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Genetic and Areal Classification of Languages in Anatolia and Caucasus

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Linguistic classification has always been a very controversial issue, especially for languages for which we have insufficient documentation or for which we can only speculate about their prehistorical or even sometimes historical localization. As far as Antiquity is concerned, we have extensive information on the Graeco-Latin cultures and relatively detailed sources on the cultures bordering the Mediterranean region as well as on Near East and Ancient Anatolia, but our information on more remote areas, e.g. on Ancient Caucasus, are by far more limited. Intuitively, we are often tempted to locate languages where they are spoken today, unless we have evidence for migrations in the past, and to transpose our picture of the modern languages to previous periods of history. In addition, if we know that different languages belong to the same family, we often build a pre-written scenario to account for their present-day localization based on our vision of the spread of the entire family. My aim in this paper is to discuss some elements that enable us to understand language diffusion in Ancient Anatolia and Caucasus. My research area *stricto sensu* is the Indo-European family, but I will try to address the issue from a broader perspective.

First of all, I would like to draw attention to a preliminary difficulty when dealing with linguistic proximities, the difficulty of determining the relative share of common inheritance in terms of genetic subgrouping and of intensive convergences in terms of linguistic contact. This is a very difficult challenge especially for Anatolia and Caucasus since it has been repeatedly claimed that each of these two regions forms a distinct linguistic area. The notion of linguistic area (or *Sprachbund* in German) is used when neighboring, but unrelated languages exhibit similar phonological, morphological and syntactical features. The idea of a Caucasian *Sprachbund* was promoted by different scholars and is still subject of discussion today. On the other hand, with the discovery of the archives of the Hittite empire, at the beginning of the 20th century, Ancient Anatolia has become more familiar to us, and scholars have pointed out striking similarities between Hittite, an ancient Indo-European language, and the other languages surrounding it. More tentatively, attempts were made to

argue for an organic link between the Caucasian and the Anatolian linguistic areas. It was claimed, for example, that some of the features that characterize the present-day Armenian language derive from the impact of Ancient Anatolian areal features, with Urartian as a medium. It was also claimed that Hurrian and Hattic, two languages spoken in Ancient Anatolia, have some connection with the East Caucasian or with the Kartvelian families. The question raised by these assumptions is the extension of linguistic contacts between Anatolian and Caucasus and how they can help us explain the evolution of the languages attested in the Caucasus region.

Let us start with two maps illustrating linguistic diversity in Ancient Anatolia and in Modern Caucasus. The first map presents Ancient Anatolia in a simplified form:

Ancient Anatolia (from Watkins 2008:50)

Ancient Anatolia has a complex history with three leading cultures in the past. In the second millenium BCE we have the Hittite empire with Hattušaš as its capital; the Hittite language was an Indo-European language belonging to the so-called 'Anatolian' subgroup. It did not survive the collapse of the Hittite empire around the 13th century BCE. A cognate language was Luwian, which was spoken mostly on the southern and western fringes of Anatolia and survived as such or through its descendants (Lycian, Lydian, Carian, Pisidian and Sidetic) up to the first millenium BCE. Another Indo- European language documented in Anatolia during the first millenium BCE was Phrygian, attested in two different forms (Old and New Phrygian) in western Anatolia. None of these languages have survived the turn of the Christian era. Other, non-Indo-European languages spoken in Ancient Anatolia were (a) Hattic, a non-Indo-European language of uncertain genetic affiliation, which was spoken in the same area as Hittite and has left a few words and phrases scattered in Hittite texts; (b) Hurrian, which was spoken in southeast Anatolia and Northern Mesopotamia (mainly in Mitanni) and is said by some to have connections

to Proto-East-Caucasian; and (c) Urartian, which seems to belong to the same family as Hurrian as part of the Hurro-Urartian family and was spoken in the region of the Lake Van, in eastern Anatolia. In the southern part of Anatolia, we find Semitic languages such as Ugaritic, Assyrian and Eblaite as well as Sumerian, a language isolate spoken in southern Iraq. This picture could be supplemented by other languages which had only a more limited presence in Anatolia, e.g. Ancient Greek (on the coasts of Asia Minor and in Pamphylia) or even Old Indic (sporadically attested in Mitanni). From this overall picture of Ancient Anatolia, we go to present-day Anatolia through two major linguistic and cultural events. First, there was the arrival of Iranian tribes probably from Central Asia somewhere during the 2nd millenium BCE and the creation of large empires, especially the Persian Empire which culminated during the Achaemenid period (550-330 BCE) in present-day Turkey and Iran, and elsewhere. The second major event was the arrival of Turkic languages which, originating from CentralAsia or even further afield, conquered a large part of Anatolia during the Middle Ages (ca 6-11th centuries CE).

We have much less information about the linguistic situation in Ancient Caucasus. It has been claimed that the ancient language of the kingdom of Colchis (gr. Κόλχις *Kólkhis*), mentioned by some Greek authors (5th century BCE) in connection with the legend of the Golden Fleece, was a Kartvelian language or even an early form of Georgian. We also have evidence about Armenians in Antiquity, culminating with the Orontid dynasty (6th-2nd century BCE), but the Armenian language itself is documented only later, since the 5th century CE. Ancient sources of the 1st millenium BCE also mention other peoples and languages, Caucasian Albanians, ancestors of the modern Udi language, in present- day Azerbaijan (called *Ardhan* in Parthian sources), Caucasian Iberians in present-day Georgia (probably speaking a form of Georgian). Finally, there were Cimmerians, probably Iranians, around the Black Sea, but their precise localization is disputed, reaching present-day Ukraine and various regions of Caucasus.

Turning to modern Caucasus, the first thing to say is that this region is renowned for being a textbook case of linguistic diversity. Already in the 10th century an Arab traveller, Ibn Haukal, reported the existence of 360 languages in the Caucasus, which is certainly an overestimation, but actually points to a real language diversity[1]. This diversity can be illustrated by the following map:

[1] See Catford (1991:233).

Modern Caucasus (from Beroutchachvili, Radvanie 1996)

There are in the Caucasus at least 5 linguistic families: (a) Kartvelian (with Georgian, Laz, Mingrelian and Svan); (b) Northeast Caucasian or Nakho-Dagestanian (with Nakh, Chechen, Avar-Andic, Tsezic, Lak, Dargi, Lezgian and Khinalugh); (c) Northwest Caucasian or Abkhazo-Adyghean (with Abkhaz, Abaza, Circassian and the now extinct Ubykh); (d) Turkic languages (Azeri, Kumik); (e) Indo-European languages (Armenian and different varieties of Iranian languages including Ossetic, Kurdish or Tat Persian). There is also evidence for Semitic (Neo-Aramaic) and Mongolic (Kalmyk) languages. Superstrate languages are Turkish, Persian, and, more recently, Russian. All this is well- known and the reason why I made these points was only to ensure that the picture is as clear as possible to everyone.

What emerges from this is the great linguistic diversity of Ancient Anatolia, to which one should add languages of more recent attestation (mostly Iranian or Turkic), and the even greater linguistic diversity of Modern Caucasus.

Both for Ancient Anatolia and for Modern Caucasus the existence of a linguistic area has been postulated and the attention was drawn to a number of linguistic

peculiarities shared by some, if not most of the languages of the area, despite their different genetic affiliation. The notion of *Sprachbund*, first formulated in the 1930th for the Balkans, was transposed by some scholars to our two areas. The idea of an 'Anatolian Sprachbund' was developed quite recently, prominently by Calvert Watkins (2008). Among the peculiarities shared by Hittite and other, non-Indo-European languages spoken in Ancient Anatolia there are the following features:

1. **Consonant devoicing in absolute word-initial position:** the voiceless/voiced opposition in consonants (e.g. T / D), probably realized as a tense / lax opposition (e.g. TT or DD / T or D) was eliminated word- initially in favour of the fortis/voiceless member (T-, no *TT-, no *D-, no *DD-). This feature occurs in Hittite, Luwian (both Indo-European Anatolian) as well as in Hurrian (non-Indo-European). In Hittite[2], voiceless stops are noted by gemination of voiceless stops, voiced stops by single writing of voiceless stops (Sturtevant's Law), i.e. *tt* [t], vs. *t* [d]; word-initially, we have only *t*, and this is not only a writing convention of the cuneiform syllabary, but a real phonetic distribution, as shown by Lycian (Lyc. *tideimi* 'son, child' < **d^hi-d^heh_1-*, cf. Hitt. *tēta-* 'breast, teat', Cluw. *tītan-* 'breast, teat', *titaimma/i-* 'suckling'). We have exactly the same distribution in Hurrian[3]; the situation in Hattic and Urartian is unclear.

2. **Laryngeal consonants:** the conservation of one of the PIE laryngeals in Hittite (tense *ḫḫ* , lax *ḫ*< PIE

**h*$_2$) is paralleled by the existence of similar sets of consonants in Hattic (e.g. *ḫukur-* 'observe, see', *šaḫaw* 'god'), Hurrian (e.g. *ḫaš-* 'hear', *paḫi* 'head') and Urartian (e.g. *ḫini-* 'son', *naḫu* 'bring, carry').

3. **Vocalic length and stress:** there is a strong correlation between vocalic length and stress, shared by Hittite, Hurrian and Hattic: stressed vowels are lengthened, unstressed vowels are shortened. In the Hittite cuneiform script, following an Akkadian habit, vocalic length and stress are indicated by the so-called 'plene writing' or *scriptio plena* (i.e. the use of a distinct vocalic sign), cf. Hitt. *ne-e-pi-iš* 'sky' [nḗbis] from PIE **neb^h-es-*. The same link between vocalic length and stress is found in Hurrian[4] and Hattic; the same was probably true of Urartian.

4. **Ergativity:** the subject of transitive verbs is marked differently from the subject of intransitive verbs, which is marked in the same way as the object of transitive verbs. Hurrian, Urartian and Hattic are ergative languages. The Anatolian languages (Hittite, Luvian) are split-ergative languages with grammatical gender as the line of division: common gender nouns display nominative-accusative alignment (as in the other Indo-European languages), but for neuter nouns there is a special (common gender) ergative form (Hittite *-anza*, Luvian

[2] Pozza (2011).
[3] See Speiser (1941:35-36).
[4] Thiel (1975:99).

-*antis*) functioning as subject of transitive verbs.

5. **Development of enclitic chains of particles in the second position of the sentence:** the second position in the sentence is usually filled by enclitic chains of particles; this feature is predominant in Hittite, Hattic and Hurrian. In Hattic the verb is sentence-initial, but there is also the possibility of using a sentence initial particle *pala/bala*, which has a striking functional parallel in Hittite *nu*.

6. **Possessive constructions and case copying[5]:** in possessive noun phrases, there is a strong tendency towards copying the ending of the head noun in the genitive form, transforming it into a possessive adjective. This tendency predominates in Cuneiform Luwian, e.g. *zaššin* DUMU-*aššaššin annin* 'this child's mother' (where the possessive noun phrase 'this child' has adopted the ending of the head noun 'mother'), and case copying is likewise regular in Hurrian and Urartian[6].

7. **Vocabulary:** there is evidence for loan relationships between Hittite, Hattic, Hurrian and Urartian. Hittite has numerous loanwords from Hattic (e.g. *daḫanga-* 'shrine', *tabarna-* 'ruler', *purulli-* 'earth') and Hurrian (e.g. *zurki-* 'blood [offering]', *huprushi-* 'crucible', and *puhugari-* 'substitute', ultimately from Akkadian *pūḫu*)[7]. Note that there is between Hurrian and Urartian a large body of etymological cognates, going back to the Hurro-Urartian proto-language (e.g. Hurrian *ar-* = Urartian *ar-* 'give', Hurrian *pab(a)ni* = Urartian *babani* 'mountain').

These linguistic convergences were produced to support the assumption of intensive linguistic interactions between the different languages of Ancient Anatolia, but they raise a fundamental problem. As with other textbook cases such as the Balkans or Mesoamerica, the assumption of a linguistic area is usually based on positive evidence in terms of shared features, but the negative evidence is usually discarded, and the discrepancies found between the different languages are swept under the carpet. It cannot be denied that the languages spoken in Ancient Anatolia display a profoundly different typological structure: to take just one example, Hittite is a suffixing language, whereas Hattic morphology heavily relies on prefixes. It will always be necessary to take into account the bias introduced by this difference in perspective.

Let us now turn to the Caucasus region. The reconstruction of a 'Caucasus linguistic area' is old, but still remains a controversial issue. Already in the 19th century, the Russian caucasologist Peter von Uslar (1816-1875) noted striking similarities between the different languages of the Caucasus region[8] and the claim for a Caucasian

[5] Luraghi (2008).
[6] Pozza (2011).
[7] Wilhelm (1995).
[8] Cf. Catford (1991:241).

Sprachbund was clearly made during the 20th century by different scholars, e.g. by Polák (1950:400), but it was rejected by others, e.g. by Tuite (1999). The evidence for a Caucasian linguistic area was collected by Klimov (1978), Catford (1991:241sq.) and Chiribka (2008). It potentially includes the following features:

1.**Extremely rich system of consonants, characterized in particular by the existence of glottalic consonants[9]:** there are 29 consonants in Georgian and up to 80 consonants in the now extinct Ubykh or even 110 consonants in Sadz Abkhaz[10]. Chiribka (2008:43) speaks of 'consonant-type languages'. Besides the usual labial, dental, velar and uvular stops (e.g. *p, t, k, q*) and two affricates (*ts* and *tʃ*) there is in the Caucasian linguistic area a large array of alveolar, postalveolar and uvular fricatives, as well as bilabial and dental nasals, bilabial or labiodental approximants, palatal semivowels, lateral approximants. Most striking is the existence of *glottalic* stops (e.g. *t'*) opposed to voiced and voiceless stops: glottalized obstruents are shared by indigenous Caucasian languages as well as by East Armenian and Ossetic (Indo-European), some dialects of Azeri and Kumyk (Turkic) and even the Neo-Aramaic dialects of Caucasus (Semitic).

2.**Agglutinative morphology:** predominant in the Turkic languages, with a spillover into East Armenian and Ossetic (originally fusional Indo-European languages).

3.**Group-inflection:** in groups of syntactically related words, only one of them is morphologically marked, e.g. Laz *didi ǯal-epe-s* 'to the big trees' ('big tree-PL-DAT')[11]. We observe the same feature in Ossetic and Modern Armenian, where it is originally foreign to Indo-European morphology, compare Ossetic *mæ zærond fyd* 'my old father' (nominative singular) and *mæ zærond fyd-æn* 'to my old father' (dative singular, with the dative marker *-æn* expressed only at the end of the group)[12].

4.**Order of morphological markers:** number markers precede declension markers, e.g. Lezgi *ruš-ar-iz* 'to the girls' ('girl-PL-DAT'), Turkish *köy-ler-in* 'of the villages' ('village-PL-GEN'). This order was extended to Ossetic and Modern Armenian, in contrast to the more usual reverse order in the Indo- European languages (declension+number). Compare in this respect Classical Armenian (*ban-iw-k'* 'by the things' < 'things-INSTR-PL') and Modern Armenian (*ban-er-ow* 'by the things' < 'things-PL-INSTR').

5.**High degree of polysynthetism:** a striking feature of the languages of Caucasus is their richness in 'cases' (or 'bound morphemes'). It was argued, for example, that Tabasaran (Northeast Caucasian) has more than 50 cases and that Tsez (Northeast Caucasian) reaches the extreme number of 126 cases. These numbers, however, are questionable because, first, they include a rich system of postpositional locative cases and, second, the different case markers can be combined together, which significantly increases the number of possible forms;

[9] Cf. Catford (1991:242-248).
[10] Cf. Catford (1991:242-243), Chiribka (2008:43).
[11] Cf. Chiribka (2008:55).
[12] Abaev (1964:124).

Comrie & Polkinski (1998:105) ascribe to Tabasaran only 14 or 15 and to Tsez only 18 cases. This does not invalidate the fact that bound morpheme marking is particularly rich in many of the languages spoken in the Caucasus region. In comparison, Georgian has 7 cases, Svan 6 cases, Mingrelian 9 cases (both Kartvelian); Azeri (Turkic) has 6 cases, like Turkish. It is striking that the Indo-European languages of the Caucasus have best preserved the richness of the PIE case system (7 cases in Modern Armenian) or have even developed new cases (9 cases in Ossetic, some of them being of postpositional origin). Note, however, that there are only 3 cases in Ubykh and 2 cases in Abkhaz (both Northwest Caucasian).

6.**Category of evidentiality:** the morphological encoding of evidentiality, expressing the speaker's attitude towards the information or providing an indication about its source, is attested in nearly all Caucasian languages (Northeast Caucasian, Northwest Caucasian and Kartvelian); it is also found in Modern Armenian, but absent in Ossetic. Compare Abkhaz *jə-s-z-aj+lə-m-k'+aa-jt'* 'I did not understand it' and Abkhaz *jə-s-z-aj+lə-m-k'+aa-zaap'* 'apparently I did not understand it'[13]. It is often argued that the development of evidentiality in the Caucasus region is due to Turkic influence, but it can be traced back to Proto-Abkhaz, at a time when there was no contact with Turkic languages (see Chiribka 2003b:266). Both in Georgian and Armenian evidentiality is restricted to perfect tenses ('split evidentiality'), which is not the case in Svan, Mingrelian and Laz.

7.**Potential verbs:** existence of special verbal forms 'to express ability to produce an action', e.g. Abkhaz *də-z t^{w}a-wa-m* '(s)he cannot sit down', Chechen *kxossa-vala* 'to be able to jump' or Mingrelian *a-č'ar- e(-n)* '(s)he can write it'[14]. In Archi (Northeast Caucasian), the potential form of the verb is derived from the evidential form followed by *χoqi*.

8.**Ergativity:** nearly all Caucasian languages are ergative, or display ergative features, with the exception of the Mingrelian dialect of Zan. In Kartvelian, ergativity appears contextually limited and thus realized as a split-ergative alignment.

9.**Synthetic marking of causativity:** suffixal causatives are shared by many Caucasian languages. In Lezgian (Northeast Caucasian), for example, causativity can be marked by a special suffixal formation (e.g. *kwax̂un* 'to get lost' → *kwadarun* 'to lose')[15]; in a similar way, Chechen (Northeast Caucasian) has a suffixal causative (e.g. *dada* 'to run, flee' → *daduo* 'to steal' < 'to cause to run, to flee'). In Georgian (Kartvelian), causatives of intransitive verbs are built from the addition of a prefix *a-* and a suffix *-eb-* (e.g. *duγ-s* 'it boils' → *a-duγ-eb-s* 'he boils it, he makes it boil'), causatives of transitive verbs from the addition of a prefix *a-* and a suffix *-in-eb-* (e.g. *çer-s* 'he writes' → *a-cer-in-eb-s* 'he makes X write'). See also Azeri *ye* 'to eat' → *ye-dir* 'to feed, to make X eat' (with a second causative *ye-dir-t* 'to make Y feed X'). Synthetic marking of causativity is also found in Modern Eastern Armenian: *jeral* 'boil (intrans.)' → *jerac'nel* 'boil (trans.)'. Note, however, that Ossetic does not have a synthetic, but a periphrastic causative using the auxiliary *kənın*

[13] Example from Chiribka (2003:252).
[14] Chiribka (2008:52). More details on the Caucasian causatives see Hewitt (1980).
[15] Haspelmath (1993:165).

'to make' (+ inf.).

10.**Use of directional and orientational preverbs:** locative preverbs are abundantly attested in nearly all subgroups. They are prolific in Lezgian (Northeast Caucasian), e.g. *aq̃-udun* 'take out', *ag-udun*'approach', *al-udun* 'take off', *ak-udun* 'take away', *xk-udun* 'take away', *k-udun* 'start', *g-udun* 'split',*gal-udun* 'detach', *kak-udun* 'put under', *q̃aq̃-udun* 'take off', *hal-udun* 'cover, put on', *agal-udun* 'lean', *acal-udun* 'fill'[16][16]. Compare also Georgian (Kartvelian): *mi-di-is* 'is going', *mi-mo-di-s* 'is coming and going', *mo-di-s* 'is coming', *a-di-s* 'is going up', *a-mo-di-s* 'is coming up', *ga-di-s* 'is going out', *ga-mo-di-s* 'is coming out', *gada-di-s* 'is going over/across/through', *gad-mo-di-s* 'is coming over/across/through', *še-di-s* 'is going in', *še-mo-di-s* 'is coming in', *ča-di-s* 'is going down (into)', *ča-mo-di-s* 'is coming down (into)', *da-di-s* 'goes regularly, goes down'[17]. There are, however, languages with a minimal set of preverbs (e.g. Ubykh) or without any preverb at all (Armenian).

11.**Postpositions:** e.g. Georgian *mta-ze* 'on the moutain' (< 'moutain=at')[18], Abkhaz (Northwest Caucasian) *s-qə nt* 'from me' (< 'me=from'), *yə-qə nt* 'from him' (< 'him=from')[19]. Armenian and Ossetic, originally prepositional, have lost many of their prepositions and replaced them by postpositions, cf. Modern Armenian *jeŕk'i meǰ* 'in the hand' (< 'hand in')[20], *im ēnkeroǰ het* 'with my friend' (< "my friend with')[21], Ossetic *xæʒar-y sær* 'on the roof' (< 'roof on'). In some cases, thepreference for postpositions can be due to their nominal origin (e.g. Arm. *het* 'footstep', Oss. *Sær* 'head'), but in most cases an areal influence cannot be ruled out.

12.**Double coordination:** coordination attached to both members of the coordinated structure, e.g. Lezgian *zi buba-ni bubadin buba-ni* 'my father and my father's father' ('my father=and of the father the father=and)[22], Abkhaz *war-g'ə sar-g'ə* 'you and me' (< 'you=and I=and'), Chechen *vaša a jiša a*'brother and sister' (< 'brother=and sister=and'), Svan *m-i s-i* 'you and me' (< 'I=and you=and')[23].

13.**SOV word order:** predominantly attested in all languages spoken in the Caucasus.

This list, based on Chiribka (2008), is only intended to provide a representative sample of features considered by some scholars to be potentially diagnostic for the reconstruction of a pan-Caucasian *Sprachbund*. It goes without saying that such a broad-spectrum presentation leaves itself wide open to criticism, for at least three

[16] Haspelmath (1993:167 and 171).
[17] Hewitt (1995:148-149).
[18] Chiribka (2008:53).
[19] Hewitt (2000).
[20] Chiribka (2008:53).
[21] Dum-Tragut (2009:300).
[22] Haspelmath (1993:327).
[23] Chiribka (2008:53).

reasons. The first one is that it ignores fine-grained differences between the individual languages by focussing on excessively broad parameters without taking into account their language-specific realizations. The second reason is that such a panoramic view of a linguistic area does not provide a clear picture of the linguistic interactions existing on a smaller scale between the individual languages. It is, for example, well-known that the Tsezic languages were influenced by their contact with Georgian; there are between Georgian and Armenian special relationships; there is a Northwest Caucasian substrate in Ossetic, and probably in West Kartvelian (Mingrelian, Laz); etc. The degree of multilingualism has always been very high in the Caucasus region. All these linguistic contacts, realized at different times and in different contexts, are overlooked by overall presentations of the Caucasian linguistic area. The third reason why we should handle this list of shared features with due caution is that the selected features are of unequal status, some of them being too trivial to be used as a piece of evidence for a linguistic area.

At this point, I have presented what has been claimed to be two different linguistic areas, the Anatolian and the Caucasian linguistic areas. Not surprisingly, considering their geographical contiguity, there have been several attempts at reconstructing organic links between these two linguistic areas. These attempts immediately run into serious problems. A first problem is due to the considerable time-lag between the available data. The Anatolian linguistic area is reconstructed on the basis of ancient languages of the 2nd or 1st millenium BCE, whereas the Caucasian languages are of more recent attestation: Georgian and Armenian are documented from the 5th century CE onwards, and we now have Caucasian Albanian texts from the same period; we have Azeri texts at least from the 16th century; but the majority of the Caucasian languages are only known from very recent times (19th or even 20th centuries). Any comparison between Anatolia and Caucasus must take this time difference seriously. In addition, some of the languages now spoken in the Caucasus region are newcomers and may have been affected by areal features to a lesser extent. A second difficulty results from the background of the linguists who proposed these comparisons. Depending on their degree of expertize in the different language families, they can be tempted to overemphasize the position of the language family they know best or, even more seriously, to misrepresent data of languages they know least about. A third problem is that linguistic contacts often imply more or less explicit assumptions about territorial extensions or population migrations, which opens the door to all kinds of ideological blinkers. Political conflicts between Caucasus countries can result in the urge to minimize the presence of ‘enemy languages’ in a disputed area or to exaggerate the implantation of one’s own language in larger territories than it actually is the case; this is perhaps understandable from a purely psychological point of view, but linguistics has nothing to do with psychology.

A final problem is the distinction between genetic and areal relationships. Both types of relationships have been advocated in the scholarly literature between Ancient Anatolia and Modern Caucasus. The first step in this direction was given by scholars who claimed for the unity of all Caucasian linguistic families (Kartvelian, Northwest Caucasian, Northeast Caucasian) — an assumption difficult to prove beyond any doubt. Even the assumption of a common origin of Northwest and Northeast Caucasian is to be regarded as controversial despite its crystallization in the *North Caucasian Etymological Dictionary* by Nikolayev & Starostin (1994). An extreme example was Nikolaï Marr (1864-1934) with his 'Japhetic theory', postulating a common origin for Caucasian taken as a whole, Semitic and Basque. More modestly, it was sometimes claimed that Hurrian and Urartian, two members of the Anatolian linguistic area, are related, in one way or another, to the Northeast Caucasian languages; this view was recently defended by Diakonoff & Starostin (1986). All of this is uncertain. By way of illustration, let us compare the numeral system in Ancient Anatolian and Modern Caucasian languages[24]:

	Hurrian	Urartian	Lezgian	Avar	Abkhaz	Georgian
1	*šukki,*	*šusi-ni*	*sa(d)*	*co*	*ak'ə́ aʒ°ə́*	*ert-i*
2	*šin(a)*	*šî-šə*?	*q'we(d)*	*k'i. go*	*j°ə́-ǯ'a*	*or-i*
3	*kig(a)*	?	*pud*	*łab. go*	*x-pa, x-j°ə́(-k')*	*sam-i*
4	*tumni*	?	*q'ud*	*unq'. go*	*pš'-ba, pš'-j°ə́(-k')*	*otx-i*
5	*nariy(a)*	?	*wad*	*šu. go*	*x°-ba, x°-j°ə́(-k')*	*xut-i*
6	*šeže*	?	*rugud*	*anł. go*	*f-ba, f-j°ə́(-k')*	*eksv-i*
7	*šindi*	?	*irid*	*antł. go*	*bəž'-bá, bəž-j°ə́(-k')*	*švid-i*
8	*kira/i*	?	*müžüd*	*mitł. go*	*aa-bá, aa-j°ə́(-k')*	*rva*
9	*tamri/a*	?	*k'üd*	*ič'. go*	*ž°-ba, ž°-j°ə́(-k')*	*cxra*
10	*eman*	?	*c'ud*	*anc'. go*	*ž°a-bá, ž°a-j°ə́(-k')*	*at-i*

At first glance, there is nothing common between the different sets of numerals. Such a comparison, however, does not really make a lot of sense, since it is based on a selection of individual languages and not on the intermediate proto-languages of each group, as it should be. As a result, all that could be done is to rely on superficial similarities, not on regular correspondences, which is definitely not the right way of practicing the comparative method. To illustrate the problems raised by such uncontrolled lexical comparisons, let us have a look at an extreme example, the reconstruction of the Hurrian numerals by Blažek (2010), who operates within the framework of a common North Caucasian linguistic unity and proposes the

[24] Sources: for Hurrian see Speiser (1940-1941:82), Wilhelm (2004:115) and Blažek (2010:118), for Lezgian see Haspelmath (1993:230), for Abkhaz see Chiribka (2003a:34), for Georgian see Hewitt (1995:29-30). See also van den Berg (2005:166). Note the distinction in Abkhaz between non-human and human sets of numerals.

following comparison between Hurrian and other languages, including Caucasian languages:

(1) Hurro-Urartian **šu-*, vs. North Caucasian **cHə̌*

(2) Hurrian *šin(a)*, vs. North Caucasian **šina-*. But compare also Eblaite (Semitic) *šina*

(3) Hurrian *ki-*, vs. Nakh' **qo-*, obl. Chechen *qaʔa-*, Bats *qay-*. Blažek adds Etruscan *ci*

(4) Ḫurrian *tumni* < **tamu (-) ni-*. A connection is proposed with Semitic **taṃānáy-* '8' (cf. Ugaritic *tmn*, Syriac *təmāne*)

(5) Hurrian *nariy(a)*, vs. North Caucasian **ʔrə̄n ƛ̲ E* '6' (if a compound **ʔrə̄n-* '5' + **ƛE_* from a verb **-ə̈ƛËw* 'to lie, to put, to lead', with the meaning 'six' = '(one) put upon five')

(6) Hurrian *šeže* loanword from Akkadian (*šešše*t)

(7) Hurrian *šindi* from **šin-* and **na-* '2+5'

(8) Hurrian *kira/i* from **ki-* and **nariy(a)* '3 + 5'

(9) Hurrian *tamri/a* from **tum-* (< **tamu-*?) and **nariy(a)* '4 + 5'

(10) Hurrian *eman*. Blažek compares Basque *hamar* '10' or, alternatively, speculates about a noun meaning 'hand' found in North Caucasian **mēɬwV* (Lak *ḳʷi-jama* 'handful', Akusha *meh* 'hollow of hand, handful', Udin *aIm* 'arm, wing', Abkhaz **ma* in *a-ma-cᵛá* 'finger', *a-ma-χʷár* 'arm') or **mHŏχi* (Tsezian **mɔχV* 'handful', Lezgian **χ:am* 'hand(ful), palm of the hand').

As pointed out by Blažek himself (2010:122), the Hurro-Urartian-Caucasian connection would be visible only for some of the Hurrian numerals; most numerals would have different etymologies either on an internal or on an external basis. It is clear, I believe, that broad spectrum etymologies of that sort are completely flawed by their overhasty reliance on uncontrolled linguistic material and by their lack of precise comparative methodology.

Just as Hurro-Urartian was sometimes connected with Northeast Caucasian, Hattic was sometimes linked to, or even considered an ancestor of, Northwest Caucasian. This position was defended by different scholars, e.g. Ardzinba (1974), Ivanov (1985) and before them by Mészáros (1934), but it is based on a small number of doubtful lexical convergences. The Hattic language is too little known to be amenable to any kind of etymological macro-comparison: we do not even have any reliable descriptive dictionary of the language[25]. Parallel prefixes were attributed to Hattic and to Northwest Caucasian, e.g. Hattic *a-* (demonstrative), vs. Abkhaz *a-* (article), but they are too trivial to have any value at all. One example often produced to support the Hattic-Northwest Caucasian connection is the name for 'God', Hattic

[25] See Simon (2015:212).

wa-šḫaw compared to Circassian (Cherkess) *uas'ho* 'God' (archaic), but it was shown that this equation is false: Hattic is a collective to *a-šḫab* and originally means 'thunder' (hence 'thunder god, god'), whereas Circassian *uas'ho* originally meant 'sky' and has a different prehistory[26]. Other equations proposed by Ivanov (1985) are the following[27]:

Hattic *ḫerta* 'to hide', vs. Ubykh *qarda* 'id.'

Hattic *kuwa* 'to catch', vs. Ubykh *q'°a* 'id.'

Hattic *ḫun* 'large', vs. Proto-Abkhaz **šx°a-*, **čx°a-* 'id.'

Hattic *šepšep* 'shoes', vs. Proto-Abkhaz **c':ā qa* 'id.' (in fact, *a-c°á* 'leather')

Hattic *bu-* 'to make', vs. Abkhaz *(a-)u-ra* 'id.'

Hattic *štib* 'door', vs. Abkhaz *a-šə* 'id.'

Hattic *tauwa$_a$ tupi* 'fear and horror', vs. Kabardian *štajudagəe* 'fear'

Hattic *izzi-* 'good', vs. Kabardian *fIy*, Adyghe *šIu* 'id.'

These comparisons are very uncertain, since they are not based on regular sound correspondences, but on superficial similarities. Moreover, some of the Hattic data used to produce them have been shown to be unreliable or even false. There is no clear evidence for any kind of cognacy between Hattic and Northwest Caucasian.

On the other hand, there have been attempts in the literature to connect Hattic with Kartvelian[28]. The first scholar who promoted this idea was Deeters (1963) on the basis of the comparison of two pluralizing prefixes of Hattic *le-* and *še-* with corresponding prefixes in Georgian (*sa-*) and Svan (*la-*, *le-*), but it was shown that these prefixes have different semantic values. Girbal (1986) and Gabeskiria (1998) supported the same assumption with a list of alleged lexical cognates[29]:

Hattic *tette* 'big', vs. Georgian *didi* 'id.'

Hattic *tuḫḫukuru* 'to see', vs. Georgian *q'ur* 'id.' Hattic *šama* 'to hear', vs. Proto-Kartvelian **sm-* 'id.' Hattic *tumail* 'rain', vs. Georgian *c'vima* 'id.'

Hattic *šawa$_a$t* 'apple tree', vs. Georgian *vašli* 'tree'

Hattic *karam* 'wine', vs. Georgian *kvevri* 'pithos in which wine ferments'

[26] Cf. Simon (2015:224).
[27] See the discussion by Simon (2015:228-229).
[28] See the discussion by Simon (2015:249sq.).
[29] Cf. Simon (2015:251-252).

As shown by Simon (2015), most of these comparisons are ill-founded, either on the Hattic side or on the Kartvelian side or on both of them. No evidence proves any genetic connection between Hattic and Kartvelian.

Apart from the question of genetic cognacy, linguistic contacts have been supposed by different scholars between the Anatolian and Caucasus linguistic areas. A first direction often taken in this debate is the investigation of loanword relationships between the two areas. It was claimed, for example, that the Armenian language possesses a fair number of loanwords from Hittite, Hattic or Hurro-Urartian. The first who postulated the existence of Hittite borrowings in Armenian was Austin (1942), soon contradicted by Kerns & Schwartz (1942); the same view was repeatedly advocated by John A.C. Greppin (e.g. 1980). Among the examples often produced in the literature are the following:

Armenian *targal* 'spoon' < Hittite *tarṷ-āli-* 'pestle'

Armenian *ołoł-* 'inundation' < Hittite *alalam(m)a-* 'roar (of a river)'

Armenian *hasteay* 'a kind of pastry' < Hittite *ḫaz(z)ita-* 'a kind of cake'

Armenian *brut* 'potter' < Hittite *purut-* 'clay'

Armenian *hazar* 'lettuce' < Hittite *ḫašuššara-* 'a garden vegetable'

Armenian *towp* 'case, box, chest, censer' < Hittite *tuppi-* 'ark, container'

The evidence was recently critically discussed by Simon (2013), who claimed for a limited number of Anatolian loanwords in Armenian, and only of Luwian provenance. Most of this evidence is uncertain. Phonetic similarities between Anatolian and Armenian were also pointed out, such as the preservation of the PIE second laryngeal as *h* both in Hittite (*ḫanna-* 'grandmother', *ḫuḫḫa-* 'grandfather') and in Armenian (*han* 'grandmother', *haw* 'grandfather'); but the status of initial *h-* in Armenian is disputed and certainly not unreservedly to be equated with Hittite *ḫ-*. The assumption of loan relationships between Hurro-Urartian and Armenian is more promising; it is often based on the assumption of a link of continuity between Urartian and Armenian, spoken in the same area. This idea was developed by Diakonoff (1985), who gives the following examples of Hurro-Urartian loanwords in Armenian:

Armenian *astem* 'to reveal one's ancestry' < Hurrian *ašte* 'wife' Armenian *caṙay* 'slave' < Hurrian *sarre* 'live booty, captives' Armenian *owłt* 'Bactrian camel' < Urartian *ulṭu*

Armenian *xnjor* 'apple(-tree)' < Hurrian *ḫinz-orə* 'apple'

Armenian *caṙ* 'tree' < Hurrian *sar-me* 'wood', Urartian *ṣârə* 'orchard'

Armenian *cov* 'sea' < Urartian *ṣûə* '(inland) sea'

Armenian *xarxarem* ‘I destroy’ < Urartian *ḫarḫar-* ‘to be destroyed’

Diakonoff also postulated loanwords in the reverse direction, from Armenian towards Urartian, which would be very surprising considering the early date of the Urartian evidence:

Urartian *Arṣibə*, name of a horse, presumably ‘Eagle’ < Armenian *arcowi* ‘eagle’ Urartian *burg-ana-* ‘column(?)’ < Armenian *burgn* ‘tower’ (< PIE **bʰr̥ĝʰ-*) Urartian *ulgušə* ‘health, life’ < Armenian *olǰ* ‘whole’

Urartian *me(i)* negative < Armenian *mi* prohibitive negative (< PIE *meh_1)

Some of the proposed lexical convergences might have further connections in Caucasian languages, for example[30]:

Armenian *art* ‘field’, vs. Hurrian *arde*, Urartian *ardi-ne* ‘town’, vs. Chechen *urd* ‘peasant’s share of land’, Ingush *urd* ‘district’

Armenian *kowt* ‘grain’, vs. Hurrian *kade* ‘barley’, vs. Lezghian *gad* ‘grain’, Lak *č: ati* ‘food made from flax seed’, Andi, Tindi *ĉ̣ĉ̣eṭu-* ‘(flax) seed’

Armenian *maxr*, dial. *marx* ‘resinous conifer, pine’, vs. Hurrian *maḫri* ‘fir, juniper’, vs. Chechen *max* ‘aspen’, Ingush *mixa* ‘aspen’, Avar *maxx* ‘birch’, Dargwa *maq* ‘birch’, Tabasaran *murx* ‘birch’, Budukh *märx* ‘birch’

Finally, there is the vexed question of the relation between Armenian and Hattic. The identification of the indigenous name of the Armenians, *Hayk ‘*, with the name of Hatti has been the subject of a very emotional debate and can hardly be regarded as broadly accepted. A handful of Hattic loanwords in Armenian were also reconstructed by several scholars, but their plausibility is not very high: one of them would be Armenian *kamowrǰ* ‘bridge’ related to Hattic *ḫamuru(wa)* ‘beam’, but the comparison is extremely weak, and one could prefer to connect the Armenian word with Greek γέφυρα *gépʰura* ‘bridge’ (which, to be honest, cannot be taken for granted either).

The best one could say about these comparisons is that there might be a grain of truth in some of them, but the problem is that we cannot assess their scope properly since we know almost nothing about the linguistic interactions between Ancient Anatolia and Armenian. The comparisons made between all these languages are most often completely uncritical, far away from the traditional comparative method, sometimes even from common sense. A crucial problem is that such comparisons are usually based on lexical material, which is the least suitable for this purpose, since shared lexemes between two languages can either reflect common inheritance (in terms of genetic affiliation) or loanword relationships (in terms of geographic and

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30 Examples from Greppin & Diakonoff (1991:724sq.).

cultural proximity). As a result, when we find between Hattic and Northwest Caucasian, for example, lexical convergences, we are not able to determine whether these convergences are due to the common origin of these languages or to linguistic contacts between two unrelated languages. Moreover, we are not even sure that linguistic contacts, if any, really took place between these two languages directly and not through the medium of a third, unknown language. In my own field of research, Indo-European linguistics, progress has only been made once attention has turned to the comparison of grammatical material.

A last question is whether there can be an organic link between the Anatolian and the Caucasus linguistic areas. In genetic linguistics, there have been many attempts at establishing distant forms of cognacy between clearly defined linguistic families, e.g. between Indo-European and Uralic (macro-families), with its share of exaggeration and uncertainty, but it seems even more difficult to follow a similar way of proceeding with linguistic areas and globally speaking there is no way of reconstructing macro-linguistic areas, unifying two clearly defined linguistic areas. The reason for this is probably that a linguistic area is a bundle of shared features which were formed at a particular time in history and at a particular location, due to a specific cultural environment, which precludes the existence of wide-ranging linguistic areas (macro-areas). What is striking in this case is that the features considered to be diagnostic for the establishment of the Anatolian and the Caucasus linguistic areas are completely different and there is no common set of features shared by the two linguistic areas. The only potentially shared peculiarities are ergativity and the existence of postpositions, but they are trivial in themselves and cannot provide evidence for a link between the Anatolian and the Caucasus linguistic areas. Even worse, there are in each one of the two linguistic areas features that are completely absent from the other one: for example, the category of evidentiality, which is widespread all over the Caucasus as well as in Modern Turkish, is not found at all in Ancient Anatolia. The conclusion is that there might have existed cultural interactions between Ancient Anatolia and Caucasus, resulting in linguistic proximities, but first we cannot link together the Anatolian and the Caucasus linguistic areas on the basis of shared structures and, second, given the current stage of knowledge, the existence of linguistic relationships between these two regions in terms of linguistic cognacy or linguistic contact cannot be proven beyond doubt. What should be done in the future is to establish as precisely as possible the linguistic prehistory of each of the subgroups attested in both regions, and this requires a strict application of the comparative method and a good dose of critical mind. Then we have to investigate all linguistic contacts really observable on historical grounds. For this, historical linguistics is not sufficient; it needs to be supported by other sciences such as archaeology and history. Only a cross-cutting approach based on all available evidence can bring a fresh perspective on the linguistic prehistory of

Ancient Anatolia and Caucasus.

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