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Response to Alexei Kassian's review of *The Indo-European Elements in Hurrian*

First, the authors would like to express their appreciation to Alexei Kassian for his efforts in reviewing their joint monograph *The Indo-European Elements in Hurrian*. In addition, the review is valuable for providing new lexical material, which can be harnessed to consolidate the initial thesis. However, the authors would also like to state that, in their opinion, the review is biased and definitely cannot be considered an objective assessment of their work. The bias comes from the fact that the reviewer supports a counter-position that clearly prejudices him against alternative proposals from the outset. The counter-position, which he states at the end of the review, is his belief (p. 205) that “it is very likely that HU is an extinct member of the Sino-Caucasian macrofamily.” The authors would very much like to see the evidence for this claim.

The present paper comprises two parts: (1) a direct response to Kassian's review and (2) a number of new elements supporting the original claims, especially lexical items.

1. The review

The original purpose of F&B's monograph can be summarized as follows: it provides a presentation of the Hurrian language, a discussion of the theories describing Hurrian phonology, a grammatical description of Hurrian with parallel comparison with Proto-Indo-European, a vocabulary of Hurrian, a list of potential cognates between Hurrian and Proto-Indo-European, and, finally, a number of considerations about the proto-language which preceded Hurrian and Proto-Indo-European. This is not even addressed by Kassian in his review.

On the whole, two points are correct: (1) the monograph does not deal with Urartian, the closest sister-language of Hurrian, when it may or should do so; (2) it does not refer to some recent works, to which we have not been lucky enough to gain access. For the rest, the review is egregious for its general tendency to avoid describing or discussing the real contents of the monograph, to focus on miscellaneous insignificant details, which seem to have little purpose other than to provide the reviewer with opportunities to insert the phrase “(more) correct” when asserting his own point of view, and to deal with his personal interpretations, and quite

often his interpretations of what is not actually stated. A typical case is (p. 199): “F&B do not articulate it explicitly, but they probably imply that Hurrian is a member of the Nostratic macrofamily and, within this macrofamily, Hurrian is closer to IE than, e.g., Proto-Uralic.” In other words, the review deals with what the authors “do not articulate explicitly” and what they “probably imply”, but, at the same time, it fails to mention that the authors thoroughly discuss and examine the issue of what is the most accurate phonology for Hurrian. But it would appear that this issue just does not exist for the reviewer. In the opinion of the authors, the review is so severely tendentious that it does not enable its readers to figure out what is actually written in the monograph. Even the parts of the work that systematically describe Hurrian and then compares it with Proto-Indo-European seem to have been a source of problems and discomfort to the reviewer.

Throughout the review, Kassian uses phrases such as “seems improbable” and “seems more correct”, without going into detail why. The authors have extensively consulted and cited the classic works, as well as several modern works, on Hurrian. In such cases, the reviewer needs to explain why something seems improbable or more correct, citing references to back up his statements. Otherwise, he is merely offering his own, unsupported interpretations. The reviewer is correct in pointing out a number of recent works that should have been consulted as well. Unfortunately some of these works are not easily accessible, and this situation, which the reviewer dismisses as “unjustified”, is at least justified by their practical inavailability in any of France’s libraries, the country where one of the authors resides.

Moreover, some of his criticisms do not hold up under close examination. For example, the claim that the plural marker is *-na* instead of *-nna* is simply wrong. Otherwise, how can we explain numerous cases like (sg.) *ebri*, (pl.) *ebri-nna*? Likewise, the reviewer makes the following observation concerning the Hurrian acc. sg. formant *-an* (p. 201): “... I have no idea how the author [sic] came by this enigmatic Hurrian case exponent.” Strange — Speiser devotes nine pages in his 1941 book *Introduction to Hurrian* to a discussion of this formant, and the monograph brings new elements to this unresolved issue that Speiser left open. True enough, in its latest stage of development, Hurrian clearly displays characteristics of an ergative-absolutive morphological structure, but it also has remnants of earlier stages of development, and these earlier stages are discussed in detail by the authors. Indeed, one of the primary goals of the book is to explore and elucidate what those earlier stages of development may have been like, and this important aspect of the book seems either to have been misunderstood or purposely ignored by the reviewer. The failure of the reviewer to grasp the full significance of this goal means that his interpretation of the views of the authors on several key issues actually misrepresents their true views and greatly diminishes the validity of his comments and criticisms. It can be added that the frequently encountered description of Hurrian as being ergative is more or less explicitly rooted in the unproved prejudice that Hurro-Urartian is a kind of para-Caucasic language, and, consequently, the grammar must be formatted so as to fit the ergative pattern, but the language does not naturally and obviously fit that procrustean mold.

In the main body of the review, Kassian takes issue with the methodologies used and the conclusions reached. The beginning of §3 deals with the criteria that substantiate genetic relationship. Two main types are described by the reviewer: (1) grammatical criteria and (2) lexical criteria. The reviewer favors the second type as the main conclusive argumentation. He then goes on to propose that a 50-item Hurrian wordlist compiled by him be used as the basis for comparison. This point raises several issues. First of all, nothing is to be gained by using controversial methodologies and arbitrary criteria as a means to judge the validity of competing proposals or to suggest alternatives. More effective is the use of proven methodolo-

gies such as the Comparative Method and Internal Reconstruction. Their efficacy has been shown over and over again for the past two centuries. The authors have endeavored throughout to adhere strictly to these universally-accepted, time-tested methodologies. The monograph under review provides a huge body of evidence according to these methodologies, which must be addressed. Next, the reviewer must be reminded that methodologies such as glottochronology / lexicostatistics (plus a so-called Stability Index) in establishing genetic relationship remain controversial to say the least. Swadesh, himself, discusses the use and the limitations of glottochronology on pp. 271–284 of his 1971 book *The Origin and Diversification of Language*. The inconclusive results that could be achieved through this methodology have long ago led the majority of historical linguists to abandon glottochronology / lexicostatistics as a meaningful, let alone conclusive, research tool. Recent attempts to refine the methodology have also met with little acceptance. In some cases, the criticism has been quite harsh. Finally, concerning the 50-item wordlist which the reviewer arbitrarily sets up as a standard, he claims (p. 204) that “[o]nly six items on this list are etymologized by F&B.” Were the same test applied to, say, English and Bengali, the outcome would be even worse, and, yet, both are related Indo-European languages. He further adds: “Not a single entry on the Hurrian 50-item wordlist has a direct semantic match with the corresponding entry for Proto-IE. Therefore, I conclude that the Hurrian-IE root comparison also fails.” Not only is this a misuse of glottochronology / lexicostatistics, and not only is this wordlist a sort of arbitrary selection, which cannot be considered legitimate from a theoretical point of view, but the major problem from a practical point of view is that the claim made by the reviewer that not a single entry matches is nothing short of outrageously false as will be shown in the next part of this article.

The statement by the reviewer (p. 201) that “[a]n enigmatic ‘Hittite enclitic particle *-t/da*’ ‘towards’ is quoted, which does not exist” is curious. It is found in: Hittite *anda* ‘in, into; within; in addition’, *andan* ‘in, within, inside’; Cuneiform Luwian *anta*, *anda* ‘in, into’, *andan* ‘inside’; Hieroglyphic Luwian *anta* ‘in, within, into’, *antan* ‘into’; Lycian *ñte* ‘inside’. These formations have exact equivalents in Old Latin *endo* (*en+do*) ‘in, into’, Greek *ἐνδον* ‘in, within’, and Old English *intō* ‘into’. Perhaps it is better called an “allative particle”.

2. The Basic Vocabulary of Hurrian as Surveyed by the 50-Item Wordlist

As stated above, we do not accept the theoretical legitimacy of such a wordlist, but out of fairness to the reviewer, we will show that his 50-item list actually supports the claim that PIE and Hurrian are related.

1. (SI=38) Hurrian *šalmi* ‘ashes’. A clear cognate of PIE **sal-* ‘gray’: Old Ind. *sāra*, *sāla-* ‘gray’; OE *sōl* ‘dirty, dark’; Dutch *saul* id.; Old Ir. *sal*, *sa(i)le* f. ‘dirt’, *salach* ‘dirty’; Old Breton *haloc*; Welsh *halog* id. PIE **sal-uo-*: OHG *salo* ‘murky, dirty gray’; OE *salu* id. The original may be a verb **sel-* ‘to burn’ — cf. Hurrian *šal-mulušt-* ‘to burn’. The derivational suffix *-mi* is well-attested: cf. Hurrian *āl(a)mi* ‘oath’, *halmi* ‘song’, *ulmi* ‘weapon’, etc. Cf. Hurrian *šulli* ‘charcoal’.
2. (SI=33) Hurrian *eradi* ‘bird’. A clear cognate of PIE **H₁er-* ‘(large) bird’: Gk. *ὄρνις*, *-ἴθος*, Dor. *-ἴχος* ‘bird; rooster, cock, hen’, *ὄρνειον* ‘bird’; Old Ir. *irar* (Middle Ir. also *ilar*); Welsh *eryr*; Middle Bret. *erer*; Goth. *ara*; Old Ice. *ari*, *qrn* (< **arnuz*); OE *earn*, OHG *aro*, *aru* ‘eagle’; MHG. *adelar* ‘noble eagle’; NHG *Adler*; Proto-Gmc. **aran-*; Lith. *erēlis*, (dial.) *arēlis*; Old Pruss. *arelie*; Latv. *ērglis* (< **ērdlis*) ‘eagle’; Lith. *ėras*, *āras* ‘eagle’; OCS

- orǝlb* (**arila-*) ‘eagle’; Russ. *orël*, (gen.) *orlá*. Hurrian *eradi* may be dissimilated from **er-ardi*, with the collective suffix *-ardi*.
3. (SI=48) Hurrian *timere* ‘black’. A clear cognate of PIE **dhem-* ‘dark’: Old Ice. *dimmr* ‘dim, dark’, *dimma* ‘to make dark, to darken’; OE *dim* ‘dark’; OHG *timber* ‘dark, gloomy’, (*be*)*timberēn* ‘to become dark’, *petimberen* ‘to darken’, *timber-* ‘darkness’; Old Ir. *deim* ‘black, dark’. NB: the <i> of *timere* must have originally been **e* (otherwise the initial #*t-* should be spirant #š-).
 4. (SI=20) Hurrian *zurgi* ‘blood’. A clear cognate of PIE *H₁es-* ‘blood’: Old Ind. *ásṛk*, *ásṛt*, (gen.) *asnáḥ* ‘blood’; Arm. *ariun* ‘blood’ (<**esṛ-*); Gk. (poet.) *ἔαο*, *εἶαο* (Hes. *ῆαο*) ‘blood’; Old Lat. *aser* (*asser*), *assy* ‘blood’, *assarātum* ‘drink from the mixed wine and blood’; Latv. *asins* ‘blood’ (<**esen*), (pl.) *asinis*; Toch. A *ysār*; Hitt. *e-eš-ḫar*, (gen.) *ešḫanaš*. Old Ind. *ásṛk* and Hurrian *zurgi* have the same suffix *-rk(w)-*. The initial #*z-* of Hurrian is probably a reflex of the sequence **Hs-*. This new etymology is an improvement of our initial proposal in Fournet—Bomhard (2010:143).
 5. (SI=34) ‘bone’ unknown.
 6. (SI=13) Hurrian *ull-ul-* ‘to die’; *ull-* ‘to destroy’, *ulmi* ‘weapon’. A clear cognate of PIE **wel-H₂-* ‘to strike, to wound’: Hittite *wa-al-aḫ-zi*, *wa-al-ḫa-an-na-i* ‘to strike, to attack’; Luwian *u(wa)lant-* ‘death’, *u(wa)lantal(li)-* ‘mortal’; Hieroglyphic Luwian *wal(a)-* ‘death’, *walatali-* ‘mortal’; Latin *vulnus* (*volnus*) ‘wound’, *vulnerō* (*volnerō*) ‘to wound, to injure’; Old Ir. *fuil* ‘blood’; Welsh *gweli* ‘wound’; Old Ice. *valr* ‘the slain’; OE *wæl* ‘slaughter, carnage, field of battle’, *wōl* ‘pestilence, mortality, disease’; OS *wōlian* ‘to kill, to slaughter’, *wal* ‘battlefield’; OHG *wal* ‘battlefield’, *wuol* ‘defeat, ruin’; Lith. *vėli* ‘the soul of a dead person, ghost’, *vėlnias* ‘devil’, *velys* ‘death’; Toch. A *wäl-*, *wal-* ‘to die’, B *wäl-* ‘to strike, to break’.
 7. (SI=16) Hurrian *erbi*, *erwi* ‘dog’. This looks like a loanword of Indo-Iranian origin: Skt. *lopāśa* ‘fox, jackal’; Av. *urupi* ‘a kind of dog’, etc. < PIE **wlp*. Cf. Uralic **repä* ‘fox’, most probably a loanword from the same source as well. We originally suggested in Fournet—Bomhard (2010: 34) to segment *er-bi* with a suffix *-bh-*, but this does not seem the most adequate approach for this word.
 8. (SI=15) ‘to drink’ unknown.
 9. (SI=24) Hurrian *šib-* ‘dry’, attested in *šiba* ‘dried up, dried out’. A possible cognate of PIE **sei-b-* ‘to flow, to drip’: OE *sīpian*; MLG *sīpen* ‘drip, trickle’; MHG *sīfen* (st. V.) id.; Swe. (dial.) *sipa* ‘slow flow, seep, drip’; MLG *sīp* ‘brook’. Most probably a suffixal variant of **seik^w-*. The apparently paradoxical semantic derivation ‘to flow’ > ‘dry’ is attested in Latin *siccus* or Av. *hiku* ‘dry’ < **seik^w-* ‘to flow’ as well.
 10. (SI=32) Hurrian *nui* ‘ear’. A possible cognate of PIE **neu-* attested as **neus-* and **neuks-*: Goth. *bi-niuhsjan* ‘to spy out’; Old Ice. *nýsa* ‘to pry, to peer’, *njósna* ‘spying, scouting, looking out’, *njósna* ‘to spy, to seek, to find out’; OE *nēosan*, *nēosian* ‘to investigate, to inspect’; OS *niusian*, *niusōn* ‘to investigate’; OHG *niusen* ‘to try, to probe, to discern’; Russ. *njúxat’* ‘to smell’. This tentative etymology would suggest that the original meaning of **neu-* was ‘to perceive’, hence ‘to see, to hear’.
 11. (SI=25) Hurrian *ul-* ‘to eat’. A clear cognate of PIE **H₂el-* ‘to nourish’: Lat. *alō*, *-ere* ‘to nourish, to support, to rear, to feed, to bring up’, *alimentum* ‘food, nourishment’; Osc. *altinúm* ‘food, provisions, aliment’; Old Ir. *alim* ‘I am nourishing’, *altram* ‘food’; Old Ice. *ala* ‘to nourish, to produce’; Gk. *ἄν-αλτος* ‘insatiable, gluttonous’.
 12. (SI=47) ‘egg’ unknown.
 13. (SI=4) Hurrian *ši* ‘eye’. A clear cognate of PIE **dheiH-* ‘to see’: Old Ind. *ádīdhēt* ‘he looked’; Av. *dā(y)-* ‘to see’, *daēman-* (n.) ‘eye, eyeball, look’; Gk. *σῆμα*, Dor. *σᾶμα*

- 'mark, token, sign' (< **dhiā-mṇ*). Normally, PIE **dh-* corresponds to Hurrian *t-* word-initially, but several potential cognates suggest that this phoneme #*t-* evolved into *š-* when followed by a closed vowel **i* or **u*. This sound law is supported by #13 **dhiH-* > *ši* 'eye' and #46 **dwini* > *šini* 'two', and more dubiously by #21 **duk-* (anomic variant of **deik-* 'finger') > *šukku* 'one'. The apparent exceptions like *tuw-* 'clean' or *tuwal-* 'to strike' result from assimilated **tew-* > *tuw-*. This assimilation does not happen in *tiwe* 'word' because there was a laryngeal **dheH₁-w-*. Other words with graphic *i* like *timere*, etc. may just reflect the unreliability of cuneiform to make a clear distinction between **e* and **i*. Other possible examples are *šeri* 'day' < **diH-r-* (cf. Eng. *time*, *tide*), *šešwi* 'kid' < **dhwes-* (cf. Albanian *dash* 'ram, lamb'; Gmc. **tius* 'beast' and, possibly, Lat. *bēstia*) and *šiduri* 'young woman' < **dhiH₁-* (cf. Latin *filia*). In addition, it can be noted that the pronoun 'you (Pl.)' *šši/ššu* can originate from **t-* if this sound law is accepted.
14. (SI=7) Hurrian *tari* 'fire'. A possible cognate of PIE **ters-* 'dry': Lat. *torreō* 'to burn, to dry, to roast'. In that case, the meaning 'dry' is derived from that of 'fire'. Cf. Hurrian *tarite* 'cooking-pot'.
 15. (S=43) Hurrian *uri* (variant *ugri*) 'foot'. A possible cognate of PIE **H₂er-* 'to assemble' → 'joint': Gk. ἄρ-θρον 'limb, member, joint (wrist, ankle)'; Lat. *artus*, *-ūs* 'the joints; (poet.) limbs'; Old Ind. *īrmá-h* 'arm, shoulder'; Av. *arəma-* 'arm'; Osset. *ärm* 'cupped hand', *ālm-ārīn*, *ärm-ārīn* 'elbow'; Lat. *armus* 'shoulder' or 'shoulder-blade'; Old Pruss. *irno* (f.) 'arm'.
 16. (SI=27) 'hair' unknown.
 17. (SI=11) Hurrian *šun-i* (variant *summi*) 'hand'. No clear match. The connection with PIE **dhen-* '(flat) hand': Gk. θένναρ n. 'palm, sole'; OHG (m.) *tenar*, (f.) *tenra* (< **denar-*); MHG (m.) *tener* 'flat hand' is difficult as there is no trace of **u* or **w*. Other words show that Hurrian *u* reflecting zero-grade does not cause the fricativization of dental stops. A better connection is Gmc. **θūma* 'thumb' < **teu-*, but Germanic is isolated. Cf. Sumerian SU 'hand'. Hence, possibly a loanword.
 18. (SI=49) Hurrian *pahi* 'head'. No clear match. A possibility is PIE **per-* 'front, first' with a simplification of the initial cluster **prah-* > *pah-*.
 19. (SI=45) Hurrian *haš-* 'to hear'. No clear match. A possibility is Latin *sentio* 'to feel, to perceive', if the word reflects **Hs-ent-* (cf. **Hd-ent-* 'tooth').
 20. (SI=14) Hurrian *tiša* 'heart'. No match. The initial sequence #*ti-* and the unusual final vowel *a* instead of *i* suggest that this item is a loanword of unknown origin. Sumerian ŠA(G) 'heart' is a possible origin, cf. Hatti *šagi* 'heart'. Note that this supposedly stable word is a loanword.
 21. (SI=44) 'horn' unknown.
 22. (SI=3) Hurrian *ište* (abs.), *išaš* (erg.) 'I, me, P1Sg'. We have proposed to analyze Hurrian *iš-t-* as being a suffixed form of **H₁e-*, which is evidenced in PIE **H₁e-ĝ(h)-oH* 'I' with a different suffix. This base **H₁e-* > Hurrian *i-* 'P1Sg' is also evidenced in 'we' ('P1Pl') *šattilla* (abs.), which can be analyzed as being *šatt-* 'together' plus *-i-lla*, a pluralization of 'P1Sg.' following Speiser (1943: 28 and 68). The comparanda proposed by the reviewer: North Caucasian **zō*, (erg.) **?ez(V)*, (gen.) **?iz(V)*, (obl.) **zā-*, Yenisseean **a₃*, Burushaski **a₃* 'P1Sg', do not refute the connection between PIE and Hurrian. In addition, Cf. Hebrew 'an-ī 'P1Sg' and Akkadian *-ni*, Ugaritic *-n*, Hebrew *-nī*, Syriac *-n*, Arabic *-nī*, Geez *-nī*, etc. 'P1Pl'.
 23. (SI=42) (A) Hurrian *šur-* 'to kill (a small animal)'. A possible cognate of PIE **ser(-gh)-*: Hitt. (3rd sg. pres.) *šar-ra-i* 'to separate, to divide, to break'; Ice. *sarga* 'to hack (with a blunt instrument)'; Swe. *sarga* 'to wound, to graze, to tear'; Russ. *sražát'*, *sraz'it'* 'to

- slay, to strike down, to smite'. (B) Hurrian *had-* 'to kill'. A possible cognate of PIE **H₂ed-*: Armenian *hatanem* 'to cut', *hat* 'piece, cut, slice'; Hitt. (P3 sg. pres.) *ḫa-at-zi*, *ḫa-at-ta-i*, *ḫa-at-ta-a-i*, *ḫa-ad-da-i*; *ḫa-az-zi-zi*, *ḫa-az-zi-az-zi* 'to make a hole (in), to pierce, to prick, to stab, to slash, to perforate, to penetrate, to stick (as a means of killing), to hit (a target), to strike (especially a musical instrument), to engrave (a tablet)', (nom.-acc.sg.) *ḫa-at-ta-ra-a[n]* 'prick,awl', (P1 sg. pres.) *ḫa-at-ta-ra-a-mi* 'to prick, to incise, to engrave, to inscribe', (nom.-acc. sg.) *ḫa-at-tal-la-an* 'club, mace'. (C) Hurrian *ub-* 'to kill, slaughter (a big animal)'. A possible cognate of Germanic **wepnam* 'weapon'.
24. (SI=41) 'leaf' unknown.
 25. (SI=17) Hurrian *aphe* 'louse'. No match. It is unclear what kind of connection may exist between *aphe* 'louse' and *pahi* 'head'. Cf. Sumerian EH 'insect, head louse'. The reviewer suggests a connection with Caucasian **amkV* 'some kind of insect or vermin' (p. 205). But 'louse' is either NC **nēmz-* or **qān?V*. None of the Caucasian languages supports the claim that **amkV* ever was 'louse'. According to the reviewer, "the comparison seems very likely" [sic], even though it matches neither semantically nor phonetically. It can be noted that this word may have a more general meaning: 'vermin' and translates Akkadian *kalmatu*.
 26. (SI=46) Hurrian *uzi* 'meat'. It is possible that this word is linked with Hurrian *zurgi* 'blood' and may thus represent another cognate of PIE **H₁es-* 'blood'. But it can be noted that Sumerian UZU means 'flesh'. Hence, probably a loanword.
 27. (SI=18) Hurrian *Kušuh* 'Moon-god'. This theonym cannot be taken to mean 'moon' with certainty. The writing of *Kušuh* in Ugaritic is unstable, [kdḡ] and [kzḡ], which can be interpreted as a sign that this name may be a loanword; cf. the multiple writings of *kešhi* 'throne' (< Sumerian) in Ugaritic: initial [k-], [g-], [ḡ-]. A possibility exists with PIE **kwen-* 'holy': **kwn-sH-* > *Kuš(u)h-* 'the one who makes holy (?)'. Cf. Gmc. **hunslam* > Eng. *housel*.
 28. (SI=31) Hurrian *baši* 'mouth'. The initial is proved by alternations between *paši* and *waši* (cf. Laroche 1980:197 & 295). A clear cognate of PIE **bheH₂-* 'to speak'.
 29. (SI=29) 'nail' unknown.
 30. (SI=10) 'name' unknown. Note that Hurrian *tiwe* < **dheH₁-* 'to say' means 'word'.
 31. (SI=23) Hurrian *šuhe* 'new'. No match.
 32. (SI=50) Hurrian *hurri* 'night' (?). A clear cognate of **H₂ew-* 'to spend the night, sleep' (IEW 72): Gk. *ιάύω* 'to sleep', *ἄωρος* (Sappho), *ῶρος* (Kallimachos) = *ύπνος* 'sleep'; Armenian *aganim* 'to spend the night', *aut* 'overnight rest'.
 33. (SI=29) Hurrian *punhi* 'nose'. A clear cognate of PIE **pneu-* 'to breathe': Gk. *πνέω* (*πνεύσαι*) 'to blow, to pant, to gasp, to breathe, to smell'; Gmc. **fniw-* in OE *fnēosan* 'to sneeze', MHG *pfnūsen* 'to pant, to sniff, to snort, to sneeze'; variant form Gmc. **fnēs-*, **fnōs-*, **fnas-* in OE *gefnesan* 'to sneeze', MHG *pfnāsen* 'to pant, to sniff, to snort', *pfnāst* m. 'snort', OHG *fnāsteōn* 'to pant', Old Ice. *fnōsa* 'to pant, to sniff, to snort'.
 34. (SI=30) (A) Hurrian *-w-* / *-bur-* 'not'. A possible cognate of PIE **bhe(H)* 'without': Old Ind. *bahīḥ* (m. abl.) 'outdoors, outward, outside from'; Old Pruss. *bhe* 'without' (preposition m. acc.); Lith. *bè* 'without' (preposition m. gen., and nominal prefix); Latv. *bez* 'without' (preposition m. gen., and nominal prefix); OCS *bez* etc. (dial. also *be*) 'without' (preposition m. gen., and nominal prefix). (B) Hurrian *-kk-* 'not'. This form is not attested in Urartian. It may originate in a reinforcement of *-w-/b-* by some particle.
 35. (SI=21) Hurrian *šukku* 'one'. Assuming another vowel than *-i-* in **d(e)ik-* 'finger' or *-a-* in Greek *δάκτυλος*, then *šukku* can be accounted for as being < **duk-*. Note that Gmc. 'toe' is from **doikūā-*. Another instance of **oi* > **u* that supports the development of

- *doiku-* into **dukku* > *šukku* is *šuhni* ‘wall’ < **dhoigh-* ‘to knead or paste clay’ (IEW 244). A possible cognate.
36. (SI=39) Hurrian *išena* ‘rain’. No clear match. A connection with PIE **H₁eis-* ‘ice, frost’ is interesting, assuming some semantic shift. The final *-a* is nevertheless suspect. Cf. Akkadian *zunnu* ‘rain’ and *zanānu* ‘to rain, fall as due’. A probable loanword. Hurrian seems to reflect a feminine word in *-at(u)*.
 37. (SI=36) Hurrian *hiuri* ‘smoke’. No clear match. A connection with PIE **H₁eus-* ‘to burn’ is nevertheless possible if final *-s-* is dealt with as a suffix. In addition note that Hurrian *hummi* ‘hearth, altar’ can be another derivative of the same root.
 38. (SI=40) ‘star’ unknown.
 39. (SI=9) ‘stone’ unknown.
 40. (SI=35) Hurrian *Šimigi* ‘Sun-god’. As with *Kušuh* ‘Moon-god’, this theonym cannot be considered to mean ‘sun’. This word looks somewhat like a Semitic loanword — cf. Akk. *šamaš* ‘sun’. Another possibility would be PIE **dyew-magh-i* > **Ši-migi* ‘Master of daylight’, a variant of **dyew-pH₂ter*. The assimilation of **-a-* to *-i-* or *-e-* is supported by graphies like *ᵈŠi-me-gi*. A possible cognate.
 41. (SI=26) ‘tail’ unknown.
 42. (SI=5) Hurrian *-w-* / *-b* ‘P2Sg, thou’. A clear cognate of PIE **t-ū* ‘P2Sg, thou’. What Hurrian shows is that PIE **t-ū* is to be segmented into **t-*, represented by Hurrian *-šš-* ‘P2Pl, you’ (with regular spirantization because of pronominal endings *-i*, *-u*) and **-ū* ‘P2Sg, thou’. Cf. PIE (gen.) **tewe*, (dat.) **toi*, **tebhi*, (acc.) **te*. The alternation evidenced in the Hurrian graphics is reflected in the Indo-European forms as well. As is the case for P1Sg, the North Caucasian forms **uō* ‘thou’ (the direct stem); Yenisseean **ʔaw* (*/*ʔu*) ‘thou’; Burushaski **u-n* ‘thou’ do not refute the connection between Hurrian and PIE.
 43. (SI=8) Hurrian *irde* ‘tongue’. A possible cognate of PIE **HreH-dh-* ‘to articulate, to speak’: Goth. *raþjō* ‘number, bill, account’; OS *rethia* ‘account’; OHG *radja*, *redea* ‘account, conversation, story’; Old Fris. *birethia* ‘to accuse’; OS *rethiōn*; OHG *red(i)ōn* ‘to talk’. This semantic change is parallel to **bheH₂-(s)* > *baši* ‘mouth’.
 44. (SI=22) Hurrian *šini* ‘tooth’. This word cannot be derived from PIE **Hd-(e)nt-*. It looks like a Semitic loanword — cf. Akkadian *šinnu* ‘tooth’. Probably a loanword.
 45. (SI=37) Hurrian *tali* ‘tree’. A clear cognate of PIE **dhal-* ‘to bloom; to be leafy, lush’: Arm. *dalar* ‘green, fresh’; Gk. *θάλλω* ‘to bloom, to abound, to be luxuriant (of fruit-trees)’, *θαλερός* ‘fresh, blooming’, *θαλλός* ‘a young shoot, a young branch’; Welsh *dail* ‘foliage’; Old Corn. *delen* ‘leaf’.
 46. (SI=2) Hurrian *šini* ‘two’. A clear cognate of PIE **dw-ol-i* ‘two’: Lat. *bīnī* ‘every two’ (distributive) and ‘two’ (collective) from **d_{uis}-no-*; Gmc. **twiz-na-* in OHG *zwināl*, *zwenel* ‘born together, twin-born, twin-’, (m.) *zwiniling*; MHG *zwinilīn* n. ‘twin’; **twai-na-* in OS *twēne* ‘two’; OHG *zwēne* ‘two’, *zwein-zug*; OS *twēn-tig*; OE *twēn-tig* ‘20’.
 47. (SI=28) Hurrian *šīwe*, *šīye* ‘water’. A clear cognate of PIE **seu-*: Gk. *ῥεῖ* ‘to rain’, *ῥετός* ‘rain’; Toch. B *su-* ‘to rain’, *swese* ‘rain’; Old Pruss. *soye* ‘rain’; Old Ice. *söggr* ‘dank, wet’; OE *sēaw* ‘juice, liquid’.
 48. (SI=1) Hurrian *šatt-i-lla* [abs.], *šie(=š=)* [erg.], *ša(=š=)* [obl.] ‘P1Pl, we’. This form is related to **H₁e-s-* ‘P1Sg’ or maybe to PIE **_{ns-}* ‘P1Pl’, but there is no other case to identify what initial **_{ns-}* may become in Hurrian (cf. *Kušuh*).
 49. (SI=12) ‘what?’ unknown. Note that Hurrian *iya* ‘which’ can be compared to PIE **yo-*.
 50. (SI=6) Hurrian *abi*, *awi* ‘who?’. A possible cognate of PIE **H₂ew-* ‘that, other, etc.’ (IEW 73–75): Gothic *-u* ‘Fragepartikel’. The semantic field attested in IE languages indicates that the original meaning must have been of deictic and pronominal nature.

The different items can be assigned to the following categories:

- clear cognates: 2, 3, 4, 6, 11, 13, 22, 28, 32, 33, 42, 43, 45, 46, 47, 48;
- possible cognates: 1, 9, 10, 14, 15, 23, 34, 35, 50;
- unclear status: 18, 19, 25, 31, 37;
- unknown words: 5, 8, 12, 16, 21, 24, 27, 29, 30, 38, 39, 40, 41, 49;
- clear or probable loanwords: 7, 17, 20, 26, 36, 44.

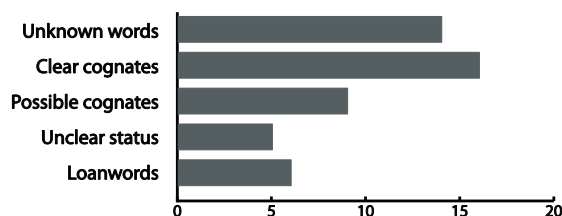


Fig. 1. Situation of Hurrian according to the 50-item word list of the reviewer

According to the reviewer, Greek and Sanskrit score 23 matches on 50, but Proto-Uralic and PIE score between between 12 to 14 matches. This can be compared with Hurrian scoring 16 clear cognates and 25 clear and possible cognates on an incomplete list of only 35 items. Even though the authors do not endorse the method followed or proposed by the reviewer, it is glaringly obvious that it actually supports their theory and completely refutes his own claim that “it should be clear to everybody who is familiar with Hurro-Urartian and IE languages that these two families are genetically unrelated.” (p. 204)

Though the authors reject nearly all of the conclusions reached and criticisms articulated in the review, they are grateful for the reviewer’s time and additional data. They also share his concerns that Hurro-Urartian reconstruction should be carried out and that an up-to-date thesaurus should be made available for further research on these languages.

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More about the theoretical foundations of lexicostatistics

0. Since A. Fournet and A. R. Bomhard have presented a reply to my recent unfavorable review of their monograph *The Indo-European Elements in Hurrian* (see Fournet & Bomhard 2010 and Kassian 2010) that has been accepted by the *JLR* editorial board, I am obliged to compile some kind of a “reply to reply”. My text will, however, be shorter than the one by F&B, because this time I will not be touching upon specific Hurrian data and instead confine myself to methodological matters only.

1. As I have previously pointed out (1010: 200 ff.), any pair of languages which are conventionally assumed to be genetically related at a reasonable time depth possesses a significant number of etymological matches with coinciding meanings between the basic vocabularies of these languages, most importantly, between *core* vocabulary, summarized as the 50-item wordlist. One is free to accept lexicostatistics as a working method (like, for instance, the present author) or reject “the theoretical legitimacy of such a wordlist” (as do,