

## Indo-European laryngeals in Afroasiatic perspective<sup>1</sup>

The paper represents an attempt to verify the reconstruction of laryngeal consonants in Proto-Indo-European through external comparison with Afro-Asiatic languages. Working from a standpoint of genetic relatedness between Indo-European and Afro-Asiatic, the author has assembled a set of 80 binary comparisons that contain laryngeals both in their Indo-European and Afro-Asiatic constituents. Analysis of the evidence leads to the conclusion that (a) Indo-European  $*H_1$  generally corresponds to Afro-Asiatic  $*ʕ$ ; (b) Indo-European  $*H_2$  and  $*H_3$  correspond to all the other Afro-Asiatic laryngeals, with the much rarer  $*H_3$  possibly representing just a positional variant of  $*H_2$ .

*Keywords:* Indo-European, Afro-Asiatic, Nostratic, long-range comparison, laryngeal theory.

*Dedicated to the memory of Hermann Møller (1850–1923)*

The authorship of the Laryngeal Theory has been ascribed to Ferdinand de Saussure, who presented his ideas in the book *Mémoires sur le système primitif des voyelles dans les langues indo-européennes*. The monograph was published in Leipzig 1879, when he was 22, and a year before the end of his study at Leipzig University. He proposed that the traditionally reconstructed  $*ē$  and  $*ā$  should represent a sequence  $*eA$  (but without any explanation of the conditions differentiating between  $*ē$  and  $*ā$ ) and that the long vowel  $*ō$  had to reflect  $*eQ$  (sic).

Already in the following year the Danish scholar Hermann Møller (in his review of the study on Germanic conjugation published in *Englische Studien* III, 1879[80], 151), introduced the third *coefficient sonantique* — the term used for the first time by de Saussure — namely  $*E$ , causing  $*eE \rightarrow *ē$ , as opposed to  $*eA \rightarrow *ā$ . He characterized these three *coefficients* as ***konsonantische Kehlkopflaute***. A year later (1880) Møller wrote even more concretely: *die fragliche Laute seien “wahrscheinlich Gutturale von der Art der semitischen” gewesen*. Møller did not abide by these words alone. In 1906 he published the study *Semitisch und Indogermanisch*, I, following it up with the comparative dictionary *Indoeuropæisk-semitisk sammenlignende glossarium* (Kjøbenhavn: Schultz 1909), its German version *Vergleichendes indogermanisch-semitisches Wörterbuch* (Göttingen 1911), and, finally, the study *Die semitisch-vorindogermanischen laryngalen Konsonanten* (København: Høst & Søn 1917).

Thus it was Møller who first formulated the idea of “trilaryngealism” for the early Indo-European protolanguage. He also tried to identify the Semitic laryngeals with their hypothetical counterparts in Indo-European (Møller 1917, 3–4):

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de Saussure <i>coefficients</i>	Semitic counterparts
<i>E</i>	*ʔ (aleph)
<i>A</i>	*ḥ (& *ʔ)
<i>Q</i>	*ʕ (ayin)

Pedersen (1905) preferred to identify the *coefficient* \**A* with a  $\gamma$  or *ʕ*-type sound.

The ideas of de Saussure and Møller were accepted and developed by Albert Cuny, Louis Hjelmslev and others.

In recent times two more attempts to identify the Indo-European laryngeals with specific sounds have been made, both on the basis of internal reconstruction and some typological features:

Rasmussen (1983)	$H_1 = h$	$H_2 = x$	$H_3 = \gamma^w$
Beekes (1995, 126)	$H_1 = ʔ$	$H_2 = \xi$	$H_3 = \xi^w$

In the 1960s a seriously new approach was presented by the founders of the so-called Moscow Nostratic school, Vladislav M. Illič-Svityč (1934–1966) and Aaron Dolgopolsky (1930–; since 1975, residing in Israel). In contrast to others, they held an opposite point of view: rather than thinking of laryngeals as responsible for “coloring” the vowels, they proposed that it was the vowels of the Nostratic protolanguage that were primary and that they later influenced the quality of the IE laryngeals. This view can be summarized as follows:

IE laryngeals after Illič-Svityč	standard symbols	Nostratic vowels
* <i>H</i>	* <i>H</i> <sub>2</sub>	* <i>a</i>
* <i>Ĥ</i>	* <i>H</i> <sub>1</sub>	* <i>ä</i> , * <i>e</i> , * <i>i</i> , ?* <i>ü</i>
* <i>H</i> <sup>w</sup>	* <i>H</i> <sub>3</sub>	* <i>o</i> , ?* <i>ü</i>

This scenario is in agreement with the interpretation of the system of velars, proposed by the same scholars — the coloring of the velars reflects the primary Nostratic vowels that originally followed these velars:

IE velars	Nostratic vowels
* <i>k</i> / * <i>g</i> / * <i>g</i> <sup>h</sup>	* <i>a</i>
* <i>ĥ</i> / * <i>ĝ</i> / * <i>ĝ</i> <sup>h</sup>	* <i>ä</i> , * <i>e</i> , * <i>i</i> , ?* <i>ü</i>
* <i>k</i> <sup>w</sup> / * <i>g</i> <sup>w</sup> / * <i>g</i> <sup>wh</sup>	* <i>o</i> , ?* <i>ü</i>

This idea, strictly speaking, implies only one laryngeal in the Indo-European protolanguage, colored by the old vowels before their restructuring during the introduction of apophony. But the actual picture is more complex. Already in the mid-1920s three scholars, Kellog (1925), Kuryłowicz (1927) and Cuny (1927), identified de Saussure’s virtual *coefficients* with an actual sound discovered in Hittite, namely *ḥ*. The same reflex was recognized in two other languages of Asia Minor in the 2<sup>nd</sup> mill. B.C., recorded in Akkadian cuneiform: Palaic and Cuneiform Luwian. The correspondence in Hieroglyphic Luwian was *h*, and in the Ana-

tolian languages in the 1<sup>st</sup> mill. B.C. — *k/q/γ/χ*, written with alphabetic symbols of Greek origin. But, apart from these consonantal reflexes of the laryngeals that are particularly well preserved in the initial position, in the same position we occasionally find zero reflexes as well. The easiest solution is that this double reflexation was caused by at least two different laryngeals.

At the present time it is possible to define four main ‘Nostratic’ schools:

(1) ‘Old Moscow’ — represented by V. Illič-Svityč, early work by A. Dolgopolsky, V. Dybo, E. Helimski.

(2) ‘Young Moscow’ — represented by A. Dybo, S. Starostin and his disciples. The solution of the problem of laryngeals is still more complex if Afro-Asiatic data are omitted, in agreement with the idea of Starostin and his followers that Afro-Asiatic should be detached from proper Nostratic.

(3) ‘Haifa-Michigan’ — represented by recent work by A. Dolgopolsky, followed by V. Shevoroshkin, M. Kaiser.

(4) ‘Charleston’ — represented by Allan Bomhard.

The representatives of the ‘Old Moscow’ school, including the present author, reconstruct the basic pattern of Nostratic appellatives in the canonical form *\*CV(C)CV*. Their ‘younger’ colleagues do not adhere to this model and reconstruct much more complex protoforms, including complicated clusters of consonants. Both ‘Old’ and ‘Young’ Muscovites in principle agree on the correspondences for the three basic series of stops between Afro-Asiatic and Indo-European (although for Starostin and his followers, Afro-Asiatic was not directly a member of the Nostratic club, but rather a sister macrofamily with a comparable time depth of divergence), while Bomhard proposed a different system of correspondences, conforming to the ‘glottalic’ reinterpretation of Indo-European consonantism. With a certain degree of simplification, the principal differences between the Moscow and Charleston schools can be illustrated in the following table, summarizing the correspondences between dentals:

Nostratic = Afroasiatic	<i>*ṭ</i>	<i>*t</i>	<i>*d</i>
Indo-European counterparts after Illič-Svityč	<i>*t</i>	<i>*d</i>	<i>*d<sup>h</sup></i>
Indo-European counterparts after Bomhard	<i>*d [= d<sup>2</sup>]</i>	<i>*t</i>	<i>*d<sup>h</sup></i>

Concerning the Indo-European laryngeals and their Nostratic predecessors, it is not possible to speak about any consistent system in any of the Nostratic schools. For this reason, it is necessary to return to IE reconstructions and try to verify them from the point of view of external comparison.

The main purpose of the present contribution is to summarize the most promising lexical correspondences and, with their aid, to map the IE counterparts of the Afro-Asiatic laryngeals, best preserved in Semitic and Egyptian. I use the standard symbols *\*H<sub>1</sub>*, *\*H<sub>2</sub>*, *\*H<sub>3</sub>* in IE reconstructions and accept the point of view of the Leiden school, proposing the elimination of laryngeal reflexes before IE *\*o* in Anatolian (cf. Beekes 1995, 144).

The present list of 80 lexical comparisons between Afro-Asiatic and Indo-European has been chosen according to two criteria: (i) The phonetic correspondences are in agreement with the phonetic rules established by V. M. Illič-Svityč and A. Dolgopolsky (with the exception of laryngeals, which represent the weakest point of the ‘Old’ Moscow Nostratic school); (ii) The

<sup>2</sup> Reinterpreted in agreement with the glottalic theory.

cognates actually contain laryngeals (in AA — laryngeals, pharyngeals and glottal stops). Preliminary conclusions are based on the following figures (asterisks indicate comparisons for which alternate solutions are possible):

- (1) AA \*ʔ ~ IE \*H<sub>1</sub> (## 1\*, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 60\*, 76; i.e. Σ 17 or 17 or 18×).
- (2a) AA \*ʕ ~ IE \*H<sub>2</sub> (## 17, 18, 19, 20, 21\*, 22\*, 24, 25, 26, 31, 32, 33, 34, 35, 36; i.e. Σ 13 or 14 or 15×), plus 3 cases of uncertain laryngeal presence in IE (##29, 37, 38).
- (2b) AA \*ʕ ~ IE \*H<sub>3</sub> (##23, 27, 28, 30, 33\*; i.e. Σ 4 or 5×).
- (3a) AA \*h ~ IE \*H<sub>2</sub> (##39, 40, 42, 43, 44, 48; i.e. Σ 6×), plus 2 cases of uncertain laryngeal presence in IE (##45, 47).
- (3b) AA \*h ~ IE \*H<sub>3</sub> (##1\*, 41, 46; i.e. Σ 2 or 3×).
- (4a) AA \*ḥ ~ IE \*H<sub>2</sub> (##22\*, 49, 50, 51, 52, 53, 54, 57, 58, 59, 60\*, 61, 62, 63, 67, 68, 70; i.e. Σ 14 or 15 or 16×), plus 4 cases of uncertain laryngeal presence in IE (##55, 64, 65, 69).
- (4/5a) AA \*ḥ / \*ḥ ~ IE \*H<sub>2</sub> (#56; i.e. Σ 1×).
- (4/5b) AA \*ḥ / \*ḥ ~ IE \*H<sub>3</sub> (#66; i.e. Σ 1×).
- (5a) AA \*ḥ ~ IE \*H<sub>2</sub> (##72, 73, 74, 75, 76\*, 78; Σ 5 or 6×), plus 1 case of uncertain laryngeal presence in IE (#77).
- (5b) AA \*ḥ ~ IE \*H<sub>2/3</sub> (#71; i.e. Σ 1×).
- (6a) Semitic \*γ ~ IE \*H<sub>2</sub> (#80; i.e. Σ 1×).
- (6b) Semitic \*γ ~ IE \*H<sub>3</sub> (#79; i.e. Σ 1×).

It is possible to conclude:

- (i) The correspondence of AA \*ʔ and IE \*H<sub>1</sub> looks relatively secure.
- (ii) It seems that AA \*ʕ, \*h, \*ḥ, \*ḥ, \*γ merged in IE \*H<sub>2</sub>.
- (iii) IE \*H<sub>3</sub> seems to be only a rarer (positional?) variant of \*H<sub>2</sub>.

There are certain typological parallels in the process of reduction of laryngeals in Semitic:<sup>3</sup> Semitic \*ʔ, \*h, \*ʕ, \*ḥ, \*γ > Akkadian ∅ (the deletion of \*ʕ, \*ḥ, \*γ caused the change \*a > e, not total, however, in the case of \*γ; in unique cases ḥ is written instead of the expected ∅ < \*ḥ or \*γ); Semitic \*ḥ > Akkadian ḥ (von Soden 1995, 13, 28, 31; Lipiński 1997, 149).

Semitic \*h, \*ḥ, \*ḥ > Harari ḥ; Semitic \*ʔ, \*ʕ, \*γ > Harari ∅.

Semitic \*ʔ > Hebrew, Aramaic, Soqotri ∅; Semitic \*ʕ, \*γ > Hebrew, Aramaic, Soqotri ∅; Semitic \*h > Hebrew, Aramaic, Soqotri h; Semitic \*ḥ, \*ḥ > Hebrew, Aramaic, Soqotri ḥ.

A similar process of reduction is attested in Cushitic (See Sasse 1979; Blažek 1997, 172; 2007, 135–37):<sup>4</sup>

Cushitic \*ʔ, \*ʕ > Beja, Arbore ∅. Cushitic \*h, \*ḥ > Beja, Arbore h.

Cushitic \*ʔ, \*h > Rendille ∅; Cushitic \*ḥ, \*ʕ > Rendille \*ḥ.

<sup>3</sup> See SED I, LXVIII–LXIX for regular phonetic correspondences between Semitic languages.

<sup>4</sup> Dolgopolsky 1991, 336 has discussed the change \*a > e after or before an original \*ʕ or \*ḥ in East Cushitic languages such as Bayso, Arbore, Elmolo, Dasanech or Yaaku, which is typologically comparable with situation in Akkadian.

## Afroasiatic \*ʔ

1. Semitic  $\sqrt{b-y}$ : Hebrew *ʔābā* “to want, desire”, Arabic dial. *ʔabā* id., usually “to refuse” (Leslau 1987, 6) ||| Egyptian *ʔbj* “wünschen, begehren” (WPS 66; Cohen 1947, #6)

IE *\*Hyeb<sup>h</sup>-/\*Heib<sup>h</sup>-*: Vedic *yābhati* “futuit”; Greek *οἶφω, οἶφω* “futuō”; Czech *jebati* “futuere” (Pokorny 1959, 298; LIV 309: *\*yeb<sup>h</sup>-* or *\*H<sub>3</sub>yeb<sup>h</sup>-*; *\*H<sub>3</sub>-* is compatible with *\*h* in Semitic  $\sqrt{h-b}$  “to love” compared with IE by Møller 1911, 109–10).

2. AA *\*(ʔan-)ʔaku* “ʔ”: Semitic: (i) Soqotri *ho(h)*, Mehri *hóh*, Jibbali *he*; (ii) *\*ʔanāku*: Tell Amarna *anuki*, Phoenician *nky*, Hebrew *ʔanōkī*, Samaritanian *anáki*, Old Aramaic *nky* with *\*-ī* after *\*ʔan-ī* “ʔ”; (iii) *\*-aku* ‘1sg. ending of stative (Akkadian) / perfect (West Semitic)’, cf. Akkadian *šalmāku* “valeo < *\*šalima* + *\*ʔaku* “valens ego” (Dolgopolsky 1984, 68) ||| Egyptian *ink* “ʔ” = *\*ʔanāku*, cf. Coptic *anok*; plus old perfect in *-k(j)*, later *-kwj* ||| Berber *\*\*ʔakkw* “ʔ” : 1sg. perf. *\*\*-ku* (Blažek 1995, 44–47):

IE *\*H<sub>1</sub>eĝ(Hom)* “ʔ”: Vedic *ahám*, Avestan *azəm, az*, Old Persian *adam*; Armenian *es* < *\*ec*; Hittite *ug, ugka*; Greek *ἐγώ(v)*, ?Messapic *ik* (Huld); Albanian *unë*; Venetic *ego*, Latin *ego*; Gothic *ik*, Old Runic *ek(a)*, Old Norse *ek*, Old English *ic*, Old High German *ih*; Prussian *es ~ as*, Lithuanian *aš*, Latvian *es*; Old Church Slavonic *azv*; Tocharian A *ñuk*, B *ñas* id. (Pokorny 1959, 291; Adams, EIEC 454).

3. AA  $\sqrt{m-m/y}$ : Egyptian (Old Kingdom) *ʔmm* “mit der Faust ergreifen” (Wb. I, 10) ||| Berber: Shilha *ämi* “to contain (of vessel)” ||| Chadic: (Central) Tera *oom* “to catch, seize”; Musgu *íma, imē* “fangen, ergreifen, nehmen, empfangen” | (East) Lele *ōm* “to seize, take”, Kabalai *am* “to catch” (EDE I, 67)

IE *\*H<sub>1</sub>em-*: Latin *emō, -ere* “nehmen”, Oscan *em-* id.; Old Irish *-eim* “nehmen”; Lithuanian *imù* : *iñti* “nehmen”, Old Church Slavonic *imō* : *jeŕi* id.; Tocharian A *yomär* “erlangten” (LIV 236; Pokorny 1959, 310–11).

Lit.: Dolgopolsky 1964, 9; Illič-Svityč I, #133: AA+IE.

4. Semitic *\*ʔin-a*: Akkadian *in(a)* “in, on, by; from”, Eblaite *in* “in, on”; Syriac *emmaṭ* “when” = Akkadian *ina mati* id.; Geez *ʔnbala* “without, except for” = Akkadian *ina bāla* “without” (Brockelmann 1908, 496; Leslau 1987, 27) ||| Berber: Nefusi *in, ěn*, Siwa *in* “à, vers” ||| Egyptian *in* “durch, seitens” (Wb. I, 89) ||| Cushitic: (East) Rendille *in-* “place”, Gedeo *-nvi* “in, on”.

IE *\*H<sub>1</sub>en-i*: Greek *ἐν*, poet. *ěvi* “in”; Messapic *in*; Oscan & Old Latin *en*, Latin *in*; Old Welsh *en, in*; Gothic *in*; Prussian *en* id. (Pokorny 1959, 312).

Lit.: Bomhard 1984, 251: Semitic+IE; Dolgopolsky, p.c. & Blažek 2004, 3–5: AA+IE.

5. Semitic *\*ʔap-*: Ugaritic *ʔp* “also”, Hebrew *ʔp* “(and) also”, Syriac *ʔāp* “also”; cf. also Geez *ʔafa* “out(side), beyond”

IE *\*H<sub>1</sub>ep-i /\*H<sub>1</sub>op-i*: Vedic *ápi* “auch, ferner; bei, in”, Avestan *aipī* “auch, späterhin”, Hittite *appizziya-* “afterwards”, Armenian *ew* “und, auch”, Greek *ἐπι* “auf, zu, an”, Oscan *úp, op* “bei”, Lithuanian *apiẽ* “around” (Pokorny 1959, 323–24).

Lit.: Bomhard 1984, 252: Semitic+IE.

6. Semitic *\*ʔarwiy-*: Akkadian *arwīu, arwū* “gazelle”; Eblaite *a-wi-um /ʔarwiyum/* “goat”; Arabic *ʔurwīyyat*, pl. *ʔarwā* “mountain goat”; Sabaic *ʔrwy-n* pl. “mountain goat, ibex”; Mehri *ʔarí* “goat” ||| Cushitic: (East) *\*ʔaray-*: Somali *ari, eri* “sheep or goat”, Burji *aráy* “sheep”, Yaaku *erer* “antelope” || (South) *\*ʔari*: Iraqw *ari* “goat”, Burunge pl. *ara* id. (SED II, 26–28)

IE *\*H<sub>1</sub>er-(i)-*: Old Indic *āreya-* “Widder”; Armenian *erinj* “Färse”; Greek *ἔριφος* “young goat/buck”; Latin *ariēs*, Umbrian acc. sg. *erietu* “Widder”; Old Irish *eirp* “Ziege, Hirschkuh” (Pokorny 1959, 326; Irslinger, NIL 233–35).

Lit.: Bomhard 2008, 593–94: AA+IE.

7. AA  $\sqrt{t-y/w}$  &  $\sqrt{t-y/w}$ : Semitic  $\sqrt{t-y/w}$ : Akkadian *tarû(m)* “to eat” (CDA 402); Mehri *tawû*, Harsusi *tawō*, Jibbali *té*, Soqotri *té*, Jahn: *towú* “to eat” (Johnstone 1987, 404) ||| ?Egyptian *t* “bread” (Cohen 1947, #315: Semitic+Egyptian) ||| Cushitic: (North) Beja *tiyu* “food” || (East) Bayso *eede* “to eat” (Hayward); Oromo *ito* “food”; Sidamo, Kambatta, Gedeo, Hadiya, Burji *it-* “to eat” (Hudson 1989, 55; Sasse 1982, 108) ||| Chadic: (West) Hausa *ci*; Fyer *et*, Tambas, Kulere *ci*; Tangale *edi*, Dera *twi*; Gerumai *tiya*; Warji *ta*, Mburku *ti*; Guruntum *či*; Ngizim *tá* || (Central) Zime Batna *tí*, Masa *tíná* || (East) Lele *dí*; Dangla *tèè*, Migama *tíyáw*; Mubi *túwà/tiyá* “to eat” (Jungrauthmayr & Ibrizimow 1994, 120–21) ||| Berber  $\sqrt{w-t-t}$ : South Berber habitative *\*tattaH* “to eat” (Prasse 1973, 110; Militarev 1991, 257, #22.3.; on the other hand, Berber  $\sqrt{k-s-H}$  “to eat” (Prasse 1973, 109–10; Militarev 1991, 257, #22.1. & 22.2.) represents another root, cf. Chadic: (West) Tal *gūse*; (Central) Nzangi *gos* id. (Jungrauthmayr & Ibrizimow 1994, 120–21) ||| ?Semitic: Soqotri  $\sqrt{g-š-}$  “manger” (Leslau 1938, 116–17).

IE *\*H<sub>1</sub>ed-* “beissen, essen”: Vedic *átti*, *adanzi* “essen”; Hittite *ēdmi*, *adanzi* “essen”; Greek fut. *ἔδομαι* “werde essen”; Latin *edō*: *ēsse* “essen”; Old Irish *ithid* “isst”; Gothic *itan* “essen”; Lithuanian *ėsti*, Old Church Slavonic *jasti* id. (LIV 230; Pokorny 1959, 287–89).

Lit.: Illič-Svityč I, #136: AA+IE. Møller 1911, 65: IE+Arabic *hataa* “edit (cibum)”.

8. Semitic  $\sqrt{w-n}$ : Arabic *rāna* “he was/became at rest, rested, enjoyed a state of repose or tranquillity”, *rāun* “commoditas”, Thamudic *n* “tranquillité”; Geez *tarayyana* “to live well and comfortably” (DRS 12–13; Leslau 1987, 50)

IE *\*H<sub>1</sub>wen-*: Greek *εὐνη* “Lager, Bett, Ehebett”; Albanian *vë* “setzt, stellt, legt”; Old Norse *una* “to dwell, be content, enjoy”; Old English *wunian*, Old Frisian *wunia*, Old Saxon *wonōn*, Old High German *wonēn* “to dwell, remain” (cf. LIV 682–83 otherwise).

Lit.: Møller 1909, 36; Id. 1917, 9: Arabic + Greek.

9. AA *\*rāyl-*: Semitic *\*rāyyal-* “stag, deer”: Akkadian *ayalu* “stag, deer”; Ugaritic *āyl* “deer”, *āyilt* “hind”; Phoenician *ryl* “stag”, Hebrew *rāyyāl* “fallow deer”, *rāyyālā* “doe of a fallow deer”; Old Aramaic *ryl* “deer, stag”, *rylth* “hind”, Judeo-Aramaic *rāyyālā* “hart”, *rāyyaltā* “hind, roe”, Syriac *rāylā* “cervus”, *rāylatā* “cerva”, New Syriac *ēlā* “hart”; Arabic *rīyyal* “bouc de montagnes, cerf”; Sabaic *ryl* “mountain goat, ibex”; Jibbali *ayyól* “Steinbock”; ?Geez *hayyal* “ibex, mountain goat” ||| Cushitic: (East) Somali *eelo* “a kind of gazelle”; Gollango *yiiló* “Wasserbock / Kobus defassa”, Harso *yilicakkó* “Grimms Ducker / Sylvicapra grimmia abyssinica” (Amborn, Minker, Sasse); Kambatta *elliéti* “antelope nana” (Cerulli) || Dahalo *rèèle* “hartebeest” || (South) Gorowa *eletemo* “bushbuck” ||| Chadic: (East) Kabalai *yile* “antelope” (SED II, 39–40, #25)

IE *\*H<sub>1</sub>el(y)-en-* “stag, deer”: Hittite *aliyan-* “roe(buck)” (Puhvel, HED 3, 139); Armenian *eth*, gen. *ethin* “hind”; Greek Homeric *ἔλαφος* “stag; hind”, cf. Mycenaean *e-ra-pi-ja* “pertaining to deer”, further *ἐλλός* “young of (red) deer, fawn”, *ἔνελος* id. < *\*elenos*; Gaulish *ELEMBIV* ‘month-name from the Calendar of Coligny, perhaps devoted to “deer”’, Welsh *elain* “hind”, Breton *élan* id. < *\*elanī*, Middle Irish *ell* “herd” < *\*elnā*; Old Lithuanian *elenis* “elk, moose; red deer”, Lithuanian *ėlnis* “elk, moose”, *ėlnė*, *álnė* “hind”, Latvian *ālnis* “elk”; Prussian *alne* ‘Tyer’, correctly probably “deer” or “hind”; Old Church Slavonic *jelenb* “deer”, *lani* “hind” < *\*olnī*; Tocharian A *yäl*, B *yäl* “gazelle” (Adams & Mallory, EIEC 154–55).

Lit.: Illič-Svityč I, 272–73, #135 (following Trombetti): Semitic + IE.

10. AA  $\sqrt{y}$ -s: Semitic  $*i\check{s}/\check{t}$ :- Old Akkadian inf. *išû*, in the suffixal conjugation *iš-āku* “I have”, in the prefixal conjugation *tīšu* “you have” < *\*ti-išu*, lit. “tibi est”, *išu* “he has” < *\*yi-išu*, lit. “ei est” (→ “there is”); other forms are derivable from *\*iṭay* “there is”: Ugaritic *iṭ*; Biblical Hebrew *iš*; Biblical Aramaic *iṭay*, Syriac *iṭ*; the enigmatic  $*-t-$  was probably caused by the infix  $*-t-$ , while the continuants of the original  $*-š-$  are preserved in the negative form: Akkadian *laššu(m)* “non existing” < *\*lā ṛayšu*; predicative in  $*-a$  continues in Old Aramaic *lyš*, Arabic *laysa* “there is not” vs. *ṛaysa* “there is” (Dolgopolsky 1995; DRS 18) ||| Cushitic: (East) Afar *ase*, Saho *as-* “to spend the day”; ?Sidamo, Gedeo, Kambatta, Hadiyya *hos-* “to spend or pass the day” (Hudson 1989, 110) ||| Omotic: (North) Zayse *yes-* “esserci” (Cerulli).

IE  $*H_1es-$  “to be”: Vedic *ásti* “ist”, Avestan *astī* id.; Armenian *em* “bin”; Hittite *ēszi*, Hieroglyphic Luwian *asti* “ist”; Greek *ἐστί* id.; Albanian *jam* “bin”; Latin *est* “ist”; Old Irish, Old Welsh *is*; Gothic *ist*; Old Lithuanian *ēsti* id., Old Church Slavonic *jesmь* “bin”; Tocharian *star°* “ist” (LIV 241–42; Pokorny 1959, 340–41).

Lit.: Dolgopolsky 1964, 10: Semitic+IE; Illič-Svityč 1971, #132 and Dolgopolsky 1995: AA+IE.

11. Semitic  $*b^{\check{r}}r-$  ~  $*bu^{\check{r}}r-$ : Akkadian *būru*; Punic pl. *bhrm*, Hebrew *bēṛer*, *bōr*; Old Aramaic *byr*, Empire Aramaic *bṛ*, Syriac *beṛā*; Arabic *bīr*, *burat*; Sabaic *bṛ*; Soqotri *ṣēbehor* “puits” (DRS 41) ||| Egyptian *bʔy(t)* “Wasserloch”, *bʔbʔt* id., while  $\check{r}$  in *bṛ* “Brunnen” is enigmatic (WPS 293)

IE  $*b^hrH_1ur$ , gen.  $*b^hruH_1nós$ : Armenian *ałbiwr* “well”; Greek *φρέαρ* id.; Old Irish *bruinnid* “wells up”, perhaps also Middle Irish *tipra*, gen. *tiprat* f. “well”, if it is derivable from  $*to-ess-brū-nt-$ ; Germanic  $*brunnōn$  m. “well” > Gothic *brunna*, Old High German *brunno*, Old Saxon *brunno*, Old Frisian *burna*, Old English *brunna*, Old Nordic *brunnr* id. (Kluge 1999, 139–40; Pokorny 1959, 144; Beekes, EIEC 539).

Lit.: Witczak, p.c.: Semitic+IE.

12. Semitic  $\sqrt{r}$ -y: Hebrew *rāā* “to see, look at, understand”; Syriac *rāhā* “to observe”; Arabic *raā* “to see”; Geez *rāya* “to see, observe, look” (Leslau 1987, 458–59)

IE  $*reH_1$ : Albanian *ruej*, *ruaj* “to mind, guard”, *ré* “attention”; Latin *reor* : *rērī* “berechnen, meinen”; Gothic *raþjo* “Zahl; Rechnung” (LIV 499; Pokorny 1959, 59; Mann 1984–87, 1068–69)

Lit.: Møller 1909, 113; 1911, 207: Semitic+Latin.

13. Semitic  $\sqrt{r}$ -d-: Arabic *radāa* “to give support to, help, assist; take good care of camels”; Sabaic *rd* “to dedicate, offer”, *h-rd* “to help, aid”; Geez *radā* “to give help, assist, protect” (Leslau 1987, 462; Biella 1982, 480; Steingass 1988, 409)

IE  $*reH_1d^h-$  > Vedic *rādhati* “wird zustande bringen”; Old Irish *-ráidi* “überlegt, sagt”, Middle Welsh *ad-rawd* “erzählt”; Gothic *rodjan* “reden”; Old Church Slavonic *raditi* “beachten, sich kümmern” (LIV 499; Pokorny 1959, 59–60).

14. Semitic  $\sqrt{s}$ -l-: Hebrew  $\sqrt{s-l}$  “to pay with fine gold”; Arabic *salāa* “to pay”; Sabaic *sl* “to pay, offer as tribute, dedicate” (HAL 756; Biella 1982, 505–06)

IE  $*selH_1-$ : Greek *εἶλον* “nahm”; Latin *cōn-sulō,-ere* “versammeln, beraten, befragen”; Old Irish *selb*, Welsh *helw* “possession”; Gothic *saljan* “to sacrifice”, Old Norse *selja* “to hand over, deliver”, *sal* “payment”, Old High German *sal* “property” (Pokorny 1959, 899; LIV 529).

15. Semitic  $\sqrt{w}$ -d-: Sabaic *wd* “to achieve”; Geez *waddāa* “to finish, complete, bring to a conclusion, make an end”, Tigre *wode* “to make”, Tigray *wādve* “to finish” (Leslau 1943, 14; Id. 1987, 604) ||| Egyptian *wdj* “setzen, stellen, legen; geben, darbringen; einsetzen, ernennen” (WPS 92; Wb. I, 384–87).

IE  $*d^heH_1$ - “stellen, legen, setzen; herstellen, machen”: Vedic *dádhati* “setzt, schafft hin, macht”; Hittite 1 sg. *tēhhi*, 3 sg. *dāi* “einsetzen, legen”, Luwian *tuwa-* “setzen, errichten”; Armenian *ed* “setzte”, med. *edaw* “wurde gesetzt”; Greek τίθημι, -εμεν “setzen, legen”; Latin *condere* “gründen”, Umbrian conj. *feia* “soll machen”; Old English *dōn* “tun, machen”; Old Lithuanian 1 sg. *demi*, 3 sg. *dest(i)* “legen, setzen, machen”; Old Church Slavonic *děti* “setzen, legen; sprechen”; Tocharian A *tā-* “setzen, legen” (LIV 136; Pokorny 1959, 235–39).

Note 1: Illič-Svityč (1971, 224, #75) compared IE  $*d^heH_1$ - with Semitic  $\sqrt{w-d}$  “to put”, but IE  $*H_1$  probably does not correspond to Semitic/AA  $*\varsigma$ . On the other hand, Egyptian *-j-* is one of the regular continuants of AA  $*\varsigma$  (EDE I, 81–84).

Note 2: Egyptian *wdj* has been traditionally compared with Semitic  $\sqrt{w-d-y}$  “to throw; send”, but the meaning “to put, add, place, set” in addition to “throw, cast” is attested only for Geez *wadaya* (EDE I, 241).

16. Semitic  $\sqrt{w-r}$ : Ugaritic *y-r-* “to be afraid, frightened”; Hebrew *yārē* perf. “fürchten”; Arabic *wawara* “to frighten” (DUL 977; DRS 615).

IE  $*wer(H_1)$ - “to warn” > Latin *vereor*, inf. *verērī* “to regard, revere”; Latvian *vēru* : *vērt* “schauen, bemerken”; Serbo-Croatian *verati se* “to keep a lookout, be furtive” (LIV 685; Kümmel reconstructs the essive  $*wr_1-H_1yé-$ , but it is possible to accept an alternate morphological segmentation with the present tense extension  $*wr_1H_1-yé-$ ; Pokorny 1959, 1164; Mann 1984–87, 1516).

Lit.: Möller 1909, 142: Hebrew+Latin.

### Afroasiatic $*\varsigma$

17. Semitic  $\sqrt{\varsigma-d-w}$ : Ugaritic *dy* “to remove, make disappear”; Hebrew *śādā* “to stride”; Aramaic *śādā* “to pass by”; Arabic *śadā* “to run, pass”; Sabaic *śdw* “to move, march; Soqotri *dy* “to cross”; Geez *śadawa* “to cross, pass over” (DUL 152; Leslau 1987, 56–57)

IE  $*weH_2d^h$ - “durchschreiten” > Latin *uādō*, *-ere* “gehen, schreiten”; Old Norse *vaða* “waten” (LIV 664; Pokorny 1109).

18. Semitic  $\sqrt{\varsigma-k-w}$ : Arabic *śakā* “to rise, be big and fat” (Steingass 1988, 717)

IE  $*H_2eug-$  “stark werden”: Vedic *ójas-*, Avestan *aojah-* “Kraft”; Latin *augeō*, *-ēre* “vermehrten”; Gothic *aukan* “sich mehren”; Lithuanian *áugu* : *áugti* “wachsen” (LIV 274–75; Pokorny 1959, 84–85).

19. Semitic  $\sqrt{\varsigma-l-y}$ : Akkadian *elū* “to travel uphill, rise, grow”; Ugaritic *ly* “to go up”; Hebrew *śālāh* “id., ascend”, Arabic *śalā* “to be high”, Mehri *śālēw* “at the top” (Leslau 1987, 60, 303–04) ||| Egyptian (Old Kingdom) *sr* ~ *śr* “to mount up, ascend”, Coptic *ale* id. (Wb. I, 41) ||| Berber  $\sqrt{H-l-y}$ : (E) Nefusa *āli* “to mount” | (N) Iznacen-Senhaja *aley* “to rise, mount”, Qabyle *ali* “to mount” | (W) Zenaga *ellēh* “monter, être en haut” | (S) Ahaggar *ali* “to suspend” ||| Chadic: (W) Angas *yaal* “to get up, rise”, Mupun *yool* “stand up”; Tangale *ile* “to stand up, rise, start”, Dera *yil* “to stand up”; Geji *hilya* “to stand up” | (E) Kwang *aalé-*, Ngam *alé*; Sumray *àyl-* “to climb”; Dangla *aale* “to step, jump over” ||| Cushitic: (E)  $*\varsigma al-$ : Saho *sal* “mountain”; Somali *sal* “coastal range of mountains”, Rendille *hal* “mountain”; Arbore *el* “stone”; Sidamo *ale* “top” (Sasse 1979, 35–36; EDE I, 94).

IE  $*H_2el-$  “to grow, nourish”; cf. the derivative  $*al-to-$  “high, old” > Latin *altus* “high”, *adulus* “adult”; Middle Irish *alt* “height; shore”, Old Irish *altae* “adult”, Welsh *allt* “forested hill”; Gothic *alpeis* “old”; Old English *eald*, Old Saxon *ald* id. (Pokorny 1959, 26; Lehmann 1986, 29–30; LIV 262).



20. Semitic: Ugaritic *ʿl* “next, in addition” (DUL 157: originally from “height”) = “second” (Segert 1984, 196)

IE *\*H<sub>2</sub>el-* in *\*alyo-* > Armenian *ayl*, Greek ἄλλος, Latin *alius*, Old Irish *aile*, Gothic *aljis*, Tocharian B *alye-k* “other”; cf. further *\*ali-tero-* > Latin *alter*, Oscan dat. *altrei* “(an)other” (Pokorny 1959, 24–26).

21. Semitic: Arabic *ʿanan* “side”, *ʿan* “from, for; upon; in”, Sabaic *ʿan* “away from”, Soqotri *ʿan* “de, pour” (Steingass 1988, 729; Leslau 1938, 315) ||| Cushitic: (East): Somali *ʿan* “cheek, chin” || Dahalo *ʿani* “head” ||| Egyptian *ʿnʿn* “chin; neck” (Wb. I, 191)

IE *\*H<sub>2</sub>en-H<sub>2</sub>el-u-*: Vedic *ánu*, Avestan *anu* “nach”, *ana* “entlang”, Greek ἄνα “auf, in die Höhe, entlang”, Gothic *ana* at, on”, Lithuanian *anót(e)* “entsprechend” (Pokorny 1959, 39–40; Rasmussen 1989, 188).

Lit.: Bomhard 1984, 251: Akkadian+IE. Blažek 2004, 8–9: AA+IE, where alternate *comparanda* in Semitic *\*[h]ana* > Akkadian *an(a)* “to, for” (CDA 16) ||| Egyptian *hn* “Kopf; bis hin nach..” (Wb. II, 492, 495) ||| Cushitic: (East) Harso-Dobase *ana* “on”, Hadiyya, Gedeo *hana*, Sidamo *aana* “over, on”, are also discussed.

22. Semitic *\*ʿa/ing-(at-)* > Eblaite *in-gu /ingu(m)/* “neck”; Arabic *ʿunġūġ* “qui a un long cou, une longue enclosure”; Gurage & Amhara *angät* “neck” > Tigre & Tigray *ʿangät* id. (SED I, 18) and / or Arabic *hanġarat* & *hunġūr* “larynx” ||| Egyptian *hngg* “Schlund” (Wb. III, 121).

IE *\*H<sub>2</sub>enġ<sup>h</sup>u-* > Armenian *awj* “Kehle”, *awjik* “Halskragen”; Greek Aeolic ἄμφων & αὐφων “Nacken”; Gothic *hals-agga* “Nacken”; Old Prussian *winsus* “Hals”; (or <) Slavic *\*vezьb* > Czech *vaz* “Genick, Nacken”, Ukrainian *vjazь* pl. “Genick” (Pokorny 1959, 43, 87).

Lit.: Bomhard 2008, 661–62: AA+IE.

23. Semitic: Ugaritic *ʿaq* “eyeball”; Hebrew *ʿāqā* id. (HAL I, 873); maybe Geez *ʿoqa* “to know, understand, observe”, Amharic *awwäqä* “to know”, Harari *āqa* id. (Leslau 1987, 78–79), although it is possibly borrowed from Cushitic: (Central) *\*ʿaq-* “to know” > Kemant *ax-*, Awngi *aq-/yaq-*, Kunfäl *ah-* || (East) Somali *-aq* id. (Appleyard 2006, 89–90)

IE *\*ok<sup>w</sup>-* (*\*\*H<sub>3</sub>ek<sup>w</sup>-*) “eye” > Vedic *ákṣi* “eye”, *íkṣate* “sieht”; Avestan *aši* “eyes” (after du. *uši* “ears” from *\*axšī*), *aīβīīāxštar-* “Aufseher”; Armenian *akn*, gen. *akan* “eye”; Greek du. ὄσσε “eyes” (*\*H<sub>3</sub>ek<sup>w</sup>iH<sub>1</sub>*), ὄψομαι “ich werde sehen”, ὄπωπα “habe gesehen”, ὄμμα “eye” (*\*opma* < *\*ok<sup>w</sup>-mḡ*), ὄφθαλμός “eye”, Boeotic ὄκταλλος id., gloss. ὄκκον : ὄφθαλμός; Albanian *sy* “eye”; Latin *oculus* id.; Old Irish *enech*, Middle Welsh *enep* “face”, cf. Old Indic *ánīka-* “Vorderseite”, Avestan *ainīka-* “Antlitz”; Germanic *\*augan-* > Gothic *augo*, Old Norse *auga*, Old High German *ouga*, besides *awi-zoraht* “augenscheinlich”, Old English *ēawan* “zeigen, offenbaren” (*\*awjan* < *\*agwjanan* < *\*ok<sup>w</sup>-*); Lithuanian *akis* “eye”, Latvian *acs*, Prussian pl. *ackis*; Old Church Slavonic *oko*, gen. *očese*, dual. *oči*; Tocharian A *ak*, B *ek* id. (Pokorny 1959, 776–77). The root *\*H<sub>3</sub>ek<sup>w</sup>-* also has a verbal function in IE: Vedic *íkṣate* “nimmt wahr, erblickt”; Greek ὄπ-ωπα “beobachte, nehme wahr, betrachte”, fut. ὄψομαι “werde sehen” (LIV 297).

24. Semitic *ʿ√-q-q-*: Arabic *ʿaaq* “to make the cloud to rain”, *ʿ√-q-y-*: Arabic *ʿaqa* “to give to drink” (Steingass 1988, 710, 714) ||| ?Egyptian place name *ʿq?* ‘Pehhu-waters’ (WPS 292) ||| Cushitic (Central) *\*ʿaq<sup>w</sup>* “water” > Bilin *ʿ/ak<sup>w</sup>*, Khamtanga *aq<sup>w</sup>*, Kemant *ax<sup>w</sup>*, Awngi *ayyu* || (East) Konso *haqa*, D’irayta *haḳa* id. ||| Omotic: (North) Yemsa *akà* id. (Appleyard 2006, 144)

IE *\*H<sub>2</sub>ek<sup>w</sup>-* “water”: Latin *aqua* “water”; Celtiberian *akua* in *tar akuai* “through water” (de Bernardo Stempel 2007, 58); Gothic *ahva* “Fluss, Gewässer”, Old Norse *ó*, Old English *ēa*, Old Saxon, Old High German *aha*, German *aha* id. (Pokorny 1959, 23).

Lit.: Trombetti apud Dolgopolsky 1964, 8; Illič-Svityč I, #139: AA+IE.

25. Egyptian *sr* “Binse”, maybe also *sr̥* “Schilfrohr”, if it is a partial reduplication from *\*sr̥sr̥* (WPS 240; Wb. I, 208; Takács in EDE I, 94–95 connects it with the Semitic-Chadic isogloss *\*salaw-* “leaf”)

IE *\*H<sub>2</sub>ero-* > *\*aro-*: Greek *ἄροσ* “Art Schilfrohr, Natterwurz”; Latin *harundō* “Rohr” (Pokorny 1959, 68). Of interest is Hittite *arisanda-* “Art Rohr?” (Tischler 2001, 22); the absence of the laryngeal indicates the root vowel *o*: *\*H<sub>2</sub>or<sup>o</sup>*.

26. Semitic  $\sqrt{sr-g}$ : Hebrew *sārag*, Arabic *saraḡa* “to ascend”, Geez *sarga* “to ascend, go up” (Leslau 1987, 70)

IE *\*H<sub>2</sub>erg<sup>h</sup>-*: Armenian *arg-* “first-”; Greek *ἀρχή* “beginning, origin”, *ἄρχός* “leader”; Middle Irish *arg* “outstanding” (Mann 1984–87, 33).

Note: Cf. Bomhard 2008, 706–07: Semitic+Dravidian.

27. Semitic  $\sqrt{sr-k}$ : Ugaritic *sr-k* “to prepare” (DUL 182), Hebrew *sr-k* “to lay out, set in rows; get ready, set out in order; confront; draw up a battle formation” (HAL 884–85); Arabic *saraka* “to make wise”, *sarkat* “experience” (Steingass 1988, 689).

IE *\*H<sub>3</sub>reḡ-* “gerade richten, ausstrecken” > Old Indic *rñjate* “bewegen sich in gerader Linie rasch vorwärts”, *rñjati* “herrscht”, *irajyāti* “richtet, leitet”; Young Avestan *-rāzaiiēte* “richtet”, Khotanese *rays-* “lenken”, Greek *ὀρέγω* “strecke”, Latin *regō*, *-ere* “richten, lenken”; Old Irish *a-t:raig*, *a-ta:regat* “sich erheben”; Gothic *-rakjan* “rechen”; Lithuanian *režti* “spannen, straffen”; Tocharian B *reksa* “breitete aus”, conj. *rāsām* “soll austrecken, -breiten” (Pokorny 1959, 854–57; LIV 304–05).

Lit.: Möller 1917, 27: Hebrew + IE.

28. Egyptian (OK) *sw.t* “small cattle (goats and sheep)” (Wb. I, 170–71) ||| ?Cushitic: (North) Beja *ay*, *äy*, *ey* f., pl. *éeya* “Ziege”, *eyáa-t-éega* “Ziegenhirt” (Reinisch 1895, 37 who connected it with Tigre *äyēt* “Ziege, Zicklein”). It is perhaps compatible with some Cushitic parallels: (East) Burji *ayáan-e* “gazelle” (Sasse 1982, 29) || (South) Qwadza *arato* “sheep” (Ehret).

IE *\*H<sub>3</sub>ewi-* “sheep”: Vedic *ávi-* “sheep”, Wakhi *yobc* “ewe” < *\*āvi-či-*; Armenian *awdik* “sheep” : *hoviw* “shepherd”; Cuneiform Luwian *hāwī-*, Hieroglyphic Luwian *hawali-*, Lycian *χawa-* “sheep”; Greek *ἄις*, Argolide acc. pl. *οφίως* “sheep”; Latin *ovis* “sheep”, Umbrian *uven* “ovem”; Old Irish *ói* “sheep”; Old Norse *ær* “ewe”, Old Saxon *euui* etc., Gothic *awistr* “sheep-cote”; Lithuanian *avis*, Latvian *avs* “sheep”; Slavic *\*ovbca* “sheep” < *\*owikā*; Tocharian B *āiwo*, pl. *awi* “sheep” (Wodtko, NIL 335–39).

Lit.: Möller 1909, 105: Egyptian + IE.

29. Semitic *\*sayan-* “eye” (SED I, 28) ||| Egyptian *sn* “eye” (reconstructed on the basis of the hieroglyph depicting “eye” — Wb. I, 189) ||| Cushitic: (E) *in(H)-t-* “eyes” > Saho-Afar *intii*; Somali & Rendille *inḏo*, Boni *innē*; Arbore *iyndā*, Dasenech *inni*; D’irayta *inda* (ECushitic *\*in-t-* with *\*r-* instead of expected *\*r-*, was possibly caused by contamination with *\*nil-(at-)* “eye”) || Dahalo *seen-aad-* “to see from afar” ||| Berber  $\sqrt{in-H-y}$ : (S) Taneslemt *ənhy*, impf. intens. *ihannay*, Tadghaq *ənhy*, Ahaggar *əny*, impf. intens. *ihānnay* | (N) Semlal, Zayan *annay* “to see” ||| Chadic: (W) Angas *nee* “to see, understand”, Mupun *náa* “to see, look”; Bole *innáa-* “to see, think”; Ron: Daffo-Butura *yen* “to see”; Sbauchi: Geji *yenî*, *yèni* “to see” || (E) Jegu *inn-* “to know, can” (EDE I, 125, 126)

IE *\*neiH-* > Old Indic (cl., ep.) *nayana-/ā-* n./f. “Auge”, (Manu, Kauś.) *netrá-* n. id.; Latin *renideō* “erglänzen”, *niteō*, *-ēre* “glänze, strahle”; Middle Irish *níam* “Glanz, Schönheit” (Pokorny 1959, 760).

30. Semitic  $\sqrt{d-r-s}$ : Arabic *ḍarasa* “he stretched forth (extended) his arm, *ḍarrasa* “he spread himself out widely, stretched forth his forearms (in swimming)”, besides *ḍirās* “forearm” with numerous Semitic counterparts: Akkadian *duraru* “bras, patte antérieure”; Ugaritic *ḍr̄s*; Hebrew *zēroʿs*; Biblic Aramaic *redras*, Syriac *dērāsā*; Jibbali, Soqotri *ḍeras*; Tigre *zāras* “bras, avant-bras” (DRS 341)

IE  $\sqrt{sterH_3-}$ : Avestan *starāna-* “hinbreitend”; Greek *στόρνυμι* “breite aus”; Latin *sternō, -ere* “hinstreuen, breiten” etc. (LIV 599; Pokorny 1959, 1029–30)

Lit.: Møller 1909, 129–30: Semitic+IE.

31. Semitic  $\sqrt{nasar-}$ : Ugaritic *n̄sr* “boy, lad”; Phoenician *n̄sr*, Hebrew *násar* “young man; lad, adolescent; fellow, servant” (DUL 616; Segert 1984, 194; HAL I, 707) ||| ?Chadic: (East) Sumray *nārje* “people” (Lukas).

IE  $\sqrt{H_2ner-}$ : Vedic *nár-*, Avestan *nar-* “Mann, Mensch”, cf. Vedic *sūnára-* “voll von Lebenskraft, jugendlich”; Hittite *innarahh-* “kräftig machen”, *innaru-* “rüstig, kräftig”, Luwian *annari-* “rüstig, stark, kräftig”, *annarawar* “Männlichkeit”; Armenian *air*, gen. *airn* “Mann, Mensch”; Phrygian *αναρ* “Mann”, Greek *άνήρ*, gen. *άνδρός* “Mann”, but the gloss *νορεῖ : ἐνεργεῖ* (Hes.); Alban *njer* “Mann, Mensch”; Oscan gen. pl. *nerum* “vir, procer”, Umbrian acc. pl. *nerf* “principes, proceres”; Welsh *ner* “Held”, *nerth* “Mannhaftigkeit”, Old Irish *nert* id., *nár* “edel, grossherzig”; Gaulish *Nāria* f.; Old Germanic goddess *Nerthus* (Tacitus) ~ Old Norse god *Njorðr*; Lithuanian *nóras* “Wille”; Slavic  $\sqrt{norvb}$  > Old Church Slavonic *nravb* “Sitte” (Pokorny 1959, 765; Tischler 2001, 61, 16).

32. Egyptian *pʿw* “fire” (Wb. I, 503) ||| South Berber  $\sqrt{ē-fiHiw}$ , pl.  $\sqrt{i-fiHiw-ān}$  “fire” (Prasse 1974, 125–26) ||| Chadic: (Central) Gidar *afá*; Logone *fo*; Musgu *afu* “fire” (JI II, 139)

IE  $\sqrt{peH_2w-(r/n-)}$  “fire”: Armenian *hur* “Feuer”, *hnoc* “Ofen”; Hittite *pahhur*, dat. *pahhueni* “Feuer”; Greek *πῦρ*; Umbrian *pir*, acc. *porom-e*; Old Nordic *fúrr*; Old High German *fuir*; Gothic *fon*; Old Prussian *panno* id., Old Czech *pýř* “glühende Asche”; Tocharian A *por*, B *puwar* “Feuer” (Pokorny 1959, 828).

Lit.: Dolgopolsky 1964, 13 & Illič-Svityč 1967, 352: AA + IE + other Nostratic.

33. Semitic  $\sqrt{p-r-s}$ : Ugaritic *pr̄s* “first” (Segert 1984, 198; Gordon 1965, 471 also mentions ordinal usage in *ym.pr̄s* “the first day”) or “chief; excellent, the best one” (Aistleitner 1965, 261), Hebrew *peras* “chief” (cf. German *Fürst*), Arabic *far̄s* “top (of branch)”, *far̄sat* “vertex montis”, *far̄as* “firstling”, *far̄siyy* “first-born, first” etc.

IE  $\sqrt{perH_2-}$ :  $\sqrt{pr̄H_2ós}$  “before” (originally gen.) > Old Indic *purás*, Greek *πῶρος*;  $\sqrt{preH_2i}$  “at the front” (originally loc.) > Oscan *prai*, Latin *prae*, Gaulish *are-*, Old Irish *air*, Old Church Slavonic *prě-dvb*;  $\sqrt{pr̄H_2-éH_1}$  (originally perhaps instr.) > Old Indic *purá* “formerly”; Gothic *faura* “in front (of)” (so Beekes 1995, 221; Rasmussen 1989, 272:  $\sqrt{preH_3-}$ ). Cf. further  $\sqrt{pr̄H_2wo-}$  > Old Indic *púrva-* “prior”, Avestan *paouruiia-* “first” : *pauruua-* “prior”, Old Church Slavonic *prvbvb* “first”, Tocharian B *parwe* “at first”.

Lit.: Møller 1909: 110; 1911, 205: Semitic+IE.

34. Semitic  $\sqrt{s-m-s}$ : Old Akkadian & Assyrian *šamāru(m)*, Akkadian *šemû(m)* “to hear, listen, understand”; Ugaritic *šm̄s* “to hear, listen (to), notice”; Hebrew *šāmas* “to hear, listen to, understand”, *šōmeʿs* “witness”, *šāmas* “song, melody”; Jewish Aramaic *šēmas*; Arabic *samisa* “to hear”; Sabaic *sm̄s* “id.; witness”; Geez *samsa* “to hear, listen, understand” (CDA 366; DUL 823; HAL 1570–74; Leslau 1987, 501–02)

IE  $\sqrt{sH_2em-}$  “song”: Vedic *sām-an-* “song”; Hittite *ishamai-* c. “song, melody”; Greek *οἶμη* “song, lay”, *οἶμος* id. (Benveniste, *BSLP* 50/1, 1954, 39–40; Puhvel, *HED* I–II, 394–95).

Lit.: Brunner 1969, 189, #1028: Semitic+Hittite.

35. Semitic  $\sqrt{w-s-k}$ : Arabic *wasaka* “être très chaud (jour d’été)” (DRS 577)

IE  $*H_2eug-$ : Greek  $\alpha\upsilon\gamma\eta$  “Glanz, Strahl, Tageslicht”; Albanian *agume* “Morgenröte, Morgen”. (Pokorny 1959, 87; Mann 1984–87, 41).

36. Semitic: Syriac *yaṣā* “avis quadem, pterocles al. coturnix”; Tigre *wise* “sorte de passereau” (SED II, 312, #243:  $*wV\text{-}$ ) || Egyptian  $\text{rws}$  “ein Vogel”,  $\text{rjw}$  “Graukranich – Jungvogel / Grusgrus juv.” (WPS 211).

IE  $*H_2woi-$ s nom. :  $*H_2wei-$ s gen. “bird” (Schindler) > Armenian *haw* and Latin *avis* “bird”, Greek  $\alpha\iota\epsilon\tau\acute{o}\varsigma$  “eagle” <  $*awyet\acute{o}-$ , cf.  $\alpha\iota\beta\epsilon\tau\acute{o}\varsigma$  :  $\acute{\alpha}\epsilon\tau\acute{o}\varsigma$  · Περγαῖοι (Hesych.), etc.

Lit.: Schindler, Sprache 15, 1969, 158f; Pokorny 1959, 86.

37. Semitic  $\sqrt{w/y-d-s}$  “to know” > Old Akkadian *wadû*, Akkadian *edû*, *idû*; Ugaritic, Phoenician *yds*, Hebrew *yādas*, Aramaic *yādas*, Syriac *īdas*, Mandaic *yda* “to know”; Arabic *raydasa* “to inform”; Sabaic *yds* “to find out”, *h-yds* “to inform”; Šheri *redas* “to know”, Soqotri *redas* id.; Geez *raydasa* “to make know, inform, tell” (Leslau 1987, 626) ||| Egyptian *yds* “klug” (WPS 365) ||| Cushitic: (East) Afar *das-* & *ḍas-* “to know”, Saho *dis-* & *des-* “to know, understand, can”; Somali *das-* “to may, understand” (Dolgopolsky 1973, 316: East Cushitic+Semitic)

IE  $*d^heih-$ / $*d^hyeh-$  > Vedic *abhí* ... *dīdhaya* “ich überdenke”, *prāti* ... *dīdhima* “wir erwarten”; Avestan 3sg. *ā-didaiia* “betrachtet”, Khotanese *daiyā* “sees”; Albanian *di* “knows” (Pokorny 1959, 243; LIV 141–42).

38. Semitic  $\sqrt{w-l-s}$ : Arabic *walasa* “to grow frivolous”, *walisa* “to be greedy for”, *walas* “violent desire, passion, love” (Steingass 1988, 1232); Tigray *wäläsa* “allumer” (DRS 553) ||| Chadic: (West) Sura *wal*, Mupun *wāl* “aimer” (Orel & Stolbova 1995, 526)

IE  $*welH-$ : Avestan *-varatā* “wählt”; Latin *uolui* “wollte”; Gothic *wili* “will”; Old Lithuanian *velmi* “wünsche, will”; Old Church Slavonic *veljō* : *velēti* “wollen; befehlen” (LIV 677–78; Pokorny 1959, 1137).

Lit.: Cf. Möller 1911, 265–66 & Illič-Svityč 1967, 340: Arabic  $\sqrt{w-l-s}$  + IE.

### Afroasiatic $*h$

39. AA: Semitic *h*-plural of biradical nouns: Hebrew  $\text{מַגְדֵּי}$  “Mägde” = Syriac *amhātā*; Syriac *šēmāhē* “Namen”, *abāhē* & *abāhātā* “Väter” = Arabic *abahāt*, Sabaic *ʾbhy*; Arabic *sitāh* “Ärsche”, *šifāh* “Lippe”, *šiyāh* “Schafe”, *miyāh* “Gewässer”; further *ilāh* “Gott” (originally pl.) = Hebrew *lōhīm*, Syriac *allāhā* (Brockelmann 1908, 455). It is tempting to add the Cushitic plural ending  $*-a$ , attested in Beja and East Cushitic: Arbore, Elmolo, Oromo, Konso, Dirayta (Zaborski 1986, 298).

IE  $*(e)H_2$  >  $*-ā$  ‘inanimate plural / collective’: Vedic *yugā*, Greek  $\zeta\upsilon\gamma\acute{\alpha}$ , Latin *iuga*, Gothic *juka*, Old Church Slavonic *iga* “yokes”, Hittite *genuwa* “knees”, besides  $*-H_2$  in the consonant stems, e.g. Vedic *nāmāni*, Avestan *nāmani*; Greek  $\acute{\omicron}\nu\acute{\omicron}\mu\alpha\tau\alpha$  “names”, but  $*-ā$  in Latin *nōmina*, Gothic *namna*, Old Church Slavonic *imena* (Brugmann 1911, 231–38).

40. Biblical Aramaic *hāk* in *yahāk* “he goes” (Leslau 1987, 220); Arabic dial. (Maghreb) *hāk* “être bon marcheur, rapide (cheval)”; Arabic *hayyaka* “se dépêcher, aller vite” (DRS 387, 401).

IE  $*H_2eḡ-$  > Old Indic *ājati* “drives”, Avestan *azaiti* “drives, leads away”; Armenian *acem* “I lead, bring”; Greek  $\acute{\alpha}\gamma\omega$  “I lead”; Latin *agō* “I lead, drive, deal with, be engaged in”, Oscan *acum* “agere”; Old Irish *ad-aig* “adigit” ( $*ad-aget$ ), Old Welsh *agit* “goes” ( $*agīti$ ); Old Nordic *aka* “to travel”; Tocharian AB *āk-* “to lead, drive, guide” (Pokorny 1959, 4f; Adams 1999, 36).

41. Semitic *\*harar-* “mountain”: Emar Akkadian *harru*; Ugaritic *hr* “mountain”; Phoenician-Punic *hr*; Hebrew *har* “mountain” (DUL 345; HAL 254; DRS 459) ||| Egyptian *hr* “Waldgebirge” (WPS 285)

IE *\*H<sub>3</sub>er-/\*Hor-*: Hittite *aru-* “high” (: *arai-* “to rise, lift, raise” — so Puhvel 1–2, 177–78; cf. LIV 238 and 299–300: *\*H<sub>1</sub>er-* or *\*H<sub>3</sub>er-*); Greek ὄρος “Berg, Anhöhe”, ὀρέστερος “auf den Bergen lebend”; Middle Irish *or*, acc. pl. *uru m.* “coast, bank”, *airer* “coast, haven” < *air-* + *or*, Welsh *ôr*, pl. *oroedd* “limit, edge, brim, margin”, Old Breton *or*, pl. *-ion* “edge”, Cornish *or*, pl. *-yon* id. (Mann 1984–87, 890; Pedersen I, 207 & II, 51).

42. Egyptian (Old Kingdom) *hrw* “day” (Wb. II, 496–97) ||| Berber: (South) Ahaggar *tarut*, pl. *tirutîn*, Ayr *tarut* & *terut*, Taneslemt *tārāhut* “heures du milieu du jour” < *\*tā-ruHūH-t* & *\*tā-raHūH-t* respectively (Prasse 1974, 177, 213–15) ||| Chadic: (Central) Buduma *yīrōw*, *yērāu*, *īrau* “day” (Lukas) || (East) Dangla *veriyo* “noon” (OS #1173: Egyptian + Chadic); cf. Semitic  $\sqrt{w-h-r}$  &  $\sqrt{n-h-r}$  “to shine”: Mandaic *ywr* “light, brightness, brilliance”, Hebrew *nəḥārā* “light of day”; Arabic *wāḥir* “shining, white” & *nahār* “clear day, morning” < Aramaic (HAL 397, 676–77; Cohen 1947, #500bis.: Egyptian + Semitic; EDE I, 139: plus Chadic)

IE *\*H<sub>2</sub>reu-*: Old Indic *ravi-* m. “sun, god of the sun”; Armenian *arew* “sun”, cf. also the compound *areg-akn* id., lit. “sun-eye” (Pokorny 1959, 873). Related could also be Old Irish *ré* “interval, (time) space”, sometimes about the lunar phases, from here also “moon” & “month”; pl. *inna rei* “(sky) space”. The Celtic protoform *\*rewiā* (Vendryes, LEIA 1974, R–10) is compatible with the preceding forms (MacBain 1911, 288). The key to the etymology could be found in Hittite *harwanai-* “to be clear; to dawn” (Eichner 1978, 156; EWAI II, 440).

43. Semitic  $\sqrt{h-w-y}$ : Ugaritic *hwy* “to want”; Hebrew *ḥawwā* n. “(evil) desire”; Arabic *ḥawīya* “to love, desire”, *ḥawā(-n)* “desire, passion, love”; Mehri *šəḥwū* “aimer” (DRS 386; DUL 350)

IE *\*H<sub>2</sub>eu-*: Vedic *āvati* “is pleased”, *āvi-* “favorable”; Armenian *awiwn* “libido, fury, enthusiasm”; Greek ἐνήης “kind, gentle”, ἄητας “jeune homme aimé”; Latin *auēō*, *-ēre* “to long for, desire”; Welsh *awyddu* “to desire”; Old Runic *auja* “good fortune”, Gothic *awi-liuþ* “thanks” (Pokorny 1959, 77–78; LIV 274).

Lit.: Illič-Svityč I, 241–42, #100.

44. Semitic  $\sqrt{b-h-w/y}$ : Arabic *bahiyy* “beautiful, shining, resplendent”, *bahā* “to be beautiful, shine with beauty” (Steingass 1988, 148); Amhara *bāha* “sorte de pierre blanche”, *buha bag* “mouton qui a une tache sur le front” (DRS 47)

IE *\*b<sup>h</sup>eH<sub>2</sub>-* “glänzen, leuchten, scheinen”: Vedic *bhāti* “glänzt, strahlt”, Avestan *frauuāiti* “leuchtet hervor”; Greek φάντα : λάποντα (Hesych.) “leuchtend” (LIV 68; Pokorny 104–05).

Lit.: Brunner 1969, 126, #704: Arabic + IE.

45. Semitic  $\sqrt{g-h-y}$ : Syriac *gəhā* “to flee, escape”, Mandaic *gha* “to flee from”; Soqotri *ge* “to flee, escape”; Geez *g<sup>w</sup>ayya* “to run (away)” (Leslau 1987, 209)

IE *\*g<sup>h</sup>eH(y)-* > Old Indic *jihīte* “springt auf, begibt sich zu”; Armenian *gam* “I come”; Greek κυχάνω “ich erreiche, erlange, treffe an”, aor. κυχήτην “kamen heran”; Old High German *gān* & *gēn* “to go” < *\*gai-* (LIV 196: *\*H<sub>1</sub>*; Kluge & Seebold 1999, 307).

46. Semitic  $\sqrt{k-h-n}$ : Arabic *kahana* & *kahuna* “to foretell the future” (Steingass 1988, 899); nominal formations usually designate the “priest”: Ugaritic *khn*; Hebrew *kohen*; Aramaic *kāhnā*; Arabic *kāhin*; Geez *kāḥən* (Leslau 1987, 278; HAL 461–62) ||| Cushitic: (North) Beja *kwinh* “to tell” or *kehun* “to like, have affection for” (R. Hudson)

IE \* $\hat{g}neH_3-$  > Vedic *jānāti* “kennt, weiss”, Avestan *-zānənti* “erkennen”; Armenian *caneaw* “erkannte”; Hittite *ganess-* “erkennen, herausfinden”; Greek *ἐγνων* “erkannte”; Albanian *njoh* “ich kenne”; Latin (*g*)*nōuī* “erkannte, weiss”; Gaulish *gníou* “I know” (Châteaubleu), Old Irish *ad-gnin* “kennt”; Gothic *kunnan* “kennen”; Lithuanian *žinoti* “kennen, wissen”, Old Church Slavonic *znati* id.; Tocharian A *knānat* “erkennst” (LIV 168; Pokorny 1959, 168–69).

47. Semitic \**nahar-* “river”: Akkadian *nāru* “river”; Ugaritic *nhr*; Hebrew *nāhār*; Old Aramaic *nhr*, Syriac *nahrā* id.; Arabic *nahar* & *nahr* id., *nahara* “to gush, flow”; Sabaic *nhr* “river” (Møller 1909, 94; HAL 676) ||| Egyptian *nhr* “laufen, rennen, fliehen (\*hinwegströmen)” (WPS 702).

IE \**nerH-* “untertauchen” (LIV 454; Pokorny 1959, 766, 975–76); cf. Old Indic (Manu 1, 10) pl. *nārāḥ* “waters” (KEWA II, 154–55); Lithuanian *narà* “rivulet, brook” (Nevskaja 1977, 54)

48. Semitic  $\sqrt{\text{š-h-r}}$ : Hebrew *šōhēr* “seeker, searcher” (Klein 1986, 644), Jewish Aramaic *šāhar* “suchend” (Møller 1911, 212), Arabic *sahara* “to be awake, watch over” (Steingass 1988, 514)

IE \**serH<sub>2</sub>(w)-*: Avestan *ni-šanharatū* “soll Acht haben”, *nī haraitē* “bewahrt sich”, Lydian *sarēta-* “Beschützer”, cf. Hittite *sarhuwant-* “Fötus” = “geschützt”, Greek *ᾠρονται* “haben Acht auf” (Rasmussen 1989, 98; LIV 524: \**ser-*).

Lit.: Illič-Svityč II, 107, #348: Semitic+IE.

### Afroasiatic \**ḥ*

49. Egyptian *ḥspj* “Nil; Überschwemmung” (WPS 295–96); maybe related to Arabic *ḥaffat* “edge, border, rim, side” (Steingass 1988, 285), if this was originally “rim of the river” vel sim. (cf. the same semantic dispersion in Latin *rīpa* “Ufer” : Spanish *ribera* “Ufer, Strand, Bach”, French *rivière* “Au”)

IE \**H<sub>2</sub>e(H)p-/\*H<sub>2</sub>(H)ep-*: Vedic *áp-* f. “water”, nom. pl. *ápas*; Avestan nom. sg. *āfš* id., acc. pl. *apas-čā*, Old Persian *apiyā* “ins Wasser”, Sogdian *ḥp*, Middle Persian *āb* id.; Old Prussian *ape* “Bach, kleiner Fluss”; Tocharian AB *āp* “water, stream, river” (Pokorny 1959, 51; EWAI 81). There is also a variant \**H<sub>2</sub>eb<sup>(h)</sup>-* (Pokorny 1959 1; Beekes, EIEC 486): Hittite *hap(a)-* “river”, Cuneiform Luwian *hāpa-* ~ *hapā-* “river, stream”, Palaic *hāpnas* “river”; Latin *amnis* f., later m., abl. *amne* “river, stream” < \**abni-*; Old Irish *a(u)b* f. < \**abū*, acc. sg. *abinn* < \**aboneN*, gen. sg. *abae* “river” < \**abens*, dat. pl. *aibnib* < \**abenobi*); further Old Irish *abann* id., Middle Welsh *afon* id., Old Cornish, Middle Breton *auon* (\**abonā*). The difference \**-p-* vs. \**-b-* was explained by Eric Hamp (1972, 36–37) who identified here the influence of the possessive suffix \**-H<sub>3</sub>on-*: \**H<sub>2</sub>ep-H<sub>3</sub>on-* “having flowing water”. A similar process \**-pH<sub>3</sub>-* > \**-b-* has been supposed for the verb “drink”, where the root \**peH<sub>3</sub>-* is reconstructed, redupl. \**pi-pH<sub>3</sub>o*: Vedic *pībati* “drinks”, Latin *bibō* “I drink”, Faliscan *pipafo* “I will drink” /*bibāfō*/ (regressive assimilation from \**pibō*), Old Irish *ibid* “drinks” < \**pibeti*, Cornish *evaf* “I drink”, st̥rbret. *euaff* id. < \**pibami* etc. (Pokorny 1959, 840; LIV 462–63).

50. AA: Cushitic: (East) \**ḥam-/\*ḥum-* > Saho-Afar *uma*, Somali *ḥun, ḥum-* “bad, evil, worthless”, Oromo *hamaa* id. (Sasse 1979, 38) | (South) Burunge *ḥam-*, Alagwa *hamu* “hardship, distress” (Ehret 1980, 379, 334)

IE \**H<sub>2</sub>eumo-* or \**Houmo-*: Old Icelandic *aumr* “poor, miserable”, Tocharian A *omāskem* “evil”, B *aume* “misery”, *aumiye* “fever” (Adams 1999, 132).

51. Semitic  $\sqrt{\text{ḥ-m-r}}$  “be red”: Akkadian *emēru* “to become red”; post-Biblical Hebrew *ḥāmarmar* “to become red” (figurative meaning shift from “to be hot, parched”); Arabic *ḥammar*

“red”; Sabaic *ḥmr-t* “red”; Geez *ḥamar* “red berry”, Tigre *ḥamär* “red-brown”, Tigray *ḥamray*, *ḥamär* “red” (Leslau 1987, 234)

IE *\*H<sub>2</sub>m̥r-u-* /*\*H<sub>2</sub>m̥rwo-*: Luwian *marway(a)-* “rot”, *maruwai-* “röten, rot färben”, participle *marussam(m)a-* “rot (gefärbt)”, cf. the hydronym *Marassantiya-*, written also *ÍD.SA<sub>5</sub>* “Red River”, corresponding to the antique river name Halys and today’s *Kızıl Irmak*, in Turkish “Red River” (Tischler 2001, 102); Greek *ἀμαυρός* “dunkel, trübe, schwach”; ? Latin *umbra* “shadow, shade” which is derivable from *\*omrā*.

52. Cushitic: (North) Beja *herka* “upper arm, shoulder” (Roper) = *hárka*, *hérka* “Arm, Oberarm, Schulter, Achsel” (Reinisch) || (East) *\*ḥar[q]-* “arm, hand” > Afar *ḥaray* “upper arm”, Saho *ḥaray* “arm”; Oromo *harka* “hand, lower arm”, Konso-Mashile *harka*, Dirayta *hark* “hand”; Harso-Dobase *ḥarkó*, pl. *ḥárqe*, Gollango *ḥarqó*, Gawwada *ḥarkó* “arm, hand”, Tsamakko *ḥaarko* id. (Savà) — see Lamberti 1987, 536; East Cushitic > Gurage *aräq*, Harari *ḥaräq* “arm above elbow” (Leslau 1963, 86 & 1979, 90) || (South): Mbugu *mharéga* / *mharéya* “arm” (Ehret)

IE *\*H<sub>2</sub>erk-* “to hold, keep”: Hittite *hark-* “to hold, keep, have”; Armenian *argel* “hindrance”; Greek *ἀρκέω* “I ward off”; Latin *arceō* “I hold in, shut up, keep at a distance”, *arx* “stronghold, fortress” (Puhvel, HED 3, 145–57; Pokorny 1959, 65–66; LIV 273)

53. Semitic  $\sqrt{h-s-w}$  &  $\sqrt{h-s/\acute{s}-s/\acute{s}}$ : Tigre *ḥašäwä* “to be dry (foliage)” (Leslau 1958, 22); Arabic *ḥašša* “to mow”, *ḥašīš* “dried grass or foliage”; Hebrew *ḥāšāš* id. (HAL I, 363) ||| Berber: Tamashek (Tuareg of Mali) *hùs* “be dry!” (Heath)

IE *\*H<sub>2</sub>s-(H)eus-*: Vedic *śúśyati* “wird trocken”, Avestan conj. med. *haošātaē* “soll austrocknen”; Greek Attic *αῦος* “dürr, trocken”; Albanian *thanj* “trockne”; Latin *sūdus* “trocken, heiter”; Old English *sēar*, Middle Low German *sōr*, Norwegian *søyr* “trocken”; Lithuanian *saūšas*, Latvian *sàuss*, Old Church Slavonic *suxv* “trocken”, *sušq* : *sušiti* “trocken machen” (LIV 285: *\*H<sub>2</sub>seus-*; Pokorny 1959, 880–81).

54. Semitic: Arabic *ḥatta*, *ḥattay-* “until, as far as” ||| Cushitic: (East): Dobase, Gollango *ḥayto* “aussen”

IE *\*H<sub>2</sub>et-* / *\*H<sub>2</sub>ot-*: Vedic *āti* “überhinaus; überaus, sehr”, *átas* “von hier”, Khotanese *ata* “excessively”; Hittite *addu* “further”; Greek *ἀτάρ* “nevertheless, but”; Latin *at* “but; whereas”; Old Irish *aith-* “again”; Gothic *aþ-þan* “but”; Lithuanian *at(a)-* “back”; Old Church Slavonic *otb* “from” (Pokorny 1959, 70).

Lit.: Blažek 2004, 9–10: AA+IE.

55. Semitic *\*ḥal/iṭw-* “arrow” > Akkadian *ūšu*, *uššu*; Ugaritic *ḥz*; Phoenician *ḥš*, Hebrew *ḥeš*; Aramaic *ḥṭ*; Arabic *ḥazwa* & *ḥuzwa*, pl. *ḥizāʾ* “arrow”; Sabaic *ḥzy-n* “archer”; Geez *ḥašš* “arrow”, Harari *ḥināč* id. (Leslau 1987, 247)

IE *\*(H)isw/u-* > Old Indic *iṣu-*, Avestan *išu-*, Greek *ῥός* “arrow” < *\*iσfός*; cf. Hittite *ishuwa(i)-* “to shed, throw, scatter, pour” (Puhvel 3, 404–09).

Note: Dolgopolsky (p.c.) thinks about borrowing from Semitic into IE.

56. Semitic  $\sqrt{h/h-w-ṣ}$ : Arabic *ḥāwaṣa* “to consider, examine”; Geez *ḥawwaṣa* “to look on/after, peep, visit, watch, observe” (Leslau 1987, 250)

IE *\*H<sub>2</sub>ueis-* “to hear” > Greek *αἰσθάνομαι* “wahrnehmen”, *ἐπάϊστος* “gehört, bekannt, ruchbar”, Homeric *ἄϊον* “hörte”, Latin *audiō* : *audīre* “hören” < *\*auiz-d<sup>h</sup>-iō* (LIV 288; Pokorny 1959, 78).

57. Egyptian (Pyr) *ḥw.t*, *ḥy.t*, (MK) *ḥwy.t* n. “rain”, *ḥ(w)y* “to rain”, *ḥwy* “to flow, flood”, (Pyr) *ḥ(w)y* n. “flood (of river)” ||| Chadic: (West) Siri *h<sup>w</sup>i* “rain” (Skinner) || (East) Sumray *ro* “to rain” (Jungrauthmayr)

IE *\*H<sub>2</sub>eu-*: Hittite *he(w)u-*, *he(y)aw-* “rain” (Puhvel, HED 3, 301–04; he rejects the comparison of Hittite with other IE items proposed by Shevoroshkin, *Orbis* 17, 1968, 467); further *\*H<sub>2</sub>eu(o)nt-* (Pokorny 1959, 78; Beekes, EIEC 539) > Vedic *avatá-* “well, spring; cistern”, cf. also the river-name *Avantī-* recorded only by lexicographers (EWAI I, 130–31); ?Gaulish: river nymph *Aventia*; Latvian *avuōts* “fountain, spring” (Nevskaja 1977, 18) < *\*auontos*; cf. Lithuanian river *Avantà*. Related are probably also the Indo-Iranian forms without *-t-*: Vedic *aváni-* f. “bed of river, river, stream”; Sogdian *ʾwʾnh* [*āwān*] “river”, Khotanese *vañi* “streams” (EWAI I, 131).

Lit.: Cuny, *Revue Hittite et Asiatique* 6, 1942–43, 101: Egyptian + Hittite; Dolgopolsky p.c.: AA + Hittite.

58. Semitic  $\sqrt{h-y-w}$ : Ugaritic *ḥyy* “to live”; Phoenician *ḥwy* id., *ḥy* “living”, *ḥym* “life”, Hebrew *ḥāyāw* “to live”; Syriac *ḥayā* id.; Arabic *ḥay(i)ya* id., *ḥayāh* “life”; Sabaic *ḥyw/y* “to live”; Mehri *ḥayōt* “life”; Geez *ḥaywa* “to live” (Leslau 1987, 252)

IE *\*H<sub>2</sub>ey-u-*: Vedic *āyu* “Leben, Lebenszeit”, Old Avestan *āiiū*, gen. *yaoš* id. (*\*H<sub>2</sub>oyus* : *\*H<sub>2</sub>yous*); Greek *αἰών* id., *αἰεί* “immer”, Cypriotic *αἰφει* id.; Latin *aevum* “a long time, an age”; Gothic *aiws* “time, eternity”, Old Norse *ævi* “life, age” (Pokorny 1959, 17f; Wodtko, NIL 277–78).

Lit.: Møller 1909, 3: Semitic + IE; Illič-Svityč I, 242–43, #101: AA+IE.

59. Cushitic  $\sqrt{h-y-w}/\sqrt{h-w-y}$  “to give”: (North) Beja  $\sqrt{h-y-w}$  id., cf. the negative imp. *ba-hiiwa* | (Central) *\*aw-* id. (Appleyard) | (East)  $\sqrt{-hiw-}/\sqrt{-huw-}/\sqrt{-huy-}$  id.: Saho *-ḥoy-*, Afar imp. *aḥuw / aḥuy*; Sidamo *uw-*, (*w*)*oy-*, Hadiyya, Gedeo, Burji *uww-* id. (Sasse 1982, 185–86, 230) || Berber  $\sqrt{H-w-y}$ : (South) Ahaggar *awi* “to bring, carry”, Ghat *awi d* “bring”; (North) Iznacen, Rif *awi* “to carry (away)”; Zenaga *yuwa-ddāh* “brings” (Dolgopolsky, p.c.: Cushitic + Berber)

IE *\*H<sub>2</sub>ey-/\*H<sub>2</sub>oy-*: Hittite 1sg. *pēhhi* < *\*pe-H<sub>2</sub>oy-H<sub>2</sub>ei*, 3sg. *pāi* < *\*pe-Hoy-*, Cuneiform Luwian *pīya-* “to give”, Hieroglyphic Luwian *iyasa-* “to buy”, Lycian *ijetē* “kaufte”; Greek *αἴνυμαι* “greife, nehme”; Umbrian *aitu* “soll aussondern” < *\*ay-ye-tōd*, Oscan *aiti-* “Anteil”; Tocharian B conj. *āyu*, A *em* “werde geben”, B *āyor* “gift” (LIV 229: *H<sub>1</sub>ai-*; Adams 1999, 100: *\*H<sub>4</sub>ei-*).

60. Semitic  $\sqrt{b-w-ḥ}$ : Arabic *bāḥa* “to be known, become public; make known, publish, divulge”, *būḥ* “root, origin; pudenda, sexual intercourse” (Steingass 1988, 150); Geez *boḥa* “to be seen, revealed” (DRS 51; Leslau 1987, 115)

IE *\*b<sup>h</sup>weH<sub>2</sub>-*: Vedic *ābhūt* “ist geworden”, Old Avestan conj. *buuaitī* “wird werden”; Grk *ἔφωv* “wuchs, wurde, entstand”; Latin *fūi* “war”; Old Irish *boí*, Middle Welsh *bu* “war”; Old English *bēom* “bin”; Lithuanian *būvo* “war”; Old Church Slavonic *byti* “sein” (Pokorny 146–50; LIV 98–101).

Lit.: Møller 1911, 36–37: Semitic+IE; he also thought about Semitic  $\sqrt{b-w-}$  “to come, enter” (DRS 50). In this case the IE reconstruction should be *\*b<sup>h</sup>weH<sub>1</sub>-* (cf. Rasmussen 1989, 146).

61. Semitic  $\sqrt{g-ḥ-f}$ : Arabic *jaḥafa* “to gather, take out”; Šxeri *ḡaḥaf* “to take everything”; Geez *gaḥafa* “to take away, remove, carry off” (Leslau 1987, 186–87; DRS 113; Steingass 1988, 220)

IE *\*(ḡ)<sup>h</sup>eH<sub>2</sub>b-* “ergreifen, nehmen”: Latin *habēō*, *-ēre* “haben, halten”, Umbrian *habetu* “soll halten”; Gaulish *gabi* “nimm!”, Old Irish *-gaib* “nehmen” (LIV 195; Pokorny 1959, 407–09).

Lit.: Møller 1909, 54: Arabic+IE.

62. Semitic  $\sqrt{l-ḥ-ḥ}$  &  $\sqrt{l-ḥ-l-ḥ}$ : Hebrew *laḥ* “moist, fresh”, post-biblic Hebrew *liḥle<sup>a</sup>ḥ* “to moisten”, Aramaic *laḥlaḥ*, Palestinian Syrian *lḥ* “moisture”, Arabic *ṣalahḥa* “to give continuous rain”, Geez *laḥaḥa* “to be humid” (Leslau 1987, 310)



IE *\*leH<sub>2</sub>-(w)-*: Hittite *lah(h)u(wa)-* “to pour”, *lilhu(wa)-*, Cuneiform Luwian *liluwa-* id. (LIV 401). Cf. also IE *\*leiH-* “to pour” (LIV 405–06) and / or *\*leuH<sub>3</sub>-* “to wash, bathe” (LIV 418).

63. Semitic  $\sqrt{l-p-h}$ : Arabic *lafaha* “to burn, scorch” (Steingass 1988, 923)

IE *\*leH<sub>2</sub>p-*: Hittite *lāpta* “glühte”; Greek *λάμπω* “leuchte”; Old Irish *lassaim* “flamme” < *\*lH<sub>2</sub>p-sk-*; Lithuanian *lópė* “Licht”, Latvian *lāpa* “Fackel”, Prussian *lopis* “Flamme” (LIV 402; Pokorny 1959, 652–53)

Lit.: Brunner 1969, 22: IE+Arabic.

64. Semitic  $\sqrt{m-l-h}$ : Ugaritic *mlh* “good, pleasant” (Segert 1984, 192) or “beauty” (DUL 548), Arabic *milh* “beauty, grace”, *malih* “pleasant, beautiful, fair” (Steingass 1988, 1054, 1059)

IE *\*melH-*: Greek *μάλα* “very”, *μᾶλλον* “more”, *μάλιστα* “mostly”, Latin *melior* “better”, *multus* “numerous”, Lithuanian *malonūs* “nice”, Latvian *milns* “very much” (Pokorny 1959, 720; Salmons & Adams, EIEC 236 — they add Hittite *malā(i)-* “to be favorable”).

Lit.: Illič-Svityč II, 41, #278: Arabic+IE.

65. Semitic  $\sqrt{n-h-y/w}$ : Hebrew *nāhā* “to lead”; Arabic *nahā* ( $\sqrt{n-h-w}$ ) “to turn and move in a certain direction; go aside, across” (HAL 685; Steingass 1988, 1107)

IE *\*neiH-* > Vedic *náyati* “führt”, Avestan *naieiti* “leitet, führt”; Hittite pres. sg. *nehhi, naitti, nāi* “führen” (LIV 450; Pokorny 1959, 760).

Lit.: Møller 1909, 92: Semitic + IE.

66. Semitic: Akkadian *puhālu* “male animal, stud” (of ram, bull, stallion, elephant, duck) (CDA 277); Ugaritic *p̄hl* “ass, jackass, stallion”, *p̄hlt* “mare”; Arabic *fahl*, pl. *fiḥāl, fuḥūl, fiḥālat* “stallion” (DUL 668; Steingass 1988, 777)

IE *\*poHl-/\*peH<sub>3</sub>l-*: Greek *πῶλος* “foal, filly”; Albanian *pelë* “mare”; Germanic *\*folan-* > Old English *folā*, Old Saxon & Old High German *folo* “foal” (Mann 1984–87, 973).

67. Semitic  $\sqrt{p-r-h}$ : Arabic *faraha* “to be cheerful, merry, content”, *farah* “joy, cheerfulness, merriment, contentment”, *farih* “rejoice” (Steingass 1988, 782); Mehri *fīrəḥ* “to be happy”, Jibbali *fērəḥ* id. (Johnstone 1987, 99).

IE *\*preiH<sub>2</sub>-/\*preH<sub>2</sub>y-* “to be beloved”: Vedic *priṇāti* “erfreut, befriedigt”, Old Avestan *fri-ianmahī* “wir befriedigen”; ?Greek *πραῦς* “gentle”; Old Irish *riar* “will, wish” Gothic *frijon* “to love”, *fri(j)apwa* “love”, *frijonds* “friend”; Latvian *priēks* “friend”; Old Church Slavonic *prijati* “to be favorable”, *prijatelb* “friend”, *prijaznb* “love” (Pokorny 1959, 844; LIV 490).

Lit.: Brunner 1969, 187, #997: Arabic + IE.

68. Semitic  $\sqrt{p-t-h}$  “to open”: Akkadian *petû & patû*; Ugaritic *p̄th*; Hebrew *pātaḥ*; Syriac *pataḥ*; Arabic *fataḥa*; Šxeri *fetaḥ*; Geez *fatha* id. (Leslau 1987, 170). Illič-Svityč (1968, 319, #1.32) adds Hebrew  $\sqrt{t-p-h}$  “to spread”. There are other parallels that confirm *\*t* as well as Illič-Svityč’s proposal that it is the result of metathesis from *\*√p-t-h*, namely Arabic *fataḥa* “to spread”, besides *tafaha* “to be overfull”; Syriac  $\sqrt{t-p-h}$  “to flatten out”; Akkadian *tepu* “to lay open”; Tigre *tafha* “to be flat, wide” (see HUL 378).

IE *\*petH<sub>2</sub>-*: Greek *πετάσσειμι* “breite aus, öffne”; Latin *pateō, -ēre* “offenstehen, sich erstrecken”, Oscan *patensins* “sie mögen öffnen” (LIV 478–79; Pokorny 1959, 824–25)

Lit.: von Raumer apud Delitsch 1870, 55 & Møller 1909, 112: Semitic + IE; Dolgopolsky 1964, 10 & Illič-Svityč 1967, 372: AA+IE+ other Nostratic.

69. Semitic  $\sqrt{r-w-ḥ}$ : Hebrew *rāwāḥ* “to extend, spread oneself out”; Syriac *rəwāḥ* “to be spacious”; Sabaic *h-rwḥ* “to expand”; Arabic *rawiḥa* “to be wide”; Tigre *rayaḥa* “to revive” (HAL 1195–96) ||| ?Egyptian *wʕḥ* “dauer” (Wb. I, 255; EDE I, 396: Semitic + Egyptian)

IE *\*reuH-*: Avestan *rauuaḥ-* “freier Raum”; Latin *rūs, rūris* “Land”; Germanic *\*rūma-* “Raum”; Tocharian B conj. *rewät* “du sollst/wirst öffnen” (LIV 510–11: *\*reuH<sub>1</sub>-*, but without any unambiguous evidence for *\*H<sub>1</sub>*; Pokorny 1959, 874).

Lit.: Dolgopolsky 1964, 4; Illič-Svityč 1967, 373; Brunner 1969, 133, #748: Semitic+IE.

70. Semitic  $\sqrt{š-k-ḥ}$ : Ugaritic *nškh* “which was found” > “which happened”, Aramaic  $\sqrt{š-k-ḥ}$  “to find” (Segert 1984, 202)

IE *\*seH<sub>2</sub>(ḡ)-*: Hittite *sākiya-* “offenbaren”, Latin *sāgiō, -īre* “spüren, wittern”, Old Irish *-saig* “geht nach, sucht”, Gothic *sokjan* “suchen” (LIV 520).

### Afroasiatic *\*ḥ*

71. Semitic  $\sqrt{ḥ-l-q}$ : Akkadian *ḥalāqu(m)* “to be lost; be destroyed”, *ḥulqu(m)* “lost property” (CDA 101); Ugaritic *ḥlq* “to perish, destroy; ruined” or “bad”; Geez *ḥalqa* “to perish, be wasted” (DUL 393–94; Segert 1984, 186; Leslau 1987, 261)

IE *\*H<sub>2/3</sub>elk-*: ?Armenian *alkatk* “poor, bad”; Latin *ulcīscor* “to take revenge”; Old Irish *olc* “bad” (LEIA O–20; LIV 264: *\*H<sub>2</sub>elk-* “abwehren”).

72. Semitic  $\sqrt{ḥ-l-y}$ : Mehri (*n*)*ḥáli* “sous”, Soqotri  $\sqrt{ḥ-l-y}$  “être assis sous quelque chose” (Leslau 1938, 175) ||| Cushitic: (East): Burji *hal-* “to fall (down), to set (of sun)”, Sidamo *halalla* “lowland”, *halliyyá* “deep” (Sasse 1982, 90)

IE: Hittite *haliya-* “to kneel down”, *halinu-* “to make kneel”, *halihlali-* “to genuflect” is derivable from *\*H<sub>2</sub>l-oi-* : *\*H<sub>2</sub>l-i-*, plus reduplicated *\*H<sub>2</sub>li-H<sub>2</sub>oi-* : *\*H<sub>2</sub>li-H<sub>2</sub>i-* (Kloekhorst 2008, 273–74). Possibly related: Tocharian A pl. *lyyā*, B *lyiyo* “member (of body)” (Adams 1999, 567).

Lit.: Illič-Svityč 1967, 351: Semitic+Hittite.

73. Semitic  $\sqrt{ḥ-n-ṭ}$ : Jibbali *xanṭi* “front (part)”, *xanṭún* “out, absent”, Mehri *xanṭāy* “front part of a camel”; cf. also Arabic *ḥunṭūl* “long horn or penis” ||| Egyptian *ḥnt* “face, front part; in front of”, Coptic *šant* “nose” (Wb. III, 302–06)

IE *\*H<sub>2</sub>ent-*: Vedic *ánti* “before”, *ánta-* “end, limit”; Hittite *hanza* “front (part)”, *hanti* “in front of, before”; Greek *ἀντί* “opposite”; Latin *ante* “before”; Lithuanian *antà* “on, upon”; Tocharian B *ānte* “surface, forehead” (Pokorny 1959, 48–50).

Lit.: Illič-Svityč 1967, 354: Egyptian+IE; Dolgopolsky apud Bomhard 2008, 665–66: AA+IE.

74. Semitic  $\sqrt{ḥ-ṭ-w}$ : Arabic *ḥaṭā* “to walk, step” (Steingass 1988, 331) ||| Egyptian *ḥtj* “to retire, retreat”

IE *\*H<sub>2</sub>et-*: Sanskrit *ataṣi* “wanderst”; Latin *annus* “year”; Gothic *aþnam* id. (LIV 273; Pokorny 1959, 69).

Lit.: Illič-Svityč 1967, 337: AA+IE.

75. Semitic  $\sqrt{ḥ-w-ʔ/y}$ : Arabic *ḥawiya* “to be empty, bare, desolate, waste”, *ḥawāʔ* “empty space” (Steingass 1988, 344) ||| Cushitic: (East): Oromo *hiyyeesa* “poor”, Dirayta *hiyy-akko / -ayt* id., Burji *hiyy-áyšil-áytee* id. (Sasse 1982, 98) || (South): Asa *-ḥaʔeta* “cheap, easy” (Ehret 1980, 308).

IE  $*H_1ueH_2-$ : Vedic *vāyati* “schwindet dahin, wird leer”; Greek *έάω* “lasse”; Latvian *vājēt* “schwach werden” (LIV 254)

Lit.: Bomhard 2008, 688–90: AA+IE.

76. Semitic  $\sqrt{h-n-h/h/h}$ : Akkadian *anāhu* “respirer difficilment, soupirer”; Ugaritic *anh* “complaining”; Hebrew *ne<sup>h</sup>nāhā* “soupirer”, *ānah*; Syriac *enah* “gémir”; Arabic *anaḥa* “breathes hard or violently”, *anaha* “haleter” (DRS 25; DUL 79) ||| Egyptian *nh* “to live”

IE  $*H_2enH_1-$ : Vedic *ániti* “atmet”; Albanian *ënj* “blase (auf)”; Gothic *-anan* “atmen”; Tocharian B *anāṣṣām* “atmet ein” (LIV 267; Pokorny 1959, 38–39)

Note: The etyma are compatible, assuming metathesis of the laryngeals in one of the families.

Lit.: Møller 1909, 6: Semitic+IE; Illič-Svityč 1971, #125: Semitic+Egyptian+IE+Svan *qan-* “to smell” with *q-* corresponding to AA  $*h$  (Illič-Svityč I, 149).

77. Semitic: Arabic *naḥšūš* “nostril”; Mehri *naḥšís* “nose” (Leslau 1945, 239)

IE  $*(H)neHs-/*Hne(H)s-$ ? “nose”: Vedic nom. du. *nāsā*, gen. du. *nasoh*, loc. sg. *nasi*; cf. the compound with the preceding lengthening *urū-nasa-* “having a wide nose”; Avestan *nāh-*, Old Persian acc. sg. *nāham*; ?Greek *νήσος*, Doric *νᾶσος*, Rhodos *νᾶσσος* “island” (cf. Old Nordic *nes* “headland”); Latin *nāsus* “nose”, *nāres* “nose; nostrils”; Old High German *nasa*, Old English *nosu*, Old Nordic *nōs* “nose”, besides Old Swedish *nōs* “snout”; Lithuanian *nósis*, Latvian *nāss* “nose”; Old Church Slavonic *nosъ* id. (Pokorny 1959, 755; EWAI I, 31:  $*Hnās-$ ; Kortlandt, *Baltistica* 21, 1985, 119:  $*neH_2s : *nH_2sos$ ).

78. Semitic  $\sqrt{s-l-h}$ : Ugaritic *slh* “forgiveness (of soul)” (DUL 761); Hebrew *sālah* “to forgive” (HAL 757)

IE  $*selH_2-$  “gnädig werden”: Armenian *alačem* “bitte”; Greek Homeric *ἴλαμαι* “stimme gnädig”, Aeolic *ἔλλαθη* “seid gnädig” (Pokorny 1959, 900; LIV 530)

Lit.: Brunner 1969, 105, #573: Semitic + IE.

### Afroasiatic $*\gamma$

79. Semitic  $*\gamma ar-(an-)$ : Akkadian *erû* ~ *arû* “eagle”, *urinnu* “eagle”; Old Aramaic *ar* “bearded vulture”, Jewish Aramaic *ar* “sp. of eagle”; Arabic *γaran-* id. (SED II, 59, 131)

IE  $*H_3er-(n-)$ : Hittite & Palaic *hāras*, gen. *hāranas* “eagle”; Greek *ὄρνις* “bird”; Old Irish *ilar/irar* “eagle” (metathesis from  $*arilo-$ ?); Old Norse *ari* ~ *orn* id.; Old Prussian *arelie*; Old Church Slavonic *orьlv* id. (Pokorny 1959, 325–26; Greppin, EIEC 173).

Lit.: Illič-Svityč 1967, 352: Semitic+IE.

80. Semitic  $*\gamma awr-$ : Ugaritic *γyr* “hollow, pit, depth” (DUL 328); Arabic *γawr* “depth, cavity, cave, valley” (Steingass 1988, 766); Soqotri *éyreh* “lake” (Leslau 1938, 308)

IE  $*H_2eur-$ : Greek *ἄναυρος* “waterless”; Old Norse *aurr* “Nass, Wasser”, Old English *éar* “sea” (Pokorny 1959, 80–81).

Lit.: Illič-Svityč 1967, 341: Semitic+IE.

### Abbreviations

AA: Afroasiatic, C: Central, IE: Indo-European, N: North, O: Old, S: South, W: West.

## Literature

- ADAMS, Douglas Q. 1999. *Dictionary of Tocharian B*. Amsterdam-Atlanta: Rodopi.
- APPLEYARD, David L. 2006. *A Comparative Dictionary of the Agaw Languages*. Köln: Köppe.
- BEEKES, Robert. 1995. *Comparative Indo-European Linguistics. An Introduction*. Amsterdam-Philadelphia: Benjamins.
- BIELLA, Joan C. 1982. *Dictionary of Old South Arabic: Sabaean Dialect*. Chico: Scholars Press.
- DE BERNARDO STEMPEL, Patrizia. 2007. Clb. *auzu* 'hausio', *auzeti* 'haurit', *auzanto* 'hauriant': water in the Botorrita bronzes and other inscriptions (K.0.8, 1.1, 1.3, 2.1, 5.1). *Palaeohispanica* 7, 55–69.
- BLAŽEK, Václav. 1995. The Microsystems of Personal Pronouns in Chadic, compared with Afroasiatic. In: *Studia Chadica et Hamitosemitica* (Fs. Herrmann Jungraithmayr), ed. by D. Ibrizimow & R. Leger. Köln, 36–57.
- BLAŽEK, Václav. 1997. Cushitic Lexicostatistics: The Second Attempt. In: *Afroasiatica Neapolitana. Papers from the 8th Italian Meeting of Afroasiatic (Hamito-Semitic) Linguistics* (Naples, January 1996), ed. by A. Bausi & M. Tosco. Napoli: Istituto Universitario Orientale, 171–188.
- BLAŽEK, Václav. 2004. Indo-European and Afroasiatic prepositions and related words: Common heritage or a result of convergence? In: *Nostratic Centennial Conference: the Pécs Papers*, ed. by Irén Hegedűs & Paul Sidwell. Pécs: Lingua Franca Group, 1–25.
- BLAŽEK, Václav. 2007. Beja historical phonology: Consonantism. In: *Omotiic and Cushitic Language Studies. Papers from the Fourth Cushitic Omotic Conference* (Leiden, April 2003), ed. by Azeb Amha, Maarten Mous & Graziano Savà. Köln: Köppe.
- BOMHARD, Allan R. 1984. *Toward Proto-Nostratic: A New Approach to the Comparison of Proto-Indo-European and Proto-Afroasiatic*. Amsterdam: Benjamins.
- BOMHARD, Allan R. 2008. *Reconstructing Proto-Nostratic. Comparative Phonology, Morphology, and Vocabulary*, Vol. 2. Leiden-Boston: Brill.
- BROCKELMANN, Carl. 1908. *Grundriss der vergleichenden Grammatik der semitischen Sprachen*, Bd. I: *Laut- und Formenlehre*. Berlin: Reuther & Reichard.
- BRUGMANN, Karl. 1911. *Grundriss der vergleichenden Grammatik der indogermanischen Sprachen*, II.2. Strassburg: Trübner.
- BRUNNER, Linus. 1969. *Die gemeinsamen Wurzeln des semitischen und indogermanischen Wortschatzes. Versuch eine Etymologie*. Bern – München: Francke.
- CDA – *A Concise Dictionary of Akkadian*, by Jeremy BLACK et al. Wiesbaden: Harrassowitz 2000.
- COHEN, Marcel. 1947. *Essai comparatif sur le vocabulaire et la phonétique du chamito-sémitique*. Paris: Champion.
- CUNY, Albert. 1913. Notes de phonétique historique: Indo-Européen et sémitique. *Revue de phonétique* 2, 101–132.
- CUNY, Albert. 1927. Réflexions sur le type  $\chi\rho\eta$  ( $\zeta\eta\nu$ , etc. ...) et le type  $\eta\chi\omega$ . In: *Symbolae Grammaticae in honorem Ioannis Rozwadowski*. Cracoviae: Uniwersytet Jagielloński, 85–94.
- CUNY, Albert. 1946. *Invitation à l'étude comparative des langues indo-européennes et des langues chamito-sémitiques*. Bordeaux: Éditions Bière.
- DELITSCH, Friedrich. 1870. *Studien über indogermanisch-semitische Wurzelverwandtschaft*. Leipzig.
- DOLGOPOLSKY [DOLGOPOESKIJ], Aron B. 1964. *Gipoteza drevnejšego rodstva jazykov severnoj Evrazii (problemy fonetičeskix sootvetstvij)*. Moskva: Nauka (VII Meždunarodnyj kongress antropologičeskix i etnografičeskix nauk).
- DOLGOPOLSKY [DOLGOPOESKIJ], Aron B. 1973. *Sravnitel'no-istoričeskaja fonetika kušitskix jazykov*. Moskva: Nauka.
- DOLGOPOLSKY, Aron. 1984. On Personal Pronouns in the Nostratic Languages. In: *Linguistica et Philologica*, ed. O. Gschwantler. Wien: Braumüller, 65–112.
- DOLGOPOLSKY, Aron. 1991. Two problems of Semitic historical linguistics. In: *Semitic Studies in honor of Wolf Leslau on the occasion of his eighty-fifth birthday*, ed. by Alan S. Kaye. Wiesbaden: Harrassowitz, 328–339.
- DOLGOPOLSKY, Aron. 1998. *The Nostratic Macrofamily and Linguistic Palaeontology*. Cambridge: McDonald Institute for Archaeological Research.
- DOLGOPOLSKY, Aron. 2008. *Nostratic Dictionary*. Cambridge: McDonald Institute for Archaeological Research, University of Cambridge (quoted as p.c.; a preliminary publication accessible on-line at <http://www.dspace.cam.ac.uk/handle/1810/196512>).
- DRS – *Dictionnaire des racines sémitiques*, by David COHEN et al. Paris-La Haye: Mouton 1970f.
- DUL – *A Dictionary of the Ugaritic Language in the Alphabetic Tradition*, by Gregorio DEL OLMO LETE & Joaquín SANMARTÍN, translated by Wilfred G.E. Watson. Leiden-Boston: Brill 2003.

- EDE — *Etymological Dictionary of Egyptian*, Vol. I: *A Phonological Introduction*, by Gábor TAKÁCS. Leiden-Boston-Köln: Brill 1999.
- EICHNER, Heiner. 1978. Die urindogermanische Wurzel \*H<sub>2</sub>reu- 'hell machen'. *Die Sprache* 24, 144–162.
- EIEC — *Encyclopedia of Indo-European Culture*, ed. by J. P. MALLORY & D. A. ADAMS. Chicago: Dearbon.
- EWAI — *Etymologisches Wörterbuch des Altindoiranischen*, I–II, by Manfred MAYRHOFER. Heidelberg: Winter 1986f.
- HAL — *The Hebrew and Aramaic Lexicon of the Old Testament*, 1–2, by Ludwig KOEHLER & Walter BAUMGARTNER. Leiden-Boston-Köln: Brill 2001.
- HAMP, Eric P. 1972a. Palaic *ḥa-a-ap-na-aš* 'river'. *Münchener Studien zur Sprachwissenschaft* 30, 35–37.
- HED — *Hittite Etymological Dictionary*, by Jaan PUHVEL. Berlin — New York: Mouton de Gruyter 1984f.
- HUDSON, Grover. 1989. *Highland East Cushitic Dictionary*. Hamburg: Buske.
- ILLIČ-SVITYČ, Vladislav M. 1967. Materialy k sravnitel'nomu slovarju nostratičeskix jazykov. *Étimologija* 1965, 321–373.
- ILLIČ-SVITYČ, Vladislav M. 1968. Sootvetstvija smyčnyx v nostratičeskix jazykax. *Étimologija* 1966, 304–355.
- ILLIČ-SVITYČ, Vladislav M. 1971/76/84. *Opyt sravnenija nostratičeskix jazykov*, I–III. Moskva: Nauka.
- JOHNSTONE, T.M. 1987. *Mehri Lexicon and English-Mehri word list*. London: School of Oriental and African Studies.
- JUNGRAITHMAYR, Herrmann & IBRISZIMOW, Dymitr. 1994. *Chadic Lexical Roots, II: Documentation*. Berlin: Reimer.
- KELLOG, Robert J. 1925. Some new Indo-European Coincidences in Hittite. *Ottawa University Quaterly Bulletin* 23/4 (unpublished ms.).
- KEWA — *Kurzgefasstes etymologisches Wörterbuch des Altindischen*, I–IV, by Manfred MAYRHOFER. Heidelberg: Winter 1956–80.
- KLEIN, Ernest. 1987. *A Comprehensive Etymological Dictionary of the Hebrew Language*. New York-London: MacMillan.
- KLOEKHORST, Alwin. 2008. *Etymological Dictionary of the Hittite Inherited Lexicon*. Leiden-Boston: Brill.
- KLUGE, Friedrich & SEEBOLD, Elmar. 1999. *Etymologisches Wörterbuch der deutschen Sprache*<sub>23</sub>. Berlin-New York: Walter de Gruyter.
- KURYŁOWICZ, Jerzy. 1927. *ə* indoeuropéén et *ḥ* hittite. In: *Symbolae Grammaticae in honorem Ioannis Rozwadowski*. Cracoviae: Uniwersytet Jagielloński, 95–104.
- LAMBERTI, Marcello. 1987. Some Konsoid Etymologies. *Anthropos* 82, 529–541.
- LEIA — *Lexique étymologique de l'irlandais ancien*, by Joseph VENDRYES et al. Dublin: Institute for Advanced Studies — Paris: CNRS 1959f.
- LESLAU, Wolf. 1943. South-East Semitic (Ethiopic and South-Arabic). *Journal of American Oriental Society* 63, 4–14.
- LESLAU, Wolf. 1945. The parts of the body in the modern South Arabic languages. *Language* 21, 230–249.
- LESLAU, Wolf. 1958. *Ethiopic and South Arabic Contributions to the Hebrew Lexicon*. Berkeley — Los Angeles: University of California Press.
- LESLAU, Wolf. 1963. *Etymological dictionary of Harari*. Berkeley-Los Angeles: University of California Press.
- LESLAU, Wolf. 1979. *Etymological dictionary of Gurage*, Vol. 3. Wiesbaden: Harrassowitz.
- LESLAU, Wolf. 1987. *Comparative Dictionary of Ge'ez (Classical Ethiopic)*. Wiesbaden: Harrassowitz.
- LIPÍŃSKI, Edward. 1997. *Semitic Languages outline of a Comparative Grammar*. Leuven: Peeters & Departement oosterse studies.
- LIV — *Lexikon der indogermanischen Verben. Die Wurzeln und ihre Primärstambildungen*, by Helmut RIX, Martin KÜMMEL, Thomas ZEHNDER, Reiner LIPP, Brigitte SCHIRMER. Wiesbaden: Reichert.
- MACBAIN, Alexander. 1911. *An Etymological Dictionary of the Gaelic Language*. Stirling: Mackay.
- MANN, Stuart E. 1984–87. *An Indo-European Comparative Dictionary*. Hamburg: Buske.
- MØLLER, Hermann. 1909. *Indoeuropæisk-semitisk sammenlignende glossarium*. Kjøbenhavn: Schultz.
- MØLLER, Hermann. 1911[70]. *Vergleichendes indogermanisch-semitisches Wörterbuch*. Göttingen: Vandenhoeck & Ruprecht.
- MØLLER, Hermann. 1917. *Die semitisch-vorindogermanischen laryngalen Konsonanten*. København: Høst & søn.
- NEVSKAJA, Lidija. 1977. *Baltijskaja geografičeskaja terminologija*. Moskva: Nauka.
- NIL — *Nomina im Indogermanischen Lexikon*, by Dagmar S. WODTKO, Britta IRSLINGER, Carolin SCHNEIDER. Heidelberg: Winter.
- OS — OREL, Vladimir & STOLBOVA, Olga. 1995. *Hamito-Semitic Etymological Dictionary*. Leiden-New York-Köln: Brill.
- PEDERSEN, Holger. 1905. Les pronoms démonstratifs de l'ancien arménien. *Det Kongelige Danske Videnskabernes Selskabs Skrifter*, 6. R., Historisk og filosofisk Afdeling VI.3, 303–353.

- PEDERSEN, Holger. 1909–13. *Vergleichende Grammatik der keltischen Sprachen*, I–II. Göttingen: Vandenhoeck & Ruprecht.
- POKORNY, Julius. 1959. *Indogermanisches etymologisches Wörterbuch*. Bern-München: Francke.
- PRASSE, Karl-G. 1973. *Manuel de grammaire touaregue*, VI–VII: *Verb*. Copenhagen: Akademisk Forlag.
- PRASSE, Karl-G. 1974. *Manuel de grammaire touaregue*, IV–V: *Nom*. Copenhagen: Akademisk Forlag.
- PUHVEL, Jaan. 1984/91/97. *Hittite Etymological Dictionary*, 1–2, 3, 4. Berlin-New York: Mouton de Gruyter.
- RASMUSSEN, Jens E. 1983. Determining Proto-Phonetics by Circumstantial Evidence: The case of the Indo-European laryngeals. In: *Papers from the Seventh Scandinavian Conference of Linguistics*, ed. by F. Karlsson. Helsinki, 371–384, reprinted in Rasmussen 1999, 67–81.
- RASMUSSEN, Jens E. 1989. *Studien zur Morphophonemik der indogermanischen Grundsprache*. Innsbruck: IBS 55.
- RASMUSSEN, Jens. 1999. *Selected Papers on Indo-European Linguistics*. Copenhagen: Museum Tusulanum Press — University of Copenhagen.
- REINISCH, Leo. 1895. *Wörterbuch der Beḍauye-Sprache*. Wien: Hölder.
- SASSE, Hans-Jürgen. 1979. The consonant phonemes of Proto-East-Cushitic (PEC): A first approximation. *Afro-Asiatic Linguistics* 7/1, 1–67.
- SASSE, Hans-Jürgen. 1982. *An Etymological Dictionary of Burji*. Hamburg: Buske.
- SED — *Semitic Etymological Dictionary* I–II, by Alexander MILITAREV & Leonid KOGAN et al. Münster: Ugarit-Verlag 2000–05.
- VON SODEN, Wolfram. 1995. *Grundris der akkadische Grammatik*<sub>3</sub>. Roma: Editrice Pontificio Istituto Biblico.
- STEINGASS, F. 1988. *A learner's Arabic-English Dictionary*. Jalandhar City: Gaurav.
- TISCHLER, Johann. 2001. *Hethitisches Handwörterbuch*. Innsbruck: IBS 102.
- Wb. — *Wörterbuch der ägyptischen Sprache*, by A. ERMAN & H. GRAPOW, I–VI. Berlin: Akademie-Verlag 1957–71.
- WPS — *Wortschatz der Pharaonen in Sachgruppen*, by Rainer HANNIG & Petra VOMBERG. Mainz: von Zabern 1999.
- ZABORSKI, Andrzej. 1986. *The Morphology of Nominal Plural in the Cushitic Languages*. Wien: Beiträge zur Afrikanistik, Bd. 28.

Статья является попыткой верифицировать реконструкцию для праиндоевропейского языка ларингальных согласных через внешнее сравнение с языками афразийской семьи. Автор, исходя из гипотезы дальнего родства между праиндоевропейским и праафразийскими языками, представляет набор из 80 бинарных сопоставлений, содержащих ларингальные согласные как в индоевропейской, так и в афразийской части. Анализ данных показывает, что (а) праиндоевропейский  $*H_1$  в целом соответствует праафразийскому  $*$ ; (б) праиндоевропейские  $*H_2$  и  $*H_3$  могут соответствовать любому из остальных афразийских ларингалов, причем  $*H_3$  встречается значительно реже, чем  $*H_2$  и, возможно, отражает какой-то старый позиционный вариант.

*Ключевые слова:* Индоевропейские языки, афразийские языки, ностратика, дальнее родство языков, ларингальная теория.