Sumerian and the Ainu-Minoan stock

Alexander Akulov

independent scholar; Saint Petersburg, Russia; e-mail: aynu@inbox.ru

Abstract

Since the very deciphering of the Sumerian language many pretty naïve attempts to attribute it to different language families have been made. It seems highly possible that Sumerian is rather close to Northeast Caucasian languages which belong to the Ainu-Minoan stock. To resolve this question in the current paper Sumerian is compared with Tabasaran by the Verb Grammar Correlation Index (VGCI). If a value of VGCI is about 0.4 or more then the compared languages are related. VGCI of Tabasaran and Sumerian is 0.4, it means that Tabasaran and Sumerian belong to the same family, and due to the transitivity of relatedness, Sumerian is a part of the Ainu-Minoan stock.

Keywords: Sumerian; Tabasaran; Northeast Caucasian; VGCI; comparative linguistics

1. Introduction to the problem

Since the very deciphering of the Sumerian language many attempts to attribute it to different language families have been made. All such attempts show a completely naïve and amateurish understanding of what a language actually is; there is no difference between papers written by certified linguists or by amateurs. In all such attempts the compared languages are actually considered as heaps of lexemes and conclusions about the relatedness of Sumerian to a certain language family are made by comparison of randomly selected lexical items. In such attempts grammatical/structural level of languages is harshly ignored: grammatical morphemes are compared in a lexical way, i.e.: are compared only meanings and material implementations while grammatical morphemes consist of three components: meanings, position, and material implementation; and position often is of higher importance than material implementation.

The methodology of detecting the relatedness of languages based on the comparison of lexis is outside of normal scientific methods because it allows completely different conclusions about the same language, thus, it is stated, for instance, that Sumerian is related to Munda (Diakonoff 1997), Sumerian is related to Tibetan (Braun 2001), Sumerian is related to the so-called Dene-Caucasian (Bengtson 1997), Sumerian is related to Uralic family (Parpola 2010). It looks like a plot for a vaudeville sketch.

The presupposition that Sumerian is related to Uralic is the most wretched the most ridiculous, it is based on a national inferiority complex, but not on facts. Parpola states that Sumerian is related to Uralic, but Sumerian language already existed at least at the end of the 4th millennium BCE while Proto-Uralic started to decay only in the 3rd millennium BCE. Also between the area where exited Sumerian (Mesopotamia) and the area where existed Proto-Uralic (the area between the southern course of the Volga and the southern spurs of the Ural mountains) there is a distance of about 3000 km. It would be possible to speak somehow about the relatedness of these languages if they would belong to a larger language family, but Parpola states that Sumerian is related immediately to the Uralic family, he doesn't speak about a larger family. Moreover, should be taken into account the fact that Sumerian has a

well-elaborated prefixation, and grammatical meanings in Sumerian are often expressed by prefixes, while Uralic languages have no prefixation and all grammatical meanings are expressed by suffixes only. Since Sumerian has a peculiar prestige as one of the most ancient written languages of the world, proposals for its relatedness to a certain language family sometimes have a nationalistic background.

Thus, we can see that conclusions about the relatedness of languages based on comparison of lexis are off base, and only comparison of grammatical systems can answer the question about the relatedness of certain languages.

Fig. 1. The territory where Tabasaran is spoken is marked by red, the territory where Sumerian was spoken in 4th – 2nd millennia BCE is marked by violet (map has been made after Google maps screenshot)

The presupposition that Sumerian can be quite closely related to some languages belonging to the so-called Sino-Caucasian/Ainu-Minoan stock looks highly realistic; it seems highly possible

that Sumerian is rather close to Northeast Caucasian languages. To resolve this question in the current paper Sumerian is compared with Tabasaran by the Verb Grammar Correlation Index method. Tabasaran is one of the Northeast Caucasian languages, and previously it was proved that Northeast Caucasian languages belong to the Ainu-Minoan stock (Akulov 2021).

2. The method

Verb Grammar Correlation Index (VGCI) estimates the degree of correlation of grammatical systems of compared languages.

The method is based on the idea that any language is ordered pair <A; Ω> where A is a set of grammatical meanings, and Ω is the set of their positional implementations.

The method is about verb grammar because verb grammar is a much more universal item than that of a noun: in any language there are tenses/aspects/moods/modalities while not in every language there are cases and grammatical genders.

The method works with really existing/existed languages, but not with reconstructions since reconstructions are often nothing else, but constructed languages based on the "artist sees so" principle.

The method doesn't pay any attention to material exponents at all, it deals with pure structures. This point is especially important in the case of Sumerian which phonology is yet a pretty rough approximation made after Akkadian dictionaries of Sumerian words.

VGCI is the superposition/conjunction of two indexes: index of correlation index of sets of grammatical meanings and index of correlation of positional distributions of common meanings. The formula for calculation of VGCI is the following:

$$VGCI = \left(\frac{N_{e(A \cap B)}}{N_{e(A)}} + \frac{N_{e(A \cap B)}}{N_{e(B)}} \right) \frac{1}{2} \times \left(\frac{i_1 + i_2 + \cdots + i_n}{N_{e(A \cap B)}} \right)$$

where:
A is the set of grammatical meanings of one language;
B is the set of grammatical meanings of another language;
N_e means the number of elements;
i means a particular index of positional correlation.

The closer related languages show the higher values of VGCI, languages that are more distant relatives show lower values of VGCI.
If a value of VGCI is about 0.4 or more then considered languages are related; if a value of VGCI is about 0.3 or less then considered languages are not related. For more details about the method see Akulov 2015, 2018.

3. Comparison

The list of Tabasaran grammatical meanings expressed in verb has been compiled after Alekseev M. E, Shikhalieva S. Kh. 2003.

1. Agent: 6 -sfx
2. Categorical future: -sfx
3. Conditional: -sfx
4. Deontic modality: -sfx + -pp + -pp
5. Direction 1: prfx-
6. Direction 2: prfx-
7. Direction 3: prfx-
8. Direction 4: prfx-
9. Direction 5: prfx-
10. Direction 6: prfx-
11. Direction 7: prfx-
12. Future (general future): -sfx + -pp
13. Imperative: zero marker/fusion
14. Indicative: zero marker
15. Interrogative: -sfx
16. Hypothetical future: -sfx
17. Negation: -sfx / prfx- / -inxf-
18. Narrative past: -sfx
19. Perfect: -sfx
20. Pluperfect: -sfx + -pp
21. Plural: prfx * fusion * 3 -sfx / prfx- / prfx- * 3 -sfx / pfrx + fusion / -sfx
22. Present: -sfx + -pp
23. Prohibitive: prxf-
24. Singular: 2 prfx * fusion * 3 -sfx / 2 prfx- / 2 prfx- * 3 -sfx / pfrx + fusion
25. Subject: 6 -sfx
26. Volitional mood: -sfx + -pp

The list of Sumerian grammatical meanings expressed in verb has been compiled after Kaneva 2006.

1. Ablative dimensional marker: 2 prfx-
2. Agent: 4 prfx-/7 -sfx/ 3 crfx
3. Allative dimensional marker: 6 prfx-
4. Animate: 2 prfx-/ 3 -sfx
5. Assertive mood: prfx-
6. Causative (no special marker)
7. Centrifugal/non-topical version: prfx
8. Centripetal version: prfx-
9. Centripetal version 2: prfx-
10. Comitative dimensional marker: 6prfx-
11. Dative dimensional marker: 7 prfx-
12. Desiderative/Optative mood: prfx-
13. Future simple: -sfx
14. Hypothetical volition mood: prfx-
15. Imperative: R/zero marker
16. Imperfect aspect: -RR-/3 suppletive forms/56 prfx- + -sfx/ 56 prfx + suppletive forms + -sfx/56 prfx- + -RR- + -sfx

17. Inanimate: 2 prfx-/3 -sfx
18. Inanimate patient version: prfx-
19. Indicative mood: zero marker
20. Indirect inanimate object centrifugal version: prfx-
21. Indirect inanimate object centripetal version: prfx-
22. Intensity: -RR-
23. Iterative: -RR-
24. Locative dimensional marker: prfx-
25. Locative-allative dimensional marker: 3 prfx-/crfx
26. Negative mood: prfx-
27. Negative mood 2/vetitive: prfx-
28. Non-future: zero marker
29. Patient: 8 prfx-/7 sfx-
30. Perfect aspect: 28 prfx + sfx/ 28 prfx + suppletion + -sfx/ 28 prfx- + -RR- + -sfx/ 21 crfx + sfx/ 21crfx + suppletion + -sfx/ 21 crfx + -RR- + -sfx
31. Plural: 3 -sfx/ 3 -sfx + -RR-/ 30 -sfx + suppletion/ 12 prfx- + -sfx/ 12 prfx- + -RR- + -sfx / 32 prfx- + suppletion + -sfx/ 9 -sfx + crfx/ 9 -sfx + -RR- + crfx/ 18 -sfx + suppletion + crfx
32. Prohibitive: prfx-
33. Reciprocity: -RR-
34. Request mood: prfx-
35. Singular: 4 sfx/ 16 prfx + -sfx/ 32 prfx- + supletion + -sfx/ 16 prfx + sfx/ 32 prfx + suppletion + -sfx
36. Subject: 7 -sfx
37. Stative version: prfx-

VGCI of Tabasaran (T) and Sumerian (S):

1. Agent: T 6 -sfx ~ S 4 prfx-/7 -sfx/ 3 crfx $(1 + 6/14)2 ≈ 0.71$
2. Direction 1: prfx- ~ S Allative dimensional marker: 6 prfx- $(1 + 1/6)/2 ≈ 0.58$
3. Direction 2: prfx- ~ Centrifugal/non-topical version: prfx 1
4. Direction 3: prfx- ~ Centripetal version: prfx- 1
5. Direction 4: prfx- ~ Centripetal version 2: prfx- 1
6. Direction 5: prfx- ~ Locative dimensional marker: prfx- 1
7. Direction 6: prfx- ~ Indirect inanimate object centrifugal version: prfx- 1
8. Direction 7: prfx- ~ S Indirect inanimate object centripetal version: prfx- 1
9. Future simple: T -sfx + -pp ~ S –sfx 1
10. Hypothetical future: T –sfx ≠ S Hypothetical volition mood: prfx- 0
11. Imperative: T : zero marker/fusion ~ S: R/zero marker $(0.5 + 0.5)/2 = 0.5$
12. Indicative: T ~ S zero marker 1
13. Negation: T -sfx / prfx- / -inxf- ~ S prfx- $(1 + 1/3)/2 ≈ 0.66$
14. Perfect: T –sfx ≠ S: 28 prfx + sfx/ 28 prfx + suppletion + -sfx/ 28 prfx- + -RR- + -sfx/ 21 crfx + sfx/ 21crfx + suppletion + -sfx/ 21 crfx + -RR- + -sfx 0
15. Plural: T prfx * fusion * 3 -sfx / prfx- / prfx- * 3 -sfx / pfrx + fusion / -sfx ≠ S Plural: 3 -sfx/ 3 -sfx + -RR-/ 30 -sfx + suppletion/ 12 prfx- + -sfx/ 12 prfx- + -RR- + -sfx / 32 prfx- + suppletion + -sfx/ 9 -sfx + crfx/ 9 -sfx + -RR- + crfx/ 18 -sfx + suppletion + crfx 0
16. Present: -sfx + -pp ≠ S Non-future zero marker 0
17. Prohibitive: T prfx ~ S prfx 1

18. Subject T 6 –sfx ~ S 7 –sfx (1 + 6/7)/2 ≈ 0.93
19. Volitional mood: T -sfx + -pp ≠ S Desiderative/Optative mood: prfx- 0

Thus, VGCI of Tabasaran and Sumerian is the following: (19/26 + 19/37)/2 * (9 + 0.93 + 0.71 + 0.66 + 0.58 + 0.5)/19 ≈ 0.4.
Such value of VGCI means that Tabasaran and Sumerian are related, i.e.: belong to the same family, and due to the transitivity of relatedness, Sumerian is a part of the Ainu-Minoan stock.

References

Akulov A. 2018. Ainu-Minoan stock. *Cultural Anthropology and Ethnosemiotics*, Vol. 4, № 1; pp.: 2 – 25

Akulov A. 2021. Northeast Caucasian languages and the Ainu-Minoan stock. *Cultural Anthropology and Ethnosemiotics*, Vol. 7, N 1; pp.: 2 – 8

Akulov A. 2015. Verbal Grammar Correlation Index (VGCI) method: a detailed description. *Cultural Anthropology and Ethnosemiotics*, Vol.1, № 4; pp.: 19 – 42

Alekseev M. E, Shikhalieva S. Kh. 2003. *Tabasaraskii yazyk* (Tabasaran language) Academia, Moscow

Bengtson Jh. D. 1997. The Riddle of Sumerian: A Dene-Caucasian Language? *Mother Tongue*. Issue III, December 1997; pp.: 63 – 74

Braun J. 2001. *Sumerian and Tibeto-Burman*. Warsaw: Agade

Diakonoff I.M. 1997. External Connections of the Sumerian Language. *Mother Tongue*. Issue III, December 1997; pp.: 54 – 62

Kaneva I.T. 2006. *Shumerskii yazyk* (*The Sumerian language*). Peterburgskoe Vostokovedenie, St. Petersburg

Parpola S. 2010. Sumerian: A Uralic Language (I) Proceedings of the 53e Rencontre Assyriologique Internationale Vol. 1: Language in the Ancient Near East (2 parts); pp.: 181 – 210