A note on another source of root-extension in IE. The "deep" morphology in OCS adv. *skvozě* 'through' and related cases

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Abstract. The present article carries on a series of studies in the root structure in PIE and focuses on the traces of root extension by means of particle absorption. The comparative derivational analysis of the secondary adverb/preverb OCS *skvozě* 'through' and the root-related family (so far, with no plausible etymological connection) helps identify in Balto-Slavic traces of the Proto-Indo-European spatial adverb and particle **(H)eǵʰ* of ablative semantics that was productive for a period of time in Balto-Slavic and later on in Slavic. In particular, Balto-Slavic shows the enclitic zero-grade allomorph, otherwise probably tangible in Skt. *ba-h-íṣ* 'outside' and beyond. In Balto-Slavic, **-ǵʰ* got fossilized in a series of prepositions (of which seven are discussed in detail) and likely amalgamated in a handful of Proto-Indo-European roots contributing to their compound semantics. In G. Dunkel's analysis of the Indo-European evidence summarized in LIPP, preference is given to the classification of the postponed **ǵʰ*-containing particle exclusively as a word or sentence intensifier, which is formally, as well as micro- and macro-semantically difficult. In this paper I revisit the conclusive material that makes it necessary to reanalyse the structure of a series of inherited spatial adpositions and adverbs. As I show, the morphosemantic template as found in the showcase example *skvozě* lives on in numerous formations scattered across the Indo-European branches, whereas formal discrepancies impeding hitherto conclusive reconstruction are accounted for in terms of paradigmatic variation of the encliticized anaphoric pronoun (*casus rectus* vs. *casus obliqui* of different gender forms). Judging from the panchronic perspective and adducing the evidence of modern Indo-European languages where the same morphosemantic template is fully productive allows us to draw a tentative model of the cognitive capture of spatial reference which appears basically invariant and is obviously conceived as natural by the speakers of Indo-European. The latter aspect, namely that of clear cognitive plausibility in linguistic reconstruction makes up one of the methodological standpoints the author promotes. Beyond that, the paper examines a number of further fossilized traces of **(He)ǵʰ* in secondary roots of 'piercing' semantics.

Еще один источник корневого расширения в праиндоевропейском: «глубинная» морфология ст.-сл. *skvozě* 'сквозь' и аналогичные примеры

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Аннотация. Настоящая статья продолжает серию исследований автором структуры корня в праиндоевропейском языке и рассматривает пример расширения корня вследствие абсорбции частицы-клитики. Сравнительный деривационный анализ вторичного адверба/преверба др.-ц.-сл. *skvozě* 'сквозь' и однокоренных слов, не имевших до сих пор однозначной этимологии, позволяет обнаружить в балтославянских языках «реликты» праиндоевропейского пространственного адверба и частицы *(H)eǵʰ* с аблативной семантикой, сохранявшего продуктивность на протяжении определенного периода в прабалтославянском и позже в славянских языках. В частности, для прабалтославянского восстанавливается энклитика в нулевой ступени, которая, видимо, входит в состав скр. *ba-h-íṣ* 'снаружи'. Прабалтославянское *-ǵʰ* обнаруживается в ряде предлогов (семь из которых анализируются в статье), а также как расширитель в составе нескольких праиндоевропейских корней, модифицирующий их семантическую структуру пространственным (чаще всего аблативным) компонентом.

Ключевые слова: расширитель корня, универбация, морфология, локативные частицы, клитики.

1. Instead of an introduction

About a decade ago Prof. N. N. Kazansky and Prof. H. Eichner initiated a wide-scale research project into one of the darkest "grey zones" of the Proto-Indo-European morphology and root structure — the so-called root

extensions — that resulted in successive co-operation on the subject, which I had the pleasure to be part of from the start. In 2016 the international workshop "Root-extensions in Indo-European" was held following the Main conference of the Indo-European society that hosted insightful talks by workshop participants and highlighted the intermediate results of the associated research group. The contributions featured the broad scope of the subject matter and many innovative approaches in disentangling root-structures palpable in the attested forms. The workshop also showed how much work was still ahead. On my part, the theoretical framework developed during this time, as well as the accumulated factual evidence considerably facilitated the work on morphological and lexical reconstruction, literally "opening new horizons" and providing the "missing links". In fact, all my investigations since the beginning of the project and after its official completion incorporated to a different degree the research results, both factual and methodological. In this sense, the present small contribution owing its results to the same paradigm brings to discussion another piece of evidence of trapped morphology discernible in the Indo-European comparison and is dedicated to prof. Kazansky's special interest in Proto-Indo-European root-structure[1] with warmest wishes *ad multos annos*.

2. OCS *skvozě* 'through' and its derivational family

The Old Church Slavonic adverb of manner of action and preposition *skvozě* (*skvězě*[2]) 'through, throughout' also well preserved in South and East Slavic bears witness to the process of syntactic simplification and semantic "flattening" at the pre-attested stage of Slavic. Traditional proposals of the derivational structure and the etymological affiliation have not

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[1] Particularly, in the role of particles and adpositions [Kazansky 1990: 4–5].

[2] According to [SJS, 4: 88] the root vowel *ě* appears just once in Zogr. Mc. 2.23 in a line with numerous *ě*, whereas other occurrences of the word in the same manuscript show the *-o-* root-grade. Therefore, it cannot be taken as evidence for the appealing long *e*-grade survived in Slavic (contra Snoj in [SES: 685]).

been elucidating so far. The etymon is not mentioned in [EDSIL], while [REW, 2: 636] and [ERHSJ, 3: 268] offer no etymological analysis except for the notice that a wider distributed and semantically adjacent OCS *skrozě*, better survived in West Slavic, apparently results from the contamination of the former and the preposition **čers/zъ* presumably continuing PIE **(s)kert-* (see in detail below). In the article on Sln. *skǫ̑ze* and *skvǫ̑žnja*, M. Snoj implies that the last root radical (Slavic *-z-*) does not belong into the structure of the original root, since he tentatively connects the word to OHG *schouwōn* 'to watch out, to look' < PIE **skeu̯-*, leaving the closing laryngeal out of the discussion and hypothesizing about the putative PSl. **skvogǻ* [Snoj 1983; SES: 685, 687]. Even if we question the suffixation with **-g-* [3] (cf. [Matasović 2014: 85, 159–160]) and amend Snoj's reconstruct with the due closing **-h₁* of the corresponding PIE root **skeu̯h₁* 'to perceive, observe' (OCS *čuti*), it does not appear to be the best candidate for the root continued in OCS *skvozě* and its cognates other than (and older than) the secondary verb *skoznováti* 'to watch, observe' found in Kajkavian dialects, which obviously impacted the starting point of Snoj's reconstruction. [4] The derivational family in Slavic comprises the following evidence:

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[3] Snoj extracts an unparalleled Proto-Slavic suffix *-g-* in comparison to Proto-Slavic **strǘga* 'stream' and 'deepest channel of a river' [SES: 687] which is a rather weak evidence for a separate affix (otherwise isolated), since **struga* is very likely an early Slavic contamination product of **stru-já* 'stream, canal' (OCS *struja*, Lith. *sraujà,* cf. Gk. ῥόος to PIE **srew-* 'flow, stream', [LIV²: 588]) and **strъg-ja > *strъža* 'core, deepest channel of a river, main current' ([EDSIL], *strъžь*), the original meaning being 'core', cf. outside Slavic OPr. *strigeno* 'brain, mark', Lith. *strìgti* 'penetrate, irrupt' [PKEŽ: 886; SEJL: 1224].

[4] The proposal to trace Sl. *skvozě* back to the PIE **(s)keu̯* (*+h₁*) (cf. [LIV²: 561]) does not hold upon a closer diachronic analysis of the evidence outside the Kajkavian idioms (see below). Moreover, the root **(s)keu̯h₁* is continued in Slavic with no reflexes of the *s*-mobile and with a completely different semantic development. Tracing both roots back to the same source and assuming that the morphological split took place in Proto-Slavic, is rather improbable in view of the total lack of intermediate forms or bridging semantics. Glancing at the semantic side of the matter, it seems unnecessary to resort to the figurative meaning of "looking through" in order to extract

a) The adverb and preposition in OCS, ORu. *skvozě*, OCroat. *skvozje*, Ru. *skvoz'*, Sln. *skȏzi* 'through, throughout' [SJS, 4: 85; REW, 2: 636; ERHSJ, 3: 268; SES: 685; ESSJ, 3: 247; SSKJ, 4: 707–708].

b) The feminine resultative noun in (O)CS *skvožьnja*, *(s)kvažnja* equivalent to Gk. ὀπή and Lat. *foramen*, Sln. *skvȏžnja*, OSerb., Ru. *skvažina* all meaning 'gap, hole, crack, fissure, slit' [SJS, 4: 85, REW, 2: 635; SES: 687; ESSJ, 3: 252; ERHSJ, 3: 276], on the suffixation see [Matasović 2014: 150–151]. If the root-vowel -*a*- is old (which is not certain) it would reflect the lengthened grade, hence the continuation of the Proto-Indo-European *seṭ*-root.

c) A verbal stem is attested in Ru. *skvozitь* 'to have holes, to allow seeing through' [OCSRS, 2: 1230] and 'to have draught', MBulg. adj. (possibly ← pf. pass. ptcp.) *skvoznatъ* with reference to the ventilated cavities in the lungs (Hex. 233b10), 'perforated, porous' (Hex. 175b14), and Sln. dial. *skozniti*, *skoznováti* with the secondary meaning 'to stay awake' → 'to observe, keep watching' [ESSJ, 3: 247] all pointing towards the original *C*o*C-éįe-* causative-iterative stem-formation.

d) In Old Russian, the root is further exploited to produce a large number of derivatives at different times, such as later *skvažnostь*, a special physical/chemical term denoting "the quality of bodies, according to which there can be spaces between their constituents" as registered and defined in [OCSRS, 2: 1229].

For the correct interpretation of the etymological attribution of the Slavic continuants in addition to the abstract meaning 'through, per' conveyed in Old Church Slavonic attestations, crucial evidence is provided by the Middle Bulgarian *Hexaemeron* of Joan Ekzarh of Bulgaria (survived in a 13th century Serbian copy)[5] that contains parts of Aristotelean description of the human body. There *skvožě* adv./prep., *skvožьna* f.,

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the non-figurative element (the basis of the metaphoric transference) out of the semantic structure in the course of semantic derivation.

[5] The text edition and a concordance are available in [Aitzetmüller 1958–1975].

skvozьnatъ adj. (possibly ← pf. pass. ptcp.) occur — often together — several times, the latter two always with reference to the functional qualities and constitution of human lungs. The same 'porous quality' (irrespective of visibility) is expressed by the derivative appearing in the 18ᵗʰ century Russian, listed above under (d).

Croatian Kajkavian *skoznovȁti* 'to stay up/awake the whole night', *skozan*, *skozni* adj. 'awake', Sln. dial. *skoznováti* 'to watch (out)', *skô̜zen* adj. 'cautious' is a further semantic narrowing. The Kajkavian iterative forms witnessed a *pars pro toto* transference of the compound semantics (lucidly formulated by Skok [ERHSJ, 3: 268]: "bdjeti, probdjeti noć bez sna" 'to stay awake through the night') to its most prominent distinctive feature expressed by the adposition / adverb *skozi* 'through(out)' yielding literally "to through the night". A comparable collocation is found in Modern German '(die Nacht) durch-machen' lit. 'to do the night through' i.e., 'to stay up through the night', (where *durch* corresponds exactly to Croatian Kajkavian *skozi*). [6]

Judging by the preserved ablaut pattern and the semantics in South Slavic, the presumed Common Slavic **skvoziti* is originally a causative 'to let through' that developed into an anti-causative intransitive (in some contexts even zero-valent) verb in Russian and served the basis for further *Aktionsart*-stems.

M. Snoj seeks for additional evidence in support of his analysis of *skvozě* in Kashubian *skᶹega/skᶹẹga*, Pomeranian *skᶹega* f. 'crack, split', also used as a pejorative reference to persons. However, *skᶹega* cannot represent the output of the regular phonological development of the alleged PSl. **skvo/ega.* The consonantal sequence *skᶹ°* is in general barely encountered in West Lechitic, with the exception of apparently onomatopoetic *skᶹer*-derivatives in lexemes denoting birds or insects and affiliated "sound-producing" verbs [Sychta 1967–1976, 5: 69; Lorentz-Hinze 1970: 258–260; Lorentz-Hinze 1975: 1781]. This is

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[6] The further semantic drift to the contemporary meaning found in colloquial Sln. *skoznováti* 'to observe, stay alert, be attentive' is visible in older Prekmurje Sln. *skoznùvati* preserving both meanings 'to be awake' and 'to observe, look' [Novik 2015: 655].

due to the regular "lightening" of consonantal clusters ([Lorentz 1925: 86–87] with ample examples) and especially in the sequence of a velar and the labial *v* (whether palatal or not). Thus, in a linearly inherited lexeme, one would expect either the total loss of *v́*, or *kv́* would have been assimilated to *kf* / *kx́*, or even *kj* (an even broader feature of West Lechitic dialects, occurring also in Polabian, cf. [Polański 2008: 803–804]); whereas the velar *-g-*, if inherited, is also unlikely to have remained unpalatalized throughout the Common Slavic period (a *ja*-stem would be expectable). If related, West Lechitic *skv́ega* due to its *centum* vestige could suggest Germanic influence, very probable in that area due to centuries of diglossia with Middle Low German and younger varieties [Hinze 1963: 1965], but the exact source remains unclear. In fact, West Lechitic *skv́ega* is not isolated within the West Slavic but has been connected by West Slavicists as an *s*-prefixed form to Old Polish *kwiekać* (*się*) 'to split, splinter' (16th century, [SEJP, 3: 487]), Upper Sorbian *kwěkać*/*kwěknyć so* intr. 'to crack up, split' [Schuster-Šewc 1980: 749], the resultative noun *kwěk* 'fracture, split, crack' [Boryś 1973: 350], Czech dial. (East) *škvíkat se* 'to crack up, split' [ESJČS: 505], Slk. *švík* 'crack'. In all these languages (probably except for the Slovene on which I have no data) there is a homonymic verb and its substantival derivatives to refer to different squeaking sounds. Boryś [1973: 350–351] demonstrated numerous cases of the interchange of the root final *-k-* and *-g-* in West Slavic in onomatopoetic words in order to account for the Pomeranian root final *-g* as well as the occasional *s*-prefixation in these lexemes. His analysis seems to offer the most plausible grounds for the phonological vestige and etymological connection of West Lechitic *skv́ega* which should be kept apart from OCS *skvozě* and the related words, see points (a–d), here contra [Boryś *l. c.*].

Following the common ways of lexical derivation in Slavic, the attested *-o*-grade in all derivatives should either hark back to a PSl. (and possibly PIE) causative-iterative formation of the *CoC-*é$i̯e$*- type of the presumed verb,[7] or result from the generalization of the nominal

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[7] The development of this type in Slavic is discussed in my article on the vowel gradation [Ackermann 2020].

stem-form. The last morphological segment of OCS *skvozě/skvězě*, PSl. *-ē* is phonologically and functionally derivable from the originally instrumental ending PIE *-éh₁* productive in Slavic in the formation of adverbs of manner of action as well as of the semantically equivalent adverbial participles, which has been the last step of derivation reflected in OCS *skvozě*. The PSl. root *skvo/az* is not immediately identifiable outside Slavic. The most probable morphological analysis, even if separate elements are still unknown, yields *skvě/ŏ-z-ě* (*s-* is inseparable, otherwise it would have shown *ъ* — at least sporadically — at the morphemic boundary in OCS).

The open syllabic structure of the root allomorphs in Slavic, namely CCRV (C — consonant, R — resonant/glide, V — vowel) suggests it appeared in a position requiring re-syllabification known in application to PIE as the *Schwebeablaut*, triggered by the expansion of the root with a further morphological element with a consonantal anlaut. Herewith, the etymological attribution of the corresponding Proto-Slavic root *skvě/ŏ-/*skū-* does not pose much problem if we take into account that the most prominent semantic component in Slavic derivatives has to do with different kinds of 'produced openings or cavities'. Hence, it most likely continues the PIE verbal root *skeu̯(h₂)* 'to poke, pierce' → 'to mark' (cf. [LIV²: 561]) amply attested across the IE language branches, whereas the all over found *aṇit*-variant is generally considered to be secondary. The root-final laryngeal should have been lost in the course of the extensive derivational activity and the *aṇit*-root variant was lexicalized early, especially when incorporating consonantal extensions (see in detail [EWAia, 2: 751; EDIV, *skauH*; Oettinger 1979: 156–157, n. 46]). Here belong Hitt. *iškuna(ḫḫ)-* 'to mark, designate' showing the *seṭ*-root in, e.g., *iškunaḫḫiš* 3 sg. pret., and with the lost laryngeal in *iškunant-* ptcp. 'marked' ([Oettinger *l. c.*], with further references); Vedic *n*-infixed *ā-skunoti* 'to poke, earmark', possibly rebuilt from *skunắti* (attested once), cf. the *aṇit*-form *skauti* (ŚB), *danta-skavana-* 'tooth-picking' [EWAia, 2: 751; Monier-Williams 1986: 469]; Choresmian *m|sksy-* (pass./intr.) 'to be split, slit', *m|škwnd-* (tr.) 'to earmark' (further examples in the Iranian branch with and without the *s*-mobile by Cheung [EDIV, *skauH*]. Baltic continuants reflect *seṭ-* and *aṇit*-forms as well [ALEW: 936–937]. The regular continuant

of the *seṭ*-root appears in *kiáuras*, adj. 'having holes, perforated', *skiaũrė* 'perforated fish-box', Latv. *caũrs* adj. 'having holes; sore; hollow', cf. especially Latv. *caũri* adv., Lith. *kiauraĩ* 'through, throughout, in the meanwhile' [ALEW: 486; SEJS: 673–674] < *skeu̯h₂-ró-, cognate to North Germanic Swedish dial. *skuru-* 'opening, split, break, incision' and, according to Rédei [UEW], significantly impacting the neighbouring Finno-Ugric idioms. [8] It is thinkable to connect these Baltic (and Germanic) *ro*-derivatives with the hitherto rather isolated Czech *škvírati* 'to gape, open (intr.)' [ESJČS: 505], cf. [Schuster-Šewc 1980: 750].

An intriguing form is found in the Norwegian Lapp (Southern dial.) *skivŋe* and its alleged Russian loan *skevnja* 'earmark of a reindeer as a pierced hole of the size of the room between the thumb and the forefinger'. Itkonen lists it as a Lapp loanword in Russian (cf. [IW, 4: 134; Itkonen 1931: 58]), which is indisputable in this contextual meaning (close contacts in the neighbouring areas persisted since the 11th century). However, the double consonant anlaut is untypical for Lapp (and generally Finnic-Ugrian) except in onomatopoeia, whereas the form has a suspiciously Indo-European vestige. [9]

In Slavic, the root occurs solely extended with the enigmatic *-z-* which cannot be identified either with a regular Proto-Slavic stem- or word-forming suffix or an inflectional fossil. [10] Hence, its provenience has to be

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[8] Selected evidence: Finn. *kuri* 'narrow pass; mountain gorge; sharp corner', *kuurna* 'groove, furrow', Est. *kuru* 'narrow path between the fences; nook', Lapp dial. *kurra* 'cut, notch; deep narrow valley', *gur(r)â* 'chip, cleft, mountain gap', Zyryan dial. *guran* 'cavity; water crack', Ostyak (Hanti) dial. *kor* 'longitudinal spit', etc. (see in detail [UEW, 1: 217–218; Collinger 1955: 92, 93]).

[9] Comparable evidence within the Inari-Lapp itself seems to be the word for the 'scarecrow', *skivŋà* (perhaps as a cut out figure / a cut scrap of cloth?). Both the Germanic and the Baltic neighbours have many suffixal derivatives of the inherited Proto-Indo-European "cutting" and "splitting" roots reconstructed for the late Proto-Indo-European as *sekH, *sk⁽ʷ⁾er, *skerH, *skʰeyd (cf. [ALEW: 927–931, 937], see also the footnote below and [Oja 2014] on the areas and ways of borrowing in Finnic from the Indo-European).

[10] A distant relative of the Indo-European unextended continuants beside the probable *ro*-derivative in Czech (see above) might be Low Sorbian *skut* 'scrap of cloth',

sought in syntax. The option with the least grade of erosion, which we necessarily have to assume here, would be a reflex of an adverbial clitic complementing the overall semantics, rather than an object complement which would have a more complex morphological structure.[11] The advantage of such a scenario would lie in its typological triviality (a verb incorporating a frequent adverbial particle) and phonological regularity. The assumed univerbation of *$sku̯e/o(h_2)$ with the postponed -$ǵ^h$- does not imply that a unique syntactic collocation became idiomaticized but should have had a productive model to follow. Two Proto-Indo-European particles come into question: emphatic postponed *-$ǵ^ho/i$ and spatial proclitic *$(H)eǵ^h$ of ablative semantics 'out, from', 'outside' functioning also as an adverb and making part of the basic inventory of spatial prepositions in many Indo-European languages (cf. *$(H)eǵ^h(-s)$ > Gk. ἐξ, Lat. *ex*, *ē*, OIr. *ess*, *ass*, *a*). In G. Dunkel's analysis of the Indo-European evidence summarized in LIPP, preference is given to the classification of the postponed *$ǵ^h$-containing particle exclusively as a word or sentence intensifier; he claims that the spatial particle (reconstructed as *$eǵ^h$- in LIPP) is nowhere found as a simplex (i.e., plain *$eǵ^h$) or an enclitic, although highly productive as a preverb and a preposition [LIPP: 207]. The relevant formations in Balto-Slavic make it necessary to rebut Dunkel's conclusion at least with regard to the development of the presumed Proto-Indo-European *$(h_1e)ǵ^h$- in Balto-Slavic.[12] In the following we would like to revisit the conclusive material.

ORu. *skutъ* 'piece of cloth', Croat. *skût* < *sku-to- (with the lost laryngeal) cognate to Lith. *skùtas* m. 'scrap of cloth', beside *skiáutė* 'id.', cf. further ON *skauti* m. 'square piece of cloth', and probably also MIr. *scoth* f. 'spike, blade, cutting edge' [ALEW: 927, 937 with references; Schuster-Šewc 1980: 1300; REW, 2: 655; SEJS: 674; HER: 556].

[11] On the loss of inflection in the course of enclitic incorporation cf. recently [Harris, Faarlund 2006] and, generally, [Joseph 2003].

[12] It should be noted that already in Brugmann's short comparative grammar [1904: 461–462] there is a discussion of postponed adpositions — mostly complementing the verbal semantics — found in ancient layers of many Indo-European branches (beside Germanic and Slavic), including the extended Lat. *ex* and Gr. ἐξ.

3. Balto-Slavic and Proto-Slavic prepositions of ablative-allative semantics

1) BSl. *iz (OCS $jьz(-)$, $jьs$-, $jьš$-, Lith. $ìš/ìž$, Latv. iz) 'out, outside' has been traditionally placed next to Gk. ἐξ, Lat. ex, OIr. ess, Welsh eh- [REW, 1: 636; EDSIL, $jьz$; EDG, ἐξ; EDL, ex; EDPC, exs]. However, the latter forms regularly reflect the full grade allomorph *$(h_1)ég^h$-s, whereas there is no phonological way to reconcile it with the Balto-Slavic short i reflex. [13] The regular pre-Balto-Slavic transponate would demand either an -i- or a diphthong with the glide -j-. In view of the secondary character of $z < *ǵ^h$ in all ablative-allative prepositional formations, the original morphological boundary may be drawn as *i-z as well. The most trivial candidate for the first member would be the demonstrative/relative pronoun in the (generalized) nom./acc. = abl. neuter form PIE *id (the suppletive complement of the animate pronominal stems *h_1e-, *ih_2-), whereas *id-$ǵ^h$ results in BSl. iz due to the regular loss of d as the first stop in the cluster (cf. in this respect PIE *$d^hǵ^h$-$ém$- > BSl. *$zemja$, $jā$-stem in Lith. $žẽmė$, Latv. $zeme$, OCS $zemlja$ 'earth'). The derivational semantics yields 'out of this, thereof, therefrom', the pronominal stem being used anaphorically. The pattern [demonstrative/relative pronominal stem] + [suffix/adposition ← local/directional/etc. particle] of deriving adverbs / preverbs / prepositions with the respective semantic specification is neither new nor specific to Indo-European and as a productive mechanism should have been inherited from the protolanguage. Cf. for instance, Vedic synchronic suffixations of a pronominal stem to derive spatial adverbs: a (demonstrative/relative) + -$dhás$ / -tra / -tha, etc. → 'beneath' / 'here(to), there(to)' / 'then, thereafter', [14] but also the Modern English or German formations following the same pattern (as the above translations illustrate).

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[13] Hock [ALEW: 101, 402] decides against the plain continuation of *$(h_1e)ǵ^h$- in Balto-Slavic as well, cf. [REW, 1: 473].

[14] For an overall presentation of composition and derivation with pronominal stems in Sanskrit one may refer to [Wackernagel 1930: 584–594].

Connecting Slavic *-z* in the group of Slavic locative prepositions (*iz*, *vъz*, *bez*, etc., see below) with the Sanskrit emphatic/affirmative particles *-ha*, *-hí* (here also Gk. -χι, ON *-gi*) and consequently obviously automatically tracing all of them back to the Proto-Indo-European emphatic *ǵʰo/*ǵʰi* (cf. [LIPP: 273] and indirectly [Večerka 1993: 245]) does not take into account at least two facts. Firstly, whereas in Skt. *-ha* and *-hí* are mobile within the utterance and have clear syntactic functions within the whole syntagma, as a rule emphasising the first word, in Slavic this is never the case. Secondly, spatial prepositions attested in Slavic with an enclitic *-z* appear in Sanskrit as preverbs or first members of compounds which would not offer a proper context for the emphatic *ha* or *hí.* Furthermore, even if one assumes the inheritance in Balto-Slavic of the stem relics dissociated from their prior function (presumably still visible in Vedic Sanskrit), it does not explain why the Sl. *-z* makes part only of local prepositions (see below), why it obviously survived as a root extension, as we aim to show, and why it strikingly correlates in all of them with the distribution of ablative-allative semantics. In contrast, there is indeed an exact functional and distributional equivalent of the emphatic enclitic Skt. *-ha*, *-hí* in Balto-Slavic, but it continues the non-palatal PIE *gʰo/*gʰe/*gʰi*, namely PSl. *že*, *-go* (the latter still visible in composition with other particles, e.g. SCr. *nĕgo* 'but', OCS *negъli* beside *neželi* 'than'), emphatic Lith. *gì*, Latv. *-dz*, OPr. *-(g)gi* < *gʰi*, OLith. *-ga*, Latv. *-g* < *gʰo* [ALEW: 319–320], cognate to Skt. *gha*, *ha* (< *gʰe*), Gk. γε, Doric, Boeotian γα 'at least; just' (EDG, γε), and emphatic Toch. A *-(ä)k*, Toch. B *-k(ä)* [EDTB, k(ä)].

Returning to Slavic locative prepositions, apparently, it is the continuant of the Proto-Indo-European particle 'out, outside' that appeared in Balto-Slavic in the zero-grade vestige *ǵʰ*, encliticized (hence, here contra Dunkel, [LIPP: 207]) to a number of the core locative prepositions to complement the directional compound meaning with its ablative semantics and should have been associated with the latter to the extent, allowing subsequent analogical transference of the final *-z* in more recent times. Let us have a closer look at the Balto-Slavic and other Indo-European evidence.

2) BSl. *uz (OCS *vъz*, Lith. *ùž*, Latv. *uz*), 'upwards' < *ud + ǵʰ with the phonologically regular consonant cluster development.[15] Unextended *ud is reflected in Skt. *úd-/ut-*, OPers. *ud-* 'upwards', Cypr. *ὑ* 'upwards'[16], Goth. *ut* /ūt/ 'out of, outwards', OHG *ūz*. Iranian also attests extended stems traditionally reconstructed as *ud-s > us-/uz-*, e.g., Av. *usca* < *uts-čā*[17] cf. Ved. *uccā́* 'above', Av. *usiiaṇc* 'turned upwards', YAv. *uzdaēz-(uzdiš-)* 'to heap / pile up', *ustānazasta-* 'with one's hands stretched up', etc. But the second component in Av. *uz/s-* < PIr. *ud-z (with the regular drop of the dental before a sibilant, [Hoffmann, Forssman 2004: 98] can be a phonologically regular outcome of the Proto-Indo-European enclitic *ǵʰ as well.

3) PSl. *nъz(-)* 'downwards' < *ni + *z < *ǵʰ parallel to *ni- 'down' (locative), cf. Skt. *ní* [EWAia, 2: 40] and Arm. *n°* (see below). Adverbial/prepositional *ni* 'down, downwards' occurs in Slavic with fossils of other stems in compounds of the Proto-Indo-European age, e.g., OCS *nicь* 'face down' < PIE *ni-h₃kʷ- literally 'down-look', corresponding to Ved. *nyàñc-*, Av. *niiā̊ṇc-* adj., adv. 'turned down(wards)'. Here also belongs secondary OCS *ničati* 'to bend, bow' which Martirosyan compares to Arm. *nk'ťem* 'to faint from hunger, starve' (see in detail [EDAIL, *nk'ťem*]); *ni- is also traceable in Arm. *nsdim* 'sit down' < *ni-si-sd- (of the PIE *sed 'sit').

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[15] See also [ALEW: 1159; LIPP 824–825, n. 17]. The analysis proposed by Meillet [1902: 153–155, 160] probably in alignment to the development assumed in Iranian, namely as a respective Proto-Indo-European preposition ending in an obstruent and losing it before *s,* was limited to the three cases, *vъz*, *bez,* and *raz*, all continuing the Proto-Indo-European structure CVC + extension. This scenario is more common in a three-consonant cluster, and besides, does not hold in all other cases. Moreover, the primary allomorph is clearly the voiced *-z*, voiceless or fricative variants all have apparent phonotactic conditioning.

[16] See Egetmeyer [2010: 450–452] for a discussion of several existent reconstructions of the preform of the Cypr. *ὑ* and the issue of the early drop of the closing dental.

[17] [Hoffmann, Forssman 2004: 98], a bit differently [EWAia, 1: 211–212].

4) PSl. *bez* 'without' (South Slavic *brez* is a late secondary variant) with a possible cognate in Ved. *bahíṣ* 'outside' [18], Latv. *bez* is due to Slavic influence. The unextended variant *be* seems to be registered in the 17th and 18th century Sorbian [Bígl 2019: 148] and should be primary in Baltic, cf. Lith. *bè*, Latv. dial. *be*, OPr. *bhe* [ALEW: 101; PKEŽ: 75], cognate to Middle Iranian adverb and particle *bē-* '(with)out', preposition *b'* 'except, without' (Pers., Parth. *bē-*, Sogd. *vē-*, etc.) occurring with a wide range of extensions, [19] as well as Gk. βε- 'outside'.

5) PSl. *orz* 'apart, asunder' in prefixes *raz-/roz-* < pre-PSl. *ord^h + ǵ^h*, cf. Skt. *árdha-*, Av. *arəδa* m. 'side, part, half', and *-ka-* derivatives in Skt. *r̥dhak* adv. 'separately, apart', Oss. Digor *ærdæg* 'part, half-', Pahl. *alak* 'id', etc. [EWAia, 1: 119; Abaev, 1: 172–173]. The root-reconstruct *ord^h* should be secondary as well: it must have emerged as an early amalgamation of any of the PIE *Her(H)-* roots meaning *grosso modo* 'moving/taking apart' with the following factitive *d^heh₁*. [20] The primary root retains apparently Skt. *r̥té* 'without, apart', namely as a fossilized loc. sg. of the *to*-participle *-r̥-tá-* 'torn to pieces/broken off' < *h₂r̥H-tó-*. Herewith extended twice, the Proto-Slavic root *orz* lives on in numerous nominal formations, cf. OCS *razьnъ* adj. 'different', Pol., Upper Sorb. *rózno* 'apart', Ru. *roznь* f. *i*-abstract 'discord', cf. Germ. *Zwist* (cf. [SJS, 3: 599–600;

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[18] [EWAia, 2: 220], if Skt. *-h* < *-ǵ^h*, and not < *-d^h* that probably also underlies Manichaean Parthian *byḥ* '(with)out, outside' if with [Back 1978: 204], cf. [DMPP: 121–122], but see the footnote below; *-íṣ* is a regular adverb-forming suffix, see parallel cases by Meillet [1902: 153].

[19] According to Gershevitch [1985a: 176–177; 1985b: 192–193], a *-k*-extension should be assumed in Sogd. *β(')yk* 'outside', Pers. *bēg-āna*, Pahl. *bēk-ānak* 'stranger', a *-t*-extension (<*d^h*?) in Pahl. *bytwn*, MMPers. (Turfan) *bydwm* 'furthermost' (cf. [Back 1978: 204; Nyberg 1974: 46–47]), also reflected in the compounded MPers., MMPers. (Turfan) *byd(y)ndr* 'outside', whereas an *-n*-extension underlies Parth. *b'yn* 'outer' (see also [Bartholomae 1906: 50–51 fn. 1; 1920: 34 fn. 1; DMPP: 105]). Nyberg (*l.c.*) brings to discussion enclitic *-c* and *-p* in Parthian derivatives.

[20] In contrast, Lith. *ardýti* 'to slice, crush, separate' is a younger *-d* (< *d^h(h₁)*) causative to the zero-grade *ìrti* of the PIE *h₂erH* 'to tear/break to pieces' (cf. [ALEW: 53–54, 400]), cognate to Sl. *-oriti*, *-orjǫ* 'to demolish', which is itself most frequently prefixed with *raz-* < *orz* to denote 'to devastate, pillage'.

Schuster-Šewc 1980: 1175; REW, 2: 530–531, 484–485; EDSIL, *orz*], doubtful analysis in [SES: 87, *brez*]).

6) PSl. **prěz* [21] 'through, throughout' < **pér* adv. + *ǵʰ* 'across, through' is found in all Slavic languages ([REW, 2: 339; SJS, 3: 440], untenable analysis by Herodes [1963: 364–365]), dialectally also co-occurring with *praz*, [22] and has a further derivative in Sln. *praznína*, synonymous to *skvožina*/*skvažina* (a bit differently [SES: 583–584]). Unextended root allomorph is retained as a prefix (cf. OCS *prě-*, Ru. *pére-*, etc. 'through, over'), continued in Baltic: Lith. *peȓ* prep., *pér-* prefix 'across, through', OPr. *per*, *pēr* 'id.', Latv. *pàr*, *pãr* 'through, across, over', also found in many Indo-European branches with further developed semantics and functions, cf. *i*-extended Skt. *pári-* adv., YAv. *pairi* 'around, through, towards', Gk. πέρι, περί 'around, over, throughout', Lat. *per* 'throughout', etc. Initial semantics has been well preserved in the Indo-Iranian verbal root Skt. *par-*, Av. *fra-* 'to put/get/stand smth. through/over', and is also present in Slavic, cf. OCS caus. *prati* 'to rip, unstitch', Ru. *perét'* 'to force one's way through' (cf. [EDSIL, *per*; ALEW: 758–759; EWAia, 2: 85–86, 91–92]).

7) A later formation CS *črězъ* 'through, throughout' ← *črěsъ* joined the group on analogy. The latter appeared in later Church Slavonic texts in the place of older *skvozě* (occasionally with the levelled final → *skvozь*). Morphologically, *črěsъ* is not a -*so*-derivative of the PIE **(s)kert-* 'to cut', as Derksen assumes ([EDSIL, *čersъ*]) (this would require adverbialization of an oblique case-form with reflexes of an instrumental or a locative ending of an actually unattested substantive), but in accordance with its late appearance in manuscripts a relatively young adverbialized indeclinable short active past participle of the well-attested verb *črěsti* 'to crush, cut, etc.', meaning originally 'having cut/crushed through' [23] with the logical

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[21] The root vowel lengthening *ě* ← *e* is due to metathesis with *r*.

[22] This can be a continuant of the PIE **pro-* 'forward, forth, before', also retained in Balto-Salvic as a prefix/preposition *pro(-)* and nominally (due to accent retraction and metatony) *pra-* which visibly got under the semantic influence of the **per-* continuants meaning 'through'.

[23] Cf. the verbal semantics of continuants of PIE **per* in Slavic discussed above.

accusative governing. This development is traceable in the written Church Slavonic sources. On the process of adverbialization of transgressive active participles and participial predicative supplements in (O)CS, particularly the absolute forms beside the predicate expressed with an infinitive construction see Večerka [1993: 192 §78; 1993: 198–199, cf. 214], who states that "the nominative forms used to get adverbialized". A mixed form is found across all Slavic languages, e.g.: Bulg. *skrъ́z*, SCr. *skrôz*, Cz. *skrz*, Ru. *skroz'*, etc.

PSl. **skvozē* once grammaticalized as a preposition expectedly was aligned with this group. [24]

Regular phonological development of all prepositions discussed above (except for the late analogical *črězъ*) demands the attraction of the plain zero-grade **ǵʰ*. In terms of systemic consistency, the question arises, if Gk. ἐξ, Lat. *ex*, OIr. *ess*, etc. are not analysable as the originally non-clitic composition of the pronominal anaphoric **(h₁)e* (m./anim.) with *-ǵʰ-* (+ *-s*) as well. In other words, we arrive at the typologically trivial and frequent morphosemantic template [anaphoric pronoun] + [spatial particle] ± further particles/suffixes reinforcing the necessary semantics [25] underlying the structure of a great many of inherited spatial adpositions and adverbs (cf. already [Brugmann 1904: 457]). The apparent variation of the initial vowel reflexes should be rooted in the generalization of different paradigmatic stem-forms of the demonstrative/relative pronoun, whereas the variation of particles of different semantics as the second member (known all over the Indo-European beside the equally productive variation of the first member) [26] gave birth to sets of adverbs forming small co-hyponymic groups.

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[24] Back to Snoj's connection to PIE **(s)keu̯h₁* 'to perceive, feel'→ 'to see, hear', it seems, the univerbation with a local adverb/particle 'through' is much more common in the employment with 'piercing' than 'looking'. Even ontologically holes first have to be pierced (an associated lexeme should be present) before one can look through them.

[25] A comparable triple structure (although with no pronoun) would be the case of the aforementioned Ved. *ba-h-íṣ* [MacDonell 1910: 426; Meillet 1902: 153].

[26] In order to keep within the allowed limit of the article length, instead of a proper illustration I have to refer to the forms derived from pronominal anaphoric **(H)e*

4. Some further fossilized traces of *(He)ǵʰ in secondary roots of 'piercing' semantics

Conspicuously, quite a number of verbal roots and derivative stems across the Indo-European languages (and specifically Balto-Slavic) with semantics involving 'piercing', 'cutting through', 'poking', and the like contain a reflex of the PIE *(He)ǵʰ, which may have had a very remote onomatopoetic origin, but in many continuants can be traced back to an autosemantic root-morpheme. The latter would also be the only alternative to the word- or stem-formational fossil, or a particle, as suggested above, that should have yielded Sl. -z- (and Lith. -ž-) at least in the most apparent ablative formations, as the process has clearly got its own dynamics within the Proto-Slavic. For the sake of an illustration and refraining from a lengthy excursus in the present framework, some intriguing evidence for the identification of the presumable root should be mentioned. For if these forms are indeed derivationally connected to the Proto-Indo-European particle *(Hé)ǵʰ discussed above, it must have occurred in the time period, for which linguistic reconstruction cannot be ascertained. In Balto-Slavic, the radical *-z- next to various vowel grades shows up in a number of lexemes, which — taken together with other Indo-European cognates — deserve a brief comment.

Thus, on the one hand, the derivational family of OLith. *iẽžti* 'to split (with a sharp tool)', 'to make a crack', Lith. *iẽžti* 'to crack nuts, legumes, etc.' and its anticausative Lith. *ìžti* 'to burst', further Lith. *áiža* f., Latv. f. *aĩza*, *aîza* 'crack, chink, cleft',[27] as well as Old Prussian (Elbing

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collected in [LIPP: 183–203], with further (cross) references, without discussing the exact reconstructions proposed therein.

[27] The controversial reflexes of the intonation of the root vowel in a wide range of the related forms in Baltic is discussed by Derksen [1996: 233–234] who prefers, in view of the Slavic evidence, to assume the original acute root in Balto-Slavic word-family of the root meaning 'to crack, split' (cf. also [ALEW, 1:406]). Short vocalic Lith. *ìžena* 'pod, (cockle) shell' and 'snail' and related forms should be kept apart (contra [ALEW *l. c.*]), since the semantic derivation of 'pod'→ 'crack' is not

Vocabulary) *eyswo* 'lesion, wound' catches the eye. On the other hand, the Baltic word-family is obviously related to OCS *ěz(ъ)va*/*jaz(ъ)va* with the first meaning 'opening, (earth) pit, cave' [SJS, 4: 937–938], and also more specifically 'scar, mark; wound, lesion',[28] *jazvina* translates Lat. *caverna*. The secondary meanings are better preserved in later language varieties, whereas the causative-iterative OCS *jazviti* denotes primarily 'to open' [SJS, 4: 939], and narrowed — 'to wound, hurt'. The Balto-Slavic ancestor root *ējz*/*ōjz* < *He/oi̯(H?)ǵʰ, *vel. sim.*, should have obviously meant 'to open with a sharp tool; to poke (out)'.

Leaving this aside just for a while, let us consider another intricate root underlying OCS (*vъ*)-*nisti*/-*nъzǫ* 'to plunge, thrust' occurring with many prefixes, of the basic semantics comparable to Modern English 'to skewer' = Modern German *aufspießen*, and its τροχός-type derivative OCS *nožь* m., *jo*-stem 'knife' (Proto-Slavic accent paradigm *b*) further often connected to Gk. ἔγχος 'spear', verbally ἐγχείν (Hom.).[29] All these forms are brought together in [LIV²: 250] to the Proto-Indo-European transponate *h₁neǵʰ* but they may just as well continue a preverbation *en/n̥-h₁(e)ǵʰ* incorporating the locative proclitic particle. Cf. further Ved. *nikṣ-* 'to pierce, perforate' (also amply attested in Iranian, cf. Pers. *nēš* 'sting, spike, spine') showing long -*i*- in the RV (1, 162, 13): *nī́kṣana-* 'pointed stick' (for testing the cooked meat) that Mayrhofer traces back to PIE *neiǵ⁽ʰ⁾-s* [EWAia, 2: 41]. Vedic long-grade form looks like having resulted from the univerbation of *ni* 'down' (common preverb in Old Indic compounds) and *h₁eǵ⁽ʰ⁾*, cf. the semantic equivalent in German *nieder-stechen* 'stab (down)'; a preverbation was also suggested by Oldenberg [1909: 155] which he understood to have taken place in analogy to *ni-īkṣ (ibid.)*. However, it would leave Vedic short-vocalic root reflexes

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at all trivial. Admittedly, the semantic split (if both are distantly related) could have taken place much earlier, as the meanings attested in Middle Iranian: MPers., MSogd. *zyn*, Pahl., Parth. *zyn* /*zēn*/ 'armour' (cf. Baltic 'shell') and 'weapon, sword' (in Balto-Slavic in resultative derivatives 'to split, cleft') would suggest.

[28] See the whole root-related family in [SJS, 4: 937–940].

[29] In contrast, Schwyzer [1922: 11–12] attempts a phonologically difficult association with αἰχμή 'point of a spear'; cf. also a recent discussion by Garnier [2017].

in need of an explanation and the pragmatic context makes this interpretation sound a little fancy, since meat does not have to be stabbed down (anymore) in order to be tested while cooking. Alternatively, we may assume in Ved. *nikṣ* traces of the *i*-infixation [30] of the compound stem *$nh_1eǵ^h$* (< *$en/ṇ$* 'in(side)' + *$h_1(e)ǵ^h$* 'to poke, thrust') [31] underlying, as proposed above, Gk. ἔγχος 'spear' < *$en-h_1ǵ^h-o-$*, OCS *-nisti/-nьzǫ* 'to plunge, thrust' < transp. *$nh_{1e}ǵ^h$-* and *nožь* 'knife' (likely already as *$noź-jo-$*), and fitting better the contextual semantics. This would also enable a distant connection to BSl. *$*ējz/*ōjz$* discussed above, the latter continuing the unprefixed *$*Heiǵ^h$* (in this case $H = h_1$, and rather no laryngeal following the diphthong [32]), namely, *i*-infixed as well.

Finally, all Indo-European words for 'hedgehog' (and 'sea urchin') that hark back to the root *$*h_1eǵ^h$* appear to be attributive / possessive suffixal derivatives. Myc. PN *E-ki-no* (KN Da 1078, PY An 661.1), Gk. ἐχῖνος, Arm. *ozni* are *-i-Hn-* "Hoffmann-possessive/attributive"-based derivatives showing different root ablaut grades [EDG, ἐχῖνος; GEW, 1: 601; EDAL: 523–425]; Oss. *wyzyn/uzun* reflects an *-i-n-* derivation [33] [Abaev, 4: 129]; unclear Phryg. εξις for ? εζις [GEW, 1: 601] would point to an *-i*-stem; Balto-Slavic forms (cf. Lith. *ežỹs/ežis*, Latv. *ezis*, SCr. *jȇž*, Ru. *ëž*) hark back to *$*h_1éǵ^h-(i)jo-$*, a productive attributive construction as well; ON *igull* OHG *igil*, OE *ig(i)l*, *īl* < PGmc. *$*eg-i(-)la$* (*-i/ula-* is a typical attributive suffix in Proto-Germanic) < *$*h_1eǵ^h-i-lo-$* [EWAHD,

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[30] For a detailed discussion of the morphonotactics, functions, and contexts of the presumed *i*-infixation in PIE see [Ackermann 2021].

[31] The root initial laryngeal is obviously dropped in the position between the consonantal resonant of the preverb and the root vowel, cf. numerous parallel examples of the laryngeal loss in CHV-structure in [Mayrhofer 2005: 99–101], see also [Pinault 1982: 266].

[32] The diphthong acute of the BSl. *$*ējz/*ōjz$* 'to crack, split, open, poke out' is then either a positive evidence of Winter's law or it reflects morphological lengthening.

[33] The vocalisation is not regular, Abaev (*l.c.*) contemplates tabooing grounds, which would accord with the fact that 'hedgehog', a prominent mythological figure, is generally referred to with descriptive epithets in Old Iranian (see [AIW: 755, 1348, 1546, and probably 1581]).

5: 22–27]. Though Hock [ALEW: 272] sets up a hypothetical *é/ó* ablaut-ing root noun as a thinkable original formation to denote the animal itself (note that Olsen proposed a Proto-Indo-European *i*-stem: *(*h₁*)*ó/éǵʰ-i-* [Olsen 1999: 508–509]), it seems that all attested 'hedgehog'-words are inter-pretable as "one characterized with **h₁eǵʰ*" or "having **h₁eǵʰ*". Whereas the formerly conjectured etymological interpretation as 'snake-eater' has been justly abandoned today as a secondary association (see reference to etymological dictionaries above), **h₁eǵʰ* denotes what would be typ-ically attributed to a hedgehog — the spines. Moreover, a semantic tem-plate is offered by Av. *sukurəna-*, Pahl. *sukurr*, Pers. *sugurr*, *sugurna* 'porcupine' [Abaev, 3: 165] from the compound Proto-Iranian **sūk-ūrnā-* '(having) needles (*sūka-*) [34] (as) hair/wool (*ūrnā-*)', cf. YAv. *varənā* 'animal hair/wool'. Noteworthy, no particular metaphor has to be assumed, since spines of hedgehogs are known to have served the poking tool in sewing leather in ancient times (cf. [Mallory, Adams 1997: 264]).

Hence, the PIE **h₁eǵʰ* that lives on in all formations discussed in the last section is formally and semantically likely to be a lexical-ized designation of a "poker/skewer"-tool in various actions and, if in-deed traceable back to the word-formational pattern [demonstrative / rela-tive anaphoric pronoun] + [adposition] '(t)hereof, (t)herefrom, out (t)here', was originally conceived as a "*through*-er"-tool.

Abbreviations

1, 2, 3 — 1st, 2nd, 3rd person; adj. — adjective; adv. — adverb; anim. — animate; caus. — causative; f. — feminine; intr. — intransitive; loc. — locative; m. — mascu-line; pass. — passive; pf. — perfect; prep. — preposition; pret. — preterite; ptcp. — participle; sg. — singular; tr. — transitive.

Hex. — Hexaemeron of Joan Ekzarh of Bulgaria; ŚB —Śatapathabrāhmaṇa; Zogr. — Codex Zographensis

Arm. — Armenian; Av. — Avestan; BSl. — Balto-Slavic; Bulg. — Bulgarian; Croat. — Croatian; CS — Church Slavonic; Cypr. — Cypriot; Cz — Czech; Germ. — German; Goth. — Gothic; Est. — Estonian; Finn. — Finnish; Gk. — Greek;

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[34] Cf. [Abaev *l. c.*] with references and [EWAia, 2: 739].

Hitt. — Hittite; Lat. — Latin; Latv. — Latvian; Lith. — Lithuanian; MBulg. — Middle Bulgarian; MIr. — Middle Irish; MMPers. — Manichaean Middle Persian; MPers. — Middle Persian; MSogd — Manichaean Sogdian; Myc. — Mycenaean; OCroat. — Old Croatian; OCS — Old Church Slavonic; OE — Old English; OHG — Old High German; OIr. — Old Irish; OLith. — Old Lithuanian; ON — Old Norse; OPers. — Old Persian; OPr. — Old Prussian; ORu. — Old Russian; OSerb. — Old Serbian; Oss. — Ossetic; Pahl. — Pahlavi; Parth. — Parthian; Pers. — Persian; PGmc. — Proto-Germanic; Phryg. — Phrygian; PIE — Proto-Indo-European; PIr. — Proto-Iranian; Pol. — Polish; PSl. — Proto-Slavic; Ru. — Russian; SCr. — Serbo-Croatian; Sl. — Slavic; Slk. — Slovak; Sln. — Slovene; Skt. — Sanskrit; Sogd. — Sogdian; Sorb. — Sorbian; Toch. — Tocharian; Ved. — Vedic; YAv. — Younger Avestan.

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