list most commonly used in historical linguistics is the Swadesh

100 list (Swadesh 1955). However, this list contains mostly nouns and few verbs. Therefore, it produces too few useful comparanda in families with a verb-oriented lexicon, such as in the Transeurasian family where verbs are basic to word formation and many nouns are derived from them (e.g. in Tungusic and Mongolic the basic items for 'breast' are derived from the verbs 'to suck': pTg *xökö- 'to suck' > *xökö-n 'breast' and pMo *kökö- 'to suck' -> *kökö-n 'breast'). Recently, the Swadesh list has been updated by the Leipzig-Jakarta list (Tadmor et al. 2010), which partly remedies this imbalance in the vocabulary. There is an overlap for 62 items on the lists, but differences are triggered by the fact that the Leipzig-Jakarta list includes factors other than low copiability such as the degree to which the meanings are universal, the degree to which the words are simplex and the probability of attrition.

3.3 Typology of verbal borrowing

As far as the mechanisms of loan verb accommodation are concerned, most recipient languages can be categorized into two distinct groups: borrowed verbs either arrive as verbs, needing no formal accommodation, or, they arrive as non-verbs and need formal accommodation. In Wohlgemuth's (2009) terminology, the first group represents "Direct Insertion", while the second group represents either "Indirect Insertion", when the formal accommodation involves a verbalizer or else, "Light Verb Strategy", when the borrowed verb is integrated into a complex predicate. Most Transeurasian languages can be assigned to the second group because they display a clear preference for the non-verbal strategy (Wohlgemuth 2009: 159, 161); for instance, Tk. *klik-le-* and *klik et-* << English *click*; Khal. *zee-l-* << Mandarin *zhài* 'borrow, lend'; K. *coking ha-*, J. *zyogingu suru* 'to jog' << English *jog*; J. *demo-r-* << English *demonstrate*. Whereas the northern Tungusic languages prefer to borrow verbs through direct insertion, e.g. Evk. *vypolnaj-* << Russian *vypolnja-t'* 'to fulfill, carry out', the southern Tungusic languages use verbalizers, e.g. Ud. *tancewa-la-* << Russian *tancewa-t'* 'to dance' and Na. *voprosa-la-* << Russian *voproša-t'* 'to inquire, question'. If the 13 basic verb sets above would be the result of code-copying, they would represent instances of "direct insertion". This would run against the observable preference of the Transeurasian languages to apply the non-verbal strategy to verbal copies.

3.4 Regularity of sound correspondence

The cognate sets for basic verbs summarized in Table 1 display regular correspondences for each consonant of the verb root and for each but the root-final vowel, conform to the requirements in Table 2 and 3. Phonology can help to unmask verbal copies, even if extensive contact can result in strata of loanwords that exhibit

systematic sound correspondences. The stratum of loanwords from Middle Chinese that has entered both Japanese and Korean during the Tang period (618–906 AD) is known as Sino-Japanese and Sino-Korean and these strata display regular sound correspondences with Middle Chinese (Miyake 1997: 180). Nevertheless, phonological correspondences in strata of loanwords are the result of imitating the donor sounds as accurately as possible within the limits of the recipient's phonology. As opposed to imitation, the phonological correspondences between cognates are expected to reflect divergence. An example of a sound correspondence that is difficult to explain by code-copying is found in the cluster correspondence in 96. WIDE. The original cluster correspondences in Table 2 can be divided into homogamic and heterogamic clusters. Homogamic clusters are composed of a sonorant and a stop (*pTEA* *-*Rp*-, *-*Rt*-, *-*Rk*-) and merge in a nasal cluster (*pJ* *-*np*- > OJ -*b*-, *pJ* *-*nt*- > OJ -*d*-, *pJ* *-*nk*- > OJ *-*g*-) in Japanese. In heterogamic clusters, as illustrated in 96. WIDE on the other hand, the nasal and the stop have a different place of articulation, which results in the insertion of a parasitic stop (*pTEA* *-*m*^(P)*T*-, *-*n*^(T)*K*-, *-*ŋ*^(K)*T*-). The nasal is lost in the continental Transeurasian languages (*-*PT*-, *-*TK*-, *-*KT*-), whereas Korean and Japanese lose the final stop (*pJ* *-*mp*- > OJ -*b*-, *pJ* *-*nt*- > OJ -*d*-, *pJ* *-*ŋk*- > OJ *-*g*-.) Such a complex correspondence cannot easily be explained by code-copying.

Table 2: Consonant correspondences between the Transeurasian languages
(Robbeets 2005, 2015)

	<i>pJ</i>	<i>pK</i>	<i>pTg</i>	<i>pMo</i>	<i>pTk</i>	<i>pTEA</i>
1.	* <i>p</i> -	* <i>p</i> -	* <i>p</i> -	* <i>p</i> -	* <i>b</i> -	* <i>p</i> -
2	*- <i>p</i> -	*- <i>p</i> -	*- <i>p</i> -	*- <i>ɣ</i> -	*- <i>p</i> -	*- <i>p</i> -
3.	* <i>p</i> - / * <i>w</i> -	* <i>p</i> -	* <i>b</i> -	* <i>b</i> -	* <i>b</i> -	* <i>b</i> -
4.	*- <i>p</i> - / *- <i>w</i> -	*- <i>p</i> -	*- <i>b</i> -	*- <i>b</i> - / - <i>ɣ</i> -	*- <i>b</i> -	*- <i>b</i> -
5.	*- <i>np</i> -	*- <i>pC</i> -	*- <i>PC</i> -	*- <i>PC</i> -	*- <i>P(C)</i> -	*- <i>m</i> ^(P) <i>T</i> -
6.	*- <i>np</i> -	*- <i>Rp</i> -	- <i>RP</i> -	*- <i>RP</i> -	*- <i>RP</i> -	*- <i>Rp</i> -
7.	* <i>t</i> -	* <i>t</i> -	* <i>t</i> -	* <i>t</i> -	* <i>t</i> -	* <i>t</i> -
8.	*- <i>t</i> -	*- <i>t</i> -	*- <i>t</i> -	*- <i>t</i> -	*- <i>t</i> -	*- <i>t</i> -
9.	* <i>t</i> - / * <i>y</i> -	* <i>t</i> - (ci-)	* <i>d</i> - (ji-)	* <i>d</i> - (ji-)	* <i>y</i> -	* <i>d</i> -
10.	*- <i>t</i> - / *- <i>y</i> -	*- <i>l</i> -	*- <i>d</i> - (-ji-)	*- <i>d</i> - (-ji-)	*- <i>d</i> -	*- <i>d</i> -
11.	*- <i>nt</i> -	*- <i>c</i> -	*- <i>TC</i> -	*- <i>TC</i> -	*- <i>TC</i> -	*- <i>n</i> ^(T) <i>K</i> -
12.	*- <i>nt</i> -	*- <i>Rc</i> -	*- <i>RT</i> -	*- <i>RT</i> -	*- <i>RT</i> -	*- <i>Rt</i> -
13.	* <i>k</i> -	* <i>k</i> -	* <i>k</i> -	* <i>k</i> -	* <i>k</i> -	* <i>k</i> -
14.	*- <i>k</i> -	*- <i>k</i> - (- <i>h</i> -)	*- <i>k</i> -	*- <i>k</i> -	*- <i>k</i> -	*- <i>k</i> -
15.	* <i>k</i> -	* <i>k</i> -	* <i>g</i> -	* <i>g</i> -	* <i>k</i> -	* <i>g</i> -
16.	*- <i>k</i> -	*- <i>k</i> - (- <i>h</i> -)	*- <i>g</i> -	*- <i>g</i> -	*- <i>g</i> -	*- <i>g</i> -
17.	*- <i>nk</i> -	*- <i>kC</i> -	*- <i>KC</i> -	*- <i>KC</i> -	*- <i>KC</i> -	*- <i>ŋ</i> ^(K) <i>T</i> -
18.	*- <i>nk</i> -	*- <i>Rk</i> -	*- <i>RK</i> -	*- <i>RK</i> -	*- <i>RK</i> -	*- <i>Rk</i> -

19.	*t-	*c-	*č-	*č-	*č-	*č-
20.	*-t-	*-c-	*-č-	*-č-	*-č-	*-č-
20b.	*-si	*-l(i)	*-l(č)	*-l(č)	*-l(č)~-š	*-lč
21.	*k-	*k-, h-	*x-	*k-	*k-	*x-
22.	*-k-	*-k-	*-x-	*-g-~-k-	*-g-~-k-	*-x-
23.	*s-	*s-	*s-	*s-	*s-	*s-
24.	*-s-	*-s-	*-s-	*-s-	*-s-	*-s-
25.	*m-	*m-	*m-	*m-	*b-	*m-
26.	*-m-	*-m-	*-m-	*-m-	*-m-	*-m-
27.	*n-	*n-	*n-	*n-	*y-	*n-
28.	*-n-	*-n-	*-n-	*-n-	*-n-	*-n-
29.	*-r-	*-l-	*-r-	*-r-	*-r-	*-r-
30.	*-r-	*-l-	*-r-	*-r-	*-r ₂ -	*-r-
31.	*-r-	*-l-	*-l-	*-l-	*-l-	*-l-

Table 3: Vowel correspondences between the Transeurasian languages (Robbeets 2015)

	OJ < pJ	MK < pK	pTg	pMo	pTk	pTEA
32.	-a- < *-a-	-a- < *-a-	*-a-	*-a-	*-a-	*-a-
32b.	*CaCa	*C _A C _A	*CaCa	*CaCa	*CaC	*CaCa
33.	-a- < *-a-	-e- < *-e-	*-e-	*-e-	*-e-	*-ə-
34.	-o- < *-ə-	-e- < *-e-	*-e-	*-e-	*-e-	*-ə-
35.	-o- <? *-o-	-wo- < *-o-	*-o-	*-o-	*-o-	*-ɔ-
36.	-u- < *-o-	-wo- < *-o-	*-o-	*-o-	*-o-	*-ɔ-
37.	-o- < *-i-	-u- < *-i-	*-ö-	*-ö-	*-ö-	*-o-
38.	-u- < *-u-	-wu- < *-u-	*-u- (gü)	*-ü-	*-ü-	*-u-
39.	-u- < *-u-	-o- < *-ʌ-	*-u-	*-u-	*-u- / -i-	*-o-
39b.	PaRu- < *PauRu-	*P _A R _A - ~ *PiRi-	*PuRu-	*PuRu-	*PuR-	*PuR _U -
40.	-i- < *-i-	-i- < *-i-	*-i-	*-i-	*-i- / -i-	*-i-
41.	a- < *-a-	a- < *a-	*a-	*a-	*a-	*a-

42.	$\text{o-} < *\text{ə-}$	$\text{e-} < *\text{e-}$	$*\text{e-}$	$*\text{e-}$	$*\text{e-}$	$*\text{ə-}$
43.	$\text{o-} < ? *\text{o-}$	$\text{wo-} < *\text{o-}$	$*\text{o-}$	$*\text{o-}$	$*\text{o-}$	$*\text{o-}$
44.	$\text{o-} < *\text{i-}$	$\emptyset < ? *\text{i-}$	$*\ddot{\text{o}}-$	$*\ddot{\text{o}}-$	$*\ddot{\text{o}}-$	$*\text{o-}$
45.	$\text{u-} < *\text{u-}$	$\text{wu-} < *\text{u-}$	$*\text{u-}$	$*\ddot{\text{u}}-$	$*\ddot{\text{u}}-$	$*\text{u-}$
46.	$\text{u-} < *\text{u-}$	$\emptyset < ? *\text{u-}$	$*\text{u-}$	$*\text{u-}$	$*\text{u-}$	$*\text{u-}$
47.	$\text{i-} < *\text{i-}$	$\text{i-} < *\text{i-}$	$*\text{i-}$	$*\text{i-}$	$*\text{i-}$	$*\text{i-}$

3.4 Absence of prototypical copy-characteristics

Even if it is improbable that basic verbs get copied, it is not impossible. But in such cases, there are still a number of characteristics that can betray a set of copied verbs. They include morphological complexity, semantics and distribution. Code-copying is a likely explanation in cases when the similarity concerns a morphologically complex verb in one language that cannot be analyzed as such in the other language. For instance, the Turkic and Tungusic languages share a cognate verb root reflecting the Leipzig-Jakarta item 73. TAKE (i.e. pTg **al-* 'to take, receive' in Even *al-* '1 to take, receive', Evk. *al-* '1', Neg. *al-* '1', Solon *ali-* '1', Orok *ali-* '1', Na. *ali-* '1', Olcha *alu:-* '2 to give, hand over', Oroch *alo:-* '2', Ud. *ali-* '1', *alu-* '2', Sibe *iali-* '1', Ma. *ali-* '1', Jur. *ali-* '2' and pTk **al-* 'to take' in OT *al-* 'to take', Tk. *al-*, Tkm. *al-*, Az. *al-*, Gag. *al-*, Uz. *al-*, Uig. *al-*, Tat. *al-*, S-Yug. *al-*, Kirg. *al-*, Kaz. *al-*, Nog. *al-*, Bash. *al-*, Balk. *al-*, Karaim *al-*, Kpak. *al-*, Salar *al-*, Kum. *al-*, Khak. *al-*, Shor *al-*, Tuva *al-*, Tofa. *al-*, Yak. *il-*, Dolg. *il-*, Khalaj *al-*, Chu. *il-*) The Mongolic languages reflect an imperative form 'give!', notably WMo *ali*, Khal. *al*, *alive*, Bur. *ále:*, Kalm. *ál*, *áłs*, Ordos *ali*, Dong. *ali*, Bao. *an* and Mgr. *ali*. This situation represents a typical case of code-copying, whereby a verb form is only copied in one inflected form, namely the imperative, but does not reflect a complete verbal paradigm.

A second example is the correspondence between Ma. *amila-* 'to anoint a Buddhist icon's eyes with blood and thereby impart life to it' and WMo. *amila-* 'to give live, enliven, animate an image by making strokes on a sacred image, come to life' (Rozycki 1994: 5, 17-18). The Mongolian verb is a denominal derivation from WMo. *ami(n)* 'life, breath' with the manipulative suffix WMo. *-lA-* (Robbeets 2015: 221-222). The derivation holds for Mongolian but not for Manchu because the basic nominal form is absent there. The unparalleled morphological complexity of the Mongolic form in Manchu is indicative of code-copying. The observation that Manchu semantics is restricted to a Buddhist cultural context further confirms the borrowing scenario of a complex Mongolian verb into Manchu.

Another example of sharing only secondary semantics is the correspondence between Manchu *tala-* ‘to confiscate, seize property as a legal punishment’ and the Mongolic and Turkic verbs for ‘to plunder’ (pMo **tala-* ‘to plunder’ in WMo. *tala-* ‘to take away, confiscate, plunder, ruin’, (SH) MMo. *tala-* ‘1 to rob, plunder’, Khal. *tala-* ‘to rob, confiscate’, Kalm. *talə-* ‘1’, Ordos *tala-* ‘1’, Dag. *tale-* ‘1’ and pTk **tala-* ‘to plunder, harm’ in OT *tala-* ‘to damage, pillage’, Karakhanide *tala-* ‘1 to pillage, plunder’, Tk. *tala-* ‘1’, Tat. *tala-* ‘1’, MTk. *tala-* ‘1’, Uz. *tala-* ‘1’, Uig. *tala-* ‘1’, Az. *tala-* ‘1’, Tkm. *ta:la-* ‘1’, Khak. *tala-* ‘1’, Chu. *tula-* ‘harm, slander’, Yakut *tala:-* ‘1’, Kirg. *tala-* ‘1’, Kaz. *tala-* ‘1’, Nog. *tala-* ‘1’, Bash. *tala-* ‘1’, Karaim *tala-* ‘1’, KKAlp. *tala-* ‘1’, pTk **tala-* ‘to plunder, harm’). The verb MMo. *tala-* occurs in the *Secret History* with the meaning ‘rob, plunder’. Only later, within the context of Mongolian customary law, it developed the meaning ‘confiscate’, which is reflected in Khal. *tala-* ‘rob, confiscate’. The Manchu verb *tala-* ‘confiscate, seize property as a legal punishment’ is restricted to this secondary, culturally specific meaning (Doerfer 1965: 543). This observation indicates that *tala-* is a copy from Mongolian into Manchu. The restricted distribution of the verb root in Tungusic further confirms the borrowing scenario. Apart from Ma. *tala-* ‘confiscate, seize property as a legal punishment’, Evenki and Even have *tala:-* ‘rob, plunder, take away’ (Cincius 1977: 156). The North-Tungusic verbs are thought to have been copied from Yakut *tala:-* ‘rob, pillage, plunder’ (Malchukov 2003: 246).

It can be noted that the distribution of the Japonic cognates in the Ryukyuan languages reduces the probability of borrowing of the verbs from Korean at a time when Mainland Japanese had already separated from the Ryukyuan languages and was spoken on the Mainland.

3.6 Broken contact chain

Code-copying is typically unidirectional and linear, progressing from one contact language into the other and then, perhaps, into the next. Genealogical divergence, by contrast, can be pictured as the rings formed when a stone is thrown into the water: innovations start in the center and push the older forms towards the periphery. This observation explains why some very conservative inherited items leave traces in remote areas, but are barely attested elsewhere in the linguistic continuum. Thus, gaps in the attestation of members of an etymology may be relevant. When the contact chain is broken, a genealogical explanation presents itself. The absence of a corresponding verb in one or more intermediate contact languages can be observed in 46 TO BITE, 55 TO BURN, 62 TO HEAR, 77 THICK, 87 TO CRY/WEEP and 99 HARD.

3.7 Multiple setting

Most examples of borrowed verbs have a binary setting in common: they typically go from a model language into a recipient language. Examples of the same verb

progressing into a third or fourth language are relatively rare, except in prestige settings where one language serves as a lingua franca or dominates many others. The English verb *to film*, for instance, has been exported to many other languages such as German / Dutch *filmen*, French *filmer*, Polish *filmować*, Greek *filmaro*, Hungarian *filmez*, Finnish *filmata* etc. The Transeurasian languages consist of 5 families and, based on the archeological records, do not reflect a unilateral prestige relationship. Hence, it is unlikely that the 13 sets of common basic verbs above should be accounted for by code-copying.

4. Conclusion

In this article, I examined sets of basic verbs shared between the Transeurasian languages and weighed code-copying against cognacy as a possible historical motivation for the observed similarities. For this purpose, I advanced 13 etymologies for basic verbs and verbal adjectives, for which the reconstructed meaning of the proto-Transeurasian verb is an item of the Leipzig-Jakarta list. I required the etymologies to reflect cognates in at least three out of the five Transeurasian branches.

It is safer to attribute the similarities among the basic verbs to common ancestorhood than it is to attribute them to code-copying. The indications of genetic continuity are the following: (1) the hierarchical tendency that nouns are more easily and frequently copied than verbs, (2) the overall stability of basic vocabulary, (3) the typological feature that the Transeurasian languages display a clear preference for the non-verbal strategy of verbal copying, (4) the absence of characteristics prototypical for borrowed verbs such as poor distribution, morphological complexity and only secondary semantics in common, (5) the regularity of the sound correspondences for each subsequent consonant and vowel of the root, except the root-final vowel, (6) the absence of a corresponding verb in one or more intermediate languages in the presumed contact chain and (7) the multiple occurrence of a cognate, simultaneously in three or more branches. By consequence, it becomes increasingly difficult to explain the basic verbs as copies, all the way from Turkic into Japanese. For all the shared properties across the Transeurasian languages that are induced by contact, I cannot but attribute the cognates discussed here to common ancestorhood.

Abbreviations

Az.	Azerbaijanian	Dolg.	Dolgan
Bao.	Bao'an	Dong.	Dongxiang (Santa)
Bash.	Bashkir	Evk.	Evenki (Tungus, Ch. Elunchun)
Bur.	Buriat	J	(standard Tokyo) Japanese
Chu.	Chuvash	Jur.	Jurchen
Dag.	Dagur	K	(standard Seoul) Korean

Kalm.	Kalmuk	pJ	proto-Japonic
Kaz.	Kazakh	pK	proto-Koreanic
Khal.	Khalkha	pMo	proto-Mongolic
Khak.	Khakas	pR	proto-Ryukyuan
Kirg.	Kirgiz	pTg	proto-Tungusic
Kpak	Karakalpak	pTk	proto-Turkic
Kum.	Kumyk	SH	Secret History of the Mongolians
Ma.	Manchu	Sol.	Solon
MK	Middle Korean	Tat.	(Volga) Tatar
MMo.	Middle Mongolian	Tk.	Turkish
Mgr.	Monguor	Tkm.	Turkmen
Mogh.	Moghol	Tof.	Tofalar
Na.	Nanai (Goldi, Ch. Hezhe)	Ud.	Udehe (Ude, Udege)
Neg.	Negidal	Uigh.	Uighur
Nog.	Nogai	Uz.	Uzbek
OJ	Old Japanese	WMo.	Written Mongolian
Olch.	Olcha (Ulcha, Ulchi, Olchi)	Yak.	Yakut
OT	Old Turkic		

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