The relationship between Proto-Indo-European and Proto-Yeniseian

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Abstract

Both the Indo-European and Yeniseian language families have traditionally been considered isolates. The linguistic evidence presented in this paper indicates that Indo-European languages spoken throughout Europe and Asia are closely related within the world's languages to the Yeniseian languages spoken in central Siberia.

Introduction

The Yeniseian language family is native to Central Siberia and consists of one extant language – Ket, and five extinct - Yug, Kottish, Arin, Assan, Pumpokol (1). These languages share many contact-induced similarities with the South Siberian Turkic languages, Samoyedic languages and Evenki. These include long-distance nasal harmony, the development of former affricates to stops and the use of postpositions or grammatical enclitics as clausal subordinators (2). Yeniseian nominal enclitics closely approximate the case systems of geographically contiguous families.

Despite these similarities, Yeniseian stands out among the languages of Siberia in a few typological respects, such as the presence of tone, the prefixing verb inflection, and highly complex morphophonology (3). This language family has highly elaborate verbal morphology and has been described as having up to four tones or no tones at all (4). To this day no relationship to other language family has been definitively proven, although many attempts were made. One of these attempts, the Dene-Yeniseian family, first proposed by Alfredo Trombetti and supported with evidence by Edward Vajda, has gained massive, but not universal, acclaim (5).

The Genetic Evidence

The Kets belong predominantly to haplogroup Q (93.8%) (6) and Proto-Indo-Europeans mostly belonged to haplogroups R1b and R1a (7). The Yamnaya culture of Eastern Europe, which mainstream scholars identify with the Proto-Indo-Europeans, was exclusively R1b. This culture was made up of Eastern Hunter Gatherers and Caucasian Hunter Gatherers (8), the former one being associated with the Mal'ta–Buret' culture of Central Siberia, which was located west of Lake Baikal and roughly in the same area where historically the Yeniseian languages were spoken. The Mal'ta–Buret' culture is dated to 24000 BC to 15000 BC and is known for the only known sample of basal Y-DNA R* (9). The genetic makeup of this culture was found to be very similar to the ones of Yamnaya culture and Ket people (10). Haplogroup Q and R are siblings and come from the same parent haplogroup – P (11). It is possible that the languages spoken by the people bearing these two haplogroups were also genetically related.

The linguistic evidence

No linguist has tried (to my knowledge) until now to connect Proto-Yeniseian and Proto-Indo-European and it's not hard to understand why. Apart from the fact that the urheimats of these two language families are far away from each other geographically and chronologically, they

have some important typological differences. Some similarities still exist, for example, both Proto-Indo-European (12) and Proto-Yeniseian (13) had an SOV word order. Ket has an active-stative alignment (14) while the reconstructed ancestor of Proto-Indo-European, the Pre-Proto-Indo-European language, shows many features known to correlate with active alignment like the animate vs. inanimate distinction, related to the distinction between active and inactive or stative verb arguments (15). Another distinctive feature of Yeniseian is morphological predictability, which enables a linguist to build a form, departing from a root, the known morphological inventory and morphological rules, and get it right without having seen the correct form before. In most of Eurasia the only language family that matches Yeniseian in this respect is Indo-European (3).
The following list consists of a Proto-Indo-European lemma and a Proto-Yeniseian cognate. Sometimes additional evidence from Indo-European languages is given. For Proto-Yeniseian I used Sergei Starostin's reconstructions, but also modern Ket words and Heinrich Werner's reconstructions if available (1). The abbreviations PIE and PY are used for Proto-Indo-European and Proto-Yeniseian, respectively. ˇ

1. PIE *dʰewh₂- [smoke] = PY *duʔ(χ)- [smoke], Ket: duʔ ; Werner *duʔ

2. PIE *sénos [old] = PY *siń [old, withered], Ket: śīń / śi:ń

3. PIE *(s)dʰonu [fir tree] = PY *dɨńe [fir tree], Ket: dɨń

4. PIE *temH- [dark] = PY *tum- [black], Ket: tūm ; Werner *tʰum

5. PIE *dʰeh₁- [to do, put, place] = PY *di(j) [to lie down, put down], Ket: dij

6. PIE *ǵenh₁- [to produce, to beget, to give birth] = PY *ǯeʔŋ [people], Ket: dɛʔŋ

7. PIE *gen- [to compress] = PY *ǯa̋ŋ [to knead, rub], Ket: da:ŋ[4] ; Werner *d'aʔəŋə

8. PIE *gel- [to be cold, to freeze] = PY *ǯVr₁- (~-l) [cold, frost], Kottish: čal ; Werner *t'al

9. PIE *ǵʰes- [hand; to take] = PY *kas- (~g-) [take], Ket: kɔ:śi[4]

10. PIE *ǵónu [knee] = PY *qōń- (~χ-,-ɔ̄-) [cartilage], Ket: qɔń[4] ; Werner *qɔʔən'ə

11. PIE *(s)ker- [to cut off] = PY *Kar [mountain], Arin: kar

12. PIE *gʷőws [cattle] = PY *kuʔs [horse], Ket: kuʔś [cow] ; Werner *kuʔs

13. PIE *kh₂em- (Latin camur, Iranian *kamarā-) [to bend, to curve] = PY *gamur- [crooked], Kottish kamur

14. PIE *temp- [to extend, to stretch] = PY *t[e]mbVĺ- [root], Kottish: thempul

15. PIE *ḱi- ~ *ḱe- ~ *ḱo [here, this] = PY *si- / *su- [stem of demonstrative pronouns], Ket śi:ŋ / śīŋ [here] ; Werner *si-, *se- / *sə-, *so- / *su-

17. PIE *só, séh₂, tód [this, that] = PY *tu- [demonstrative stem], Ket tuda[6] [this]

18. PIE *kom or *ku, *k^{w}om [to, towards], which gave Proto-Slavic *kъ(n) = PY *ka- / *kə- [demonstrative stem], Ket: kańĩŋə^{1} / kańiŋə^{6} [(towards) there]

19. PIE *peh$_{2}$w- [few, little] = PY *pVl- (~-ŕ-,-r$_{1}$-) [child], Arin: alpolát, Pumpokol: phálla and PY *poʔl [short], Ket: hɔʔĺ ; Werner *p^{h}oʔl

20. PIE *seh$_{2}$y- [to be fierce, afflict] = PY *s[e]ji [furuncle; wound], Ket: śibaŋ^{6}, śivaŋ^{6} ; Werner *sei

21. PIE *derḱ- [to see] = PY *de-s [eye], Ket: dēś ; Werner *des

22. PIE *ḱers- [to run] = PY *ses [river], Ket: śēś ; Werner *set / *tet

23. PIE *b^{h}el-, *b^{h}elǵ^{h}- [to swell] = PY *boks[e]ji (~-ɔ-) [pimple], Ket: bɔkśá. Compound with the second component *s[e]ji [wound, sore]

24. PIE *ḱeres- [rough hair, bristle] = PY *sə̄s [fur from reindeer's legs], Ket: śaś^{4} ; Werner *seʔəsə

25. PIE *h$_{2}$eHs- [to burn, to glow] = PY *xus- [warm], Ket: ūś ; Werner *usə or PY *ʔes [God, sky], Ket: ēś ; Werner *es

26. PIE *sek^{w}e-, *sk^{w}ē- [to tell, talk] = PY *saga- [to say, speak], Ket: sagabeť (Castr.), sáɣa-bet (Werner)

27. PIE *ten- [to stretch, to extend] = PY *ta(ʔ)ŋaj [to pull, stretch], Ket: táŋaj / táŋej

28. PIE *gerh$_{2}$- [to cry hoarsely, crane] = PY *guriraK [crane], Kottish: kurīrax

29. PIE *peyH- [fat, milk] = PY *pɔʔɔĺe [fat], Ket: hōĺe ; Werner *p^{h}olə

30. PIE *h$_{1}$ésh$_{2}$r̥ [blood] = PY *sur [red, blood], Ket: śūĺam^{1} ; Werner *suʌ

31. PIE *d^{h}éǵ^{h}ōm [earth, human] = PY *keʔt [man, person], Ket: kɛʔt / kɛʔd

32. PIE *g^{w}el- [throat] = PY *kərVd (~g-,-ʒ) [throat], Ket: kʌĺit^{6} / kʌĺat^{6} ; Werner *kərVd (~g-,-ʒ)

33. PIE *d^{h}eg^{wh}- [to burn] = PY *doʔq (~ -χ) [to burn (trans.)], Ket: -dɔq (-rɔq)

34. PIE *h$_{1}$es- [to be] = PY *hVs- [to be], Ket: uśeŋ^{5,6} ; Werner *əsə(ŋ) / *usə(ŋ)

35. PIE *pewḱ- [pine] = PY *pōj [fir tree], Ket: hɔ́j-ɔkś ; Werner *pʰoʔəjə

36. PIE *dʰǵʰyes- [yesterday] = PY *qodes (~χ-,-ɔ-) [yesterday], Ket: qɔŕeś[5]

37. PIE *bak- [peg, club] = PY *bäk- [log], Ket: bāɣə ; Werner *baga

38. PIE *méynos [my, mine] = PY *b- [my], Ket: āp

39. PIE *men- [hand] = PY *biʔŋ [hand], Yug: biʔŋ

40. PIE *keku- (Middle Persian čakuč) [cudgel, hammer shaped stick] = PY *čok [axe], Ket: tōk ; Werner *t'okə

41. PIE *(s)kʷálos [large fish, sheatfish] = PY *χol- [a k. of fish], Ket: kɔĺgit[5] (Werner: qōĺgit) ; Werner *qol

42. PIE *men- [to think, mind] = PY *ʔan[ɨ]ŋ [to think], Ket: aniŋbɛt[6] / ańbɛt[5,6] ; Werner *anəŋ-

43. PIE *ḱerh₂- [horn] or PIE *h₁élḱis [elk] = PY *sēr₁e [deer], Ket: śɛĺ[4] ; Werner *seʔəʌə

44. PIE *ḱol-bʰo- [half] = PY *χɔlab [half], Ket: qɔĺap[5] ; Werner *qoləp ; The PIE root is uncertain as it has been reconstructed after the only known descendant: Proto-Germanic *halbaz

45. PIE *gʰerdʰ- [belt] = PY *guʔda [girdle, strap, string], Ket: kuʔt ; Werner *kuʔt

46. PIE *gʰreh₁- [to grow] = PY *gVre [grass], Kottish: keri ; Werner *keʌə

47. PIE *ǵʰey- [winter] = PY *gəte [winter], Ket: kʇti[1] ; it is unclear to me why Starostin reconstructed <g>, because all cognates in the Yeniseian languages have <k>. Werner also reconstructs *kəte

48. PIE *wósr̥ [spring] = PY *sir₁- [summer], Ket: śīĺi[1] ; Werner *siʌə

49. PIE *h₂weh₁- [to blow (of wind)] = PY *bej [wind], Ket: bēj ; Werner *baj

50. PIE *gʷol- [ashes] = PY *qorVn- (~χ-,-ɔ-,-l-) [ashes], Ket: qɔĺən[6] /qɔllən[6] ; Werner *qolən

51. PIE *ph₂tḗr [father] = PY *ʔob [father], Ket: ōp ; Werner *ob(ə)

52. PIE *sed- [to sit], PBS *sēstei [to sit down] = PY *sVs- [to sit], Ket: sésete "I sit"

53. PIE *méh₂tēr [mother] = PY *ʔama [mother], Ket: ām

54. PIE *telk- [to thrust, strike, crush] = PY *tokV (~-x-) [mortar], Ket: tō ; Werner *$t^{h}op^{h}$ə

55. PIE *peh₃- [to drink] = PY *ʔop- (~ x-, -b), Ket: d-a-b-ɔp ; Werner *op

56. PIE *tek- [to run, to flow] = PY *teK- [drop, (rain)dropping], Kottish: ur-thekŋ

57. PIE *nu [now] = PY *ʔen [now], Ket: ēn ; Werner *en

58. PIE *swep- [sleep] = PY *sVm- [dream], Kottish: šame

59. PIE *k^{w}yeh₁- [to rest, peace] = PY *qut (~ χ-) [to be finished, end], Ket: -qut / -ʁut

60. PIE *yeh₂- [to go]= PY *hejVŋ [to go], Ket: ējeŋ[1] / ɛjeŋ[5]

61. PIE *h₂éng^{wh}is [snake] = PY *ʔɔŋKoj [snake], Kottish: oŋxoi

62. PIE *ne, *me [no, not] = PY *wə- [not, there is not], Ket: bɓńʼ ; Werner *bə / *bən

63. PIE *h₂eys- [to wish, to request] = PY *si-aq- [to ask], Ket: śijaq[5]

64. PIE *splǵ^{h}-ēn- [spleen] (the exact root remains difficult to reconstruct) = PY *tVpVĺ- (~-b-) [spleen], Kottish: tebolä

Words with only one reconstructed cognate in PIE or PY:

1. PY *boʔk [fire], Ket: bɔʔk = Latin focus [hearth, fire], Armenian boc' [fire]

2. PY *deʔG [lake], Ket: dɛʔ ; Werner *degə / *deʔə = PIE *d^{h}enh₂- [to set in motion, to flow], *déh₂nu [river goddess]

3. PY *kūńʼ (~g-) [wolverine], Ket: ku:ńe[4] ; Werner *kuʔənə = Proto-Baltic-Slavic *kaunā́ [marten]

4. PY *son- [blue, green], Ket: śon ; Werner *sʌj / *sʌn = Proto-Slavic *siňь [blue], Proto-Iranian *axšáyHnah [blue, green]

5. PY *doʔn [knife], Ket: dɔʔn = PI *dā- [to cut], Old Iranian *dāna-ka-

6. PY *qaĺVŋ (~χ-) [gull], Ket: qaĺəŋ[5] = Proto-Celtic *wailannā [seagull]

7. Ket ɯ̄ks [bull] = PIE *uksḗn [bull]

8. PY *sip- [rat], Ket: śíɣ-ut = Old East Slavic соболь (sobol') [sable], Middle Persian smwl [sable]

9. PY *sib- [to whisper], Ket: siverej-betta (Werner: śíveŕej) ; Werner *sip^{h}əl = Proto-Slavic *šьpъtъ [to whisper]

10. PY *maʔm [breast], Ket: maʔm = Ancient Greek mámmē (breast)

11. PY *χuʔs [tent made of birch bark, house], Ket: quʔś ; Werner *quʔs = Proto-Germanic *hūsą [house], possibly Latin casa

12. PY: *tul-(x)aʔq [rotten (wood)], Ket: tulaq[5] = Proto-Slavic *tǫxlъ [rotten]

Possible loanwords not mentioned before (to my knowledge):

1. PY *p[u]jm- [neck] - Proto-Turkic *bōjn [neck]
2. PY *kam(a) (~ q-, h-) [vessel, dish] - Proto-Turkic *kāp [vessel]
3. PY *senVŋ [shaman] - Evenki samān [shaman]
4. PY *χɔpVr [foam]- Proto-Turkic *köp- (to swell; foam)
5. PY *suŕ- [yellow] – Proto-Turkic *siarïg [yellow,white]
6. PY *tul (~-Ĺ, -r$_1$) [left] - Proto-Turkic *sōl [left]

Conclusion

On the basis of provided data, it seems unlikely that similarities of this nature could exist between two language families that do not share a common origin. Chance is ruled out by probability, because two unrelated language families can't have 74 accidental resemblances. The provided list of shared words includes basic vocabulary (smoke, old, hand, to be, blue), flora and fauna (fir tree, fish, deer, bull), natural phenomena (cold/frost, fire, wind) and demonstrative pronouns. Language contact is improbable as there is no evidence pointing to contact between Indo-European and Yeniseian speakers. The most plausible explanation is genetic relationship, although more research needs to be done to settle this problem.

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