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1. The development of the Indo-European cluster * $\hat{s}k$ in Balto-Slavic has traditionally figured among the most controversial issues of the historical phonology of these languages. A list of the proposals known to me will suffice to exemplify the complexity of the problem. No less than five different unconditioned outcomes have been proposed, as well as an equal number of combinatory variants:

- 1) Lith. *š*, Sl. *s* (Brugmann 1897, 567f.; Endzelin 1939),¹
- 2) Lith. *sk*, Sl. *sk* (Meillet 1894, 294ff.; Kuryłowicz 1935, 19; Andersen 1970, 16f.),
- 3) Lith. *šk*, Sl. *sk* (Būga 1922, 249ff.; Vaillant 1950, 38; Stang 1942, 136; 1966, 92f.; Shevelov 1964, 141),
- 4) Bl. *st*, Sl. *s* (Leumann 1942, 118ff.),²
- 5) Bl. *st*, Sl. *st* (Kabašinskaitė-Klingenschmitt 2006, 184⁴⁹; Klingenschmitt 2008, 417²⁰),
- 6) Lith. *š*, Sl. *s* in anlaut, Lith. *šk*, Sl. *sk* in inlaut (Vaillant 1958, 150; Stang 1972, 84f.),
- 7) Lith. *š*, Sl. *s* + *i*, *sk* elsewhere (Steenland 1973, 30ff.; Kortlandt 1979, 58f.),
- 8) Bl.-Sl. *st* + front vowels and *i*, Lith. *sk*, Sl. *sk* elsewhere (Pedersen 1943),³
- 9) Lith. *š* in anlaut, *st* in inlaut before back vowels, *š* before front vowels, *šk* after \hat{k} and perhaps other obstruents (Hamp 1973; 1974),
- 10) Lith. *š*, Sl. *s* in anlaut, Bl. *st* in inlaut before front vowels and *i*, *sk* before back vowels, Sl. *sk* (Gorbachov forthcoming).

¹ This is the view favored in most classical treatments.

² Leumann does not actually state explicitly what he thinks the outcome of * $\hat{s}k$ was in Slavic, but his treatment seems to indicate that it was *s* (OCS *tysęšti*, *tysqšti* < **tūs-kmtiom*).

³ Pedersen (1943, 184) credits this idea to Karl Verner (in lectures).

Practically all theories on $*s\hat{k}$ in Balto-Slavic still enjoy some degree of acceptance today. $*s\hat{k} >$ Lith. *š*, Sl. *s* is accepted by Birnbaum-Schaeken (1997, 87), Forssman (2001, 95), or Smoczyński (2007, 216¹⁷⁴), $*s\hat{k} >$ Lith. *šk*, Sl. *sk* by Matasović (2005, 365), or LIV 260⁵, $*s\hat{k} >$ Bl.-Sl. $*sk$ is favored by Lubotsky (2001, 27ff.). Klingenschmitt's recent statements in favor of $*s\hat{k} >$ Bl.-Sl. $*st$ basically continue Leumann's views. Gorbachov's recent proposal combines the earlier approaches of Pedersen and Vaillant-Stang. It is clear that we are still very far from a consensus.

This remarkable abundance of views reflects the problematic nature of the evidence. We have a very limited number of reliable etymologies, and these seem to point to apparently irreconcilable results. Thus, Lith. *ieškóti*, OCS *iskati* “search for” (: Ved. *iccháti* etc.) seem to indicate I.-E. $*s\hat{k} >$ Bl.-Sl. $*sk$ or $*šk$, but OCS *sěrv*, Latv. *sejs* “shadow”, if related to Ved. *chāyá*, Gk. *σκιῶ*, would imply $*s\hat{k} >$ Lith. *š*, Sl. *s*, whereas Lith. *tuščias*, OCS *tvŕstv* “empty”, if directly equated with Ved. *tucchyá-*, would argue for $*s\hat{k} >$ Bl.-Sl. (?) $*st$.

There are thus good reasons to revisit the issue in its entirety. In dealing with a question for which the evidence is relatively scanty, it goes without saying that a reevaluation of just one or two items may render a given approach no longer tenable. In addition, as I hope to show below (§3.3.), recent findings on the development of $*s\hat{k}$ in other Indo-European languages allow us to look at the Balto-Slavic facts in a partially different perspective than it has traditionally been done.

2. I will first address the development of $*s\hat{k}$ in anlaut, which will allow for some general conclusions that will be useful when addressing the reflexes of $*s\hat{k}$ in inlaut. Three outcomes of word-initial $*s\hat{k}$ have been proposed: 1) Bl.-Sl. *sk-*, 2) Lith. *š-*, Sl. *s-*, 3) Bl.-Sl. *sk-/st-* (depending on the quality of the following vowel). In this section the relevant evidence will be examined, without taking into consideration the different theories on $*s\hat{k}$ in general.

2.1. Indo-European $*s\hat{k} >$ Lith. *sk-*, Sl. *sk-* is supported by at least a very clear example (more evidence will be discussed below):

Lith. *skiesti*, *skiedžia* “separate, dilute”, Latv. *šķiēst*, *šķiēžu* “scatter, spill”, intr. Lith. *skisti*, *skiņda* “become flimsy” and *skýsti*, *skýsta* “liquefy”, Latv. *šķīst*, *šķīstu* “melt, liquefy”, Lith. *skýstas*, Latv. *šķīsts* “fluid” etc. Cognates are found in most Indo-European languages: Ved. *chináti* “cut off, split”,

Gk. $\sigma\chi\acute{\iota}\zeta\omega$ “split, cleave”, Lat. *scindō* “split”, ON *skíta* “cacare”, Arm. *c’tim* “scratch (one’s skin)”. The root can be reconstructed as **sĥeid-*.⁴

Slavic stands alone in continuing a form without *s-*:⁵ causative OCS *cĕditi*, SCr. *cijèditi*, Ru. *cedit’* “strain, filter” (< **kāidītēi*), adj. OCS *čistb*, SCr. *čīst*, Ru. *čīstij* “pure” (< **kīsto-*). Given the isolation of Slavic, its “*s*-mobileness” almost certainly must be a specifically Slavic development.⁶

Scholars positing a different development of word-initial **sĥ-* in Balto-Slavic usually assume two forms of the root, **skeid-* for Balto-Slavic, **sĥeid-* for the other (*satəm*) languages,⁷ which is clearly *ad hoc*.

2.2. More examples have been adduced for a development **sĥ-* > Lith. *š-*, Sl. *s-*, but it is doubtful whether any of them resists critical scrutiny:

2.2.1. Two word-families have been usually related to the word for “shadow” Ved. *chāyā*, Gk. $\sigma\kappa\acute{\iota}\acute{\alpha}$, Alb. *hie*, TB *skiyo* (< **sĥéH-ih₂/ *sĥH-(i)jéh₂-s*):

2.2.1.1. Slavic **sinŋti* “flash, start shining” (SCr. *sínuti*, *sīnēm*, Slvn. *síniti*, *sīnem*), **sĥjati* “shine” (OCS *sijati*, SCr. *sĥjati*, Ru. *sĥjāt’*), and the Germanic family of Go. *skeinan*, ON *skína* “shine” (a remarkable word-equation with Slavic **sinŋti*), Go. *skeima* “torch”, OE *scīma* “light, radiance” etc. point to a (post-Indo-European?) root **(s)ĥei-*. Since the Germanic and Slavic forms denote “light”, a connection with the word for “shadow” is questionable from a semantic point of view.

⁴ The $\sigma\chi-$ of Gk. $\sigma\chi\acute{\iota}\zeta\omega$ is problematic and has given rise to alternative reconstructions of the anlaut of this root. Vine (1981, 102ff., 270ff.) discusses the possibility of a complex root **sĥeh₂-i-d-*, which would also account for the lengthened acute vowel of Balto-Slavic. This, however, is now explained through Winter’s Law and does not necessitate a laryngeal. LIV 547f. reconstructs **sĥ^heid-* (< **sĥ^heid-* by Siebs’ Law). Beside $\sigma\chi-$ forms with $\sigma\kappa-$ are also attested ($\sigma\kappa\iota\nu\delta\acute{\alpha}\lambda\alpha\mu\omicron\varsigma$ “splinter” etc., cf. Frisk GEW II 838ff.; Chantraine DELG 1081f.), suggesting that $\sigma\chi-$ is not original. The aspiration of $\sigma\chi\acute{\iota}\zeta\omega$ is thus probably best explained as “expressive” or as taken from other verbs like $\sigma\chi\acute{\alpha}\omega$ “split, open”.

⁵ See Vine (1981, 105f.); Mayrhofer EWAia I 561 against alleged forms without *s-* in Vedic.

⁶ Vaillant (1966, 418) derives Slavic **cĕd-* through false resegmentation in preverbed forms like **is-(s)cĕditi*. If so, the process must have been considerably ancient, as it must have taken place at a time when a connection was still clearly felt between **čistb* and the verb (as it is still the case with Lith. *skýstas*, Latv. *šķīsts* “fluid”). Otherwise there would have been no motivation to change **skīsto-* to **kīsto-*.

⁷ E.g. Brugmann (1897, 545); Endzelin (1939, 107); Stang (1972, 86).

In addition, there is inner-Slavic evidence indicating that **sinḡti*, **sbjati* cannot go back directly to **skēi-*. Slavic **ščirb* “pure, real, genuine” (Ru. *ščiryj*, Pol. *szczery* “sincere”, variant **čirb* in Cz. *čírý*, Slvk. *čírý*) is evidently a perfect word equation of Go. *skeirs*, ON *skírr* etc. “clear” and must continue **skei-ro-* < **skēi-ro-*. Assuming a Germanic borrowing for **ščirb* would be entirely *ad hoc*.

It thus turns out that this root actually provides evidence for **sḡ* > **sk*. Slavic **sinḡti*, **sbjati* must then continue a variant without s-mobile **kēi-*.

2.2.1.2. A connection of Slavic *sěnb* “shadow” (with variants *stěnb*, *těnb*), Latv. *seja*, *seīja*, *sejs* “face; shadow, reflection”, *paseijā* “behind one’s back” with Ved. *chāyā* etc. is semantically better, but is not free of problems either.

ME III 813 gives the following meanings for Latv. *seja* (*seīja*, *seīja*), *sejs*: 1. “die Gesichtsbildung, Physiognomie, das Gesicht”, 2. “der Schatten (apparently used mostly or exclusively for the shadow of a person or of a living creature); das Spiegelbild”. Instead of a connection with Ved. *chāyā* it seems equally possible to start from a meaning “reflection (of one’s body to the sun or of one’s face in a mirror)” and to relate the Latvian words to the “northern-Indo-European” root **(s)kēi-* “shine”.

As for Slavic *sěnb*, *stěnb*, *těnb*, I find a segmentation **skai-ni-* or **skē-ni-* *a priori* suspicious. Once a connection with Sl. **sinḡti*, Gmc. **skīnan* is dismissed, **skēHih₂/*skēH(i)jēh₂s* looks like a derivationally isolated word already within the parent language.⁸ Some derivatives of a root **skēH(i)-* have been proposed (e.g. Gk. *σκηνή*, Dor. *σκᾶνά* “tent”, or *σίρον*, a kind of parasol used in the processions to Athena Skirás), but none is absolutely certain.⁹ Under these conditions, Slavic *sěnb* should be considered a very ancient formation without clear comparanda elsewhere (I doubt Gk. *σκηνή/σκᾶνά* really helps clarifying Slavic *sěnb*), a possibility I find *a priori* unattractive.

Beside the morphological problems, the variants *stěnb* and *těnb* preclude a clear reconstruction even for Slavic alone. According to a common view, *sěnb*

⁸ The nature of the laryngeal is problematic. Mayrhofer EWAia I 559 reconstructs **skēh₁-*, with *h₁* because of OCS *sěnb*, Latv. *sejs*. Rasmussen (1989, 33f., 61) and Ringe (1996, 20) reconstruct **skēh₂-* (compatible with Slavic *sěnb*, but not with Latv. *sejs*). Rasmussen’s best evidence is Gk. *σκηνή/σκᾶνά* “tent”, which is too obscure to be probative. Ringe’s argument for *h₂* is the isolated Dat. pl. *σκαιοῖς* in Nikandros, *Theriaka* 660, which has been disputed.

⁹ Well-grounded skepticism in Frisk GEW II 728, 734; Chantraine DELG 1016, 1019.

would be from **(s)kai-ni-*. *těnb* from **tem-ni-* or **tim-ni-* (cf. OCS *tъma* “darkness”), with vocalism borrowed from *sěnb*. *stěnb* would be a blending of *těnb* and *sěnb*.¹⁰ One cannot deny the possibility of such a chain of events, but it is obviously too complicated to inspire much confidence. I have nothing meaningful to contribute to this Slavic riddle, which is beset with too many problems to be acceptable as *prima facie* evidence for a development **sk̑-* > Slavic *s-*.

2.2.2. Lith. *šáuti*, *šáuna/šáuja* “shoot; shove (bread into the oven); dart, rush”, OCS *sovati*, *sovajō* “throw” etc. have often been equated with ON *skjóta*, OE *scēotan* etc. “shoot”.¹¹

Instead of assuming *d*-enlargement for Germanic, it seems better to equate the Germanic verb with Ved. *códati* “impel” under a root **(s)keud-*. OCS *is-kydati*, SCr. *kìdati*, Ru. *kidát’* “throw”, Latv. *kùdīt* “incite” probably belong here as well.¹²

Lith. *šáuti*, Sl. *sovati* have also been compared with Go. *skewjan* “go”, ON *skæva* “go, hurry”,¹³ which is semantically unattractive.

The Balto-Slavic family thus seems to be isolated. Notice that even if a connection with ON *skjóta* or Go. *skewjan* would be accepted, *s*-mobile could not in principle be excluded.

2.2.3. Lith. *šiáurė* “north”, *šiáuras*, *šiaũras* “cold, northern”, OCS *sěverь* “north, northwind” (SCr. *sjěvêr*, Ru. *séver*). The only clear cognate is Lat. *caurus* “north wind” (< **kh₁uero-*). There is thus no necessity to posit **sk̑-* for Balto-Slavic.

Germanic **skūrō* “shower” (Go. *skura windis* “storm (of wind)”, ON *skūr*, OE *scūr* etc.), on which the reconstruction of Bl.-Sl. **sk̑-* was based, is almost certainly unrelated, cf. de Vaan (1999).

2.2.4. Slavic **sbrati*, **sere-* “cacare” (Ru. *srať*, Pol. *srać* etc.), Ru. *sor* “dung, excrement, litter” have been related to the word for “excrement” Hitt. *sakkar*, *saknas*, Gk. *σῶκος*, *σκατός*, Gmc. **skarna-*.¹⁴ The traditional reconstruction with a palatal (**sók̑-ŕ*/**sék̑-ŕ-s*, coll. **sék̑-ōŕ*/**sék̑-n-és*) depends on Slavic **sbrati* as well as on some Iranian and Baltic material (YAv. *sairiia-*

¹⁰ E.g. Vasmer REW III 11; Shevelov (1964, 233, 323).

¹¹ E.g. Brugmann (1897, 567); Endzelin (1939, 114); Stang (1972, 85).

¹² Cf. LIV 507; Lubotsky (2001, 29). See Demiraj (1997, 197f.) on Alb. *hedh* “throw”, which is frequently equated with ON *skjóta*, Ved. *códati* as well. Demiraj derives *hedh* from **sK-ed^h-o-*.

¹³ E.g. Trautmann (1923, 300); Fraenkel LEW 969.

¹⁴ E.g. Walde-Hofmann LEW II 133f.

“dung, excrement” V 8, 8; Latv. *sārņi* “dung”). But the way a neo-root **s̄ker-* was extracted from a heteroclitic noun is far from obvious. Since **s̄rati* is a primary verb, there is no particular reason to posit a problematic connection with Hitt. *sakkar*, Gk. *σαῶρ* etc. instead of deriving it from a root **ker(H)-* (LIV 327), or **ser-* (Fraenkel LEW 513, 764).

2.3. Although a development **s̄k̂* > **st* has been argued by several scholars, evidence in anlaut was presented only by Pedersen (1943), according to whom **s̄k̂* yielded **st* before front vowels, **sk* before back vowels. In initial position he gives three examples of **s̄k̂* > **st*, all of them involving s-mobile:

Slavic *stěnb* (< **s̄k̂-*) beside *šěnb* (< **k̂-*) “shadow”,

Lith. *stirna* “roe”, *stirninias* “roebuck”, Latv. *stīrna* (< **s̄k̂-*) beside OLatv. *sirna*, ORu. *s̄rna*, SCr. *s̄rna*, Pol. *sarna* etc. (< **k̂-*),

RuCS *s(t)rb̄šenb*, Bulg. *st̄r̄šel/št̄r̄šel* beside ORu. *s̄rb̄šenb*, OPol. *sierszeń*, SCr. *s̄r̄šlj̄en* “hornet” (: Lith. *širšuõ*, *širšė*, Lat. *crābrō*).

However, neither the word for “shadow” nor the root for “horn, head” (which are fairly well-attested) show any evidence of s-mobile. As already observed, Slavic *šěnb/stěnb/těnb* is simply too problematic to be used as evidence, whereas the *-t-* of Lith. *stirna* and RuCS *str̄b̄šenb* can easily reflect some type of folk etymology, secondary contamination, or taboo deformation.¹⁵

3. Summing up the results achieved so far, we can say that **s̄k̂-* > Lith. *sk-*, Sl. *sk-* is better supported than **s̄k̂-* > Lith. *š-*, Sl. *s-* and **s̄k̂-* > Bl.-Sl. **st-*. The etymologies supporting Lith. *š-*, Sl. *s-* are almost certainly false, or at least extremely doubtful, whereas Pedersen’s *st-* depends on very problematic evidence. Evidence for *sk-* is restricted to the family of Lith. *skiesti*, OCS *čediti*, and is supported by Slavic **ščir̄b̄*. Notice that these cases show that **s̄k̂-* > *sk-* took also place regularly before front vowels.

Before turning to the development of **s̄k̂* in anlaut, there are some general issues on which I would like to comment:

3.1. Cases like *skiesti* have often been explained as *centum*-variants.¹⁶ I find this approach methodologically questionable. Instances of unexplained *Gutturalwechsel* in Baltic and Slavic can of course not be denied, but it would certainly be preferable to sort out at least some clear instances of conditioned

¹⁵ So e.g. Fraenkel LEW 909 (*-t-* from *taūras* “aurochs”, cf. Lith. *stūmbras*, Latv. *stumbrs* beside OLatv. *sumbrs*, *subrs*, *sūbrs* “bison”), or Smoczyński (2007, 604). A list of proposed solutions for *stirna* is given by Karulis (1992, 933f.).

¹⁶ E.g. Brugmann (1897, 545ff.); Endzelin (1939, 107ff.); Bräuer (1961, 172); Mottausch (2006, 44f.), among other.

neutralization of palatals and velars. Neutralization after *s is certainly the best case we have.

3.2. OCS *čediti*, *čistv* beside Lith. *skiesti*, *skáidyti*, *skýstas* and Slavic *ščirv beside **sinoti*, **svjati* (and eventually Latv. *seja*, *sejs*) testify to the importance of s-mobile for the issue at hand. As already observed by Meillet (1894, 297), an alternation **ĥ-* : **sk-* may easily lead to **k-* (: **sk-*) : **ĥ-*.¹⁷ This provides a reasonable way of accounting for some cases of apparent *Guttural-wechsel* even in roots where the crucial initial s- is not attested.

A clear example is Lith. *šėivà* “bobbin” (< **ĥ-*) vs. Ru. *cévka* “shin(-bone) of a horse, bobbin” (< **k-*). Cognates include OE *scīa* “shin, leg” (with s-mobile), Ved. *aṣṭhīvā(nt)-* “shank, shin-bone”, YAv. Acc. sg. *ascūm* “shin, shink” (< IIr. **Hast-čīHua-*), perhaps Gk. *κίων*, Arm. *siwn* “pillar”, see the detailed treatment by Lubotsky (2002). Other examples: Slavic **kopyto* “hoof” ~ Ved. *śaphá-* “hoof”,¹⁸ ORu. *ščupati* “touch” ~ Skt. *chup-* “touch” (Grammarians),¹⁹ OCS *kotora* “fight” ~ Ved. *śátru-* “enemy”,²⁰ Slavic **kosa* “scythe” ~ Ved. *śāsti* “cuts”, *śástram* “knife”,²¹ perhaps Lith. *šókti* ~ OCS *skočiti* “spring, hop”.²² The list can easily be enlarged. While some examples are surely questionable, it can hardly be the case that all of them are false.

3.3. Building on earlier ideas of Zubatý and Meillet, Lubotsky (2001) has recently argued that Indo-Iranian inherited only **sk*, with neutralization of palatal **ĥ* and velar **k* after *s. I refer to Lubotsky’s article for a full discussion of the data and simply take his results for granted.

¹⁷ Similarly Kuryłowicz (1935, 20); Kortlandt (1978, 238).

¹⁸ Slavic data in Vasmer REW I 621; ÉSSJ XI 35ff., where an inner-Slavic derivation from *kopati*, *-ajō* “dig” is favored. Even in this case the semantic agreement between Slavic **kopyto* and Ved. *śaphá-*, YAv. *safa-* (cf. also OHG *huof* etc. < **kōp-*) remains striking, see the references given by Mayrhofer EWAia II 608.

¹⁹ Cf. Vasmer REW III 454; Mayrhofer EWAia III 204.

²⁰ Cf. ÉSSJ XI 200f.; Mayrhofer EWAia II 607.

²¹ Cf. Walde-Hofmann LEW I 179f.; Vasmer REW I 639f.; Mayrhofer EWAia II 626. ÉSSJ XI 133ff. and Derksen (2008, 238) relate Sl. *kosa* “scythe” to *kosa* “hair, braid”, *česati* “comb”, which I find unlikely.

²² The alternation Lith. *šókti*, *šóka* “jump”, Latv. *sākt*, *sāku* “begin” ~ OCS *skočiti*, *skočō* “jump”, Ch.Sl. *skokъ* “a jump” ~ Lith. *kuokinė* “Abendvergnügend mit Tanz” could be explained from **ĥeh₂k-* : **skh₂k-* (< **sĥh₂k-*) : secondary **koh₂k-*, but this example is insecure (cf. Fraenkel LEW 1021f.). A more widespread view relates OCS *skočiti* to OHG *gi-skehan* “happen”, MHG *schehen* “hurry”, OIr. *scuchaid* “move” (e.g. LIV 551f.).

When compared with the undeniable evidence for a similar neutralization of $*s\hat{k}$ and $*sk$ in Balto-Slavic, Lubotsky's findings evidently raise the possibility that the neutralization was already Proto-Indo-European. The evidence of the Luvian languages indicates that it was not. Melchert (1987, 198ff.; 1989, 27ff.) gives two possible cases of $*s\hat{k} > *sz > \text{Luv. } z, \text{ Lyc. } s$: the iterative verbal suffix CLuv. $-z(z)a-$, HLuv. $-za-$, Lyc. $-s-$ (: Hitt. $-ski/a- < *-s\hat{k}e/o-$),²³ and the "ethnic" adjective suffix CLuv. $-iz(z)a-$, HLuv. $-iza-$, Lyc. $-is(e)-$, which Melchert derives either from $*-i\hat{k}o-$ or (following a suggestion of Jasanoﬀ) from $*-is\hat{k}o-$.²⁴ I believe at least the first one provides firm evidence on the development of $*s\hat{k}$ in Luvian and precludes the neutralization of $*s\hat{k}$ and $*sk$ to be Indo-European in date. This, however, doesn't exclude the possibility of an early isogloss uniting some of the *satəm* languages.

In this connection, it is interesting to bring into consideration a curious "statistical" fact. It suffices to take a look at any etymological dictionary to observe that roots beginning with $*(s)k-$ are abnormally more numerous than roots beginning with $*(s)\hat{k}-$, although otherwise no particular preponderance of $*k$ over $*\hat{k}$ can be observed. The LIV (546ff.) includes 31 roots beginning with $*(s)k-$, 3 with $*(s)k/\hat{k}-$ (attested only in *centum* languages), and 1 with $*(s)k^{(w)}-$ (attested only in Balto-Slavic), against only 4 roots beginning with $*s\hat{k}-$ and 2 beginning with $*s\hat{k}^h-$. For four of these roots the reconstruction of a palatal depends exclusively on Indo-Iranian data and have now been explained by Lubotsky as not necessitating an anlaut $*(s)\hat{k}-$.²⁵

²³ E.g. CLuv. *kappilazza-* "become hostile" (: **kappilā(i)-* "be hostile", cf. Hitt. 3 pl. *kappilāir* KUB 24.7 i 28 and CLuv. *kappilalla/i-* "hostile, enemy"), HLuv. *ta-za-* (: *ta-* "stand"), Lyc. 3 pl. *ta-s-ñti* (: *ta-* "put, place"). Luvian iteratives in $-z(z)a-$ unexpectedly follow the *hhi*-conjugation. Melchert (1987, 201) attributes this to the influence of the iteratives in $-s(s)a^{-i}$ (: Hitt. $-ssa^{-hhi}$, e.g. $\bar{i}ssa^{-hhi}$ to iya^{-hhi} "make"), which became productive in Luvian (type CLuv. *pipissa-* to *piya-* "give" etc.).

²⁴ E.g. CLuv. ^{URU}*Taurisizza-* "of Taurisa" (: ^{URU}*Taurisa-*), Lyc. *Ijānis(e)-* "Ionian" (: *Ijāna-*). Derivation from $*-i\hat{s}\hat{k}o-$ would have the additional interest of bringing the relational suffix of Germanic and Balto-Slavic out of its dialectal isolation. The other Anatolian languages do not help making a choice between $*-i\hat{k}o-$ and $*-i\hat{s}\hat{k}o-$. Melchert (1987, 201) tentatively compares Pal. ^d*Gulzannikes* (: **gulzann-* to *gulzatar*) and Hitt. *ma/ilisku-* "weak" $< *ml-isko-$, with secondary *u*-stem taken from its antonym *dassu-* "strong" (Melchert 1989, 29¹²).

²⁵ Lubotsky (2001, 32ff.). The roots are (in LIV's reconstruction) $?*s\hat{k}ed-$ "cover" (Ved. *chādāyati*), $?*s\hat{k}end-$ "appear" (Ved. *chadāyati*, YAv. *sadaiēiti*, aor. Ved. *acchān*, GAv. *sqs*), $?*s\hat{k}erd-$ "pour over" (Ved. *chṛṇāti*), $*s\hat{k}^heh(i)-$ "cut, skin" (Ved. *chyāti*, Gk. *σχάω*). Notice that only the last one is free of problems from an etymological point of view.

We are left with only two roots with $*s\hat{k}$ - represented in Balto-Slavic: $*s\hat{k}^h ejd$ - “split, divide” and $*s\hat{k}eH(i)$ - “shine” (in LIV’s reconstruction, *recte* $*s\hat{k}ejd$ -, $*(s)\hat{k}ei$ -, see above §2.1., 2.2.1.). As already discussed, $*s\hat{k}ejd$ - (Lith. *skiesti*, OCS *čěditi*) is actually the best example for $*s\hat{k}$ > Bl.-Sl. *sk*-, whereas the reconstruction of a root $*s\hat{k}eH(i)$ - for the Indo-European word for “shadow” and the “northern Indo-European” family of Gmc. **skīnan* “shine”, Sl. **sinqti* “start shining”, *sěnb/stěnb/těnb*, Latv. *seja, sejs* “shadow” is probably false, and even in this case $*s\hat{k}$ > Bl.-Sl. *sk*- is assured by Slavic $*šcīrv$.

It thus seems that we are left without a single reliable example of Indo-European initial $*s\hat{k}$ -. Even if $*s\hat{k}$ and $*sk$ were not neutralized in the parent language itself, this is precisely the picture we would expect if they were in Indo-Iranian, Baltic and Slavic, as the reconstruction of a palatal or a velar relies almost exclusively on the evidence of these languages. Whether a similar neutralization of $*s\hat{k}$ and $*sk$ took place in Albanian and Armenian, as it has often been proposed, is a question I will leave open. Now that Indo-Iranian and Balto-Slavic have almost vanished as positive evidence for $*s\hat{k}$ -, it is clear that the Albanian and Armenian data must be addressed in a different way than it has traditionally been done. At least as a reasonable working hypothesis, I suggest viewing the neutralization of $*s\hat{k}$ and $*sk$ in Indo-Iranian and Balto-Slavic as a common isogloss, an isogloss that would pattern naturally with two other well-known sound changes uniting these branches, the *ruki*-rule and the unconditioned merger of velars and labiovelars – both features not shared by the other *satəm* languages.

4. Now that the development of $*s\hat{k}$ in anlaut has been clarified, we can turn to its development in inlaut. Before discussing the evidence, some general considerations will be in order:

Some scholars have posited different treatments of $*s\hat{k}$ depending exclusively on word-position. This is in principle conceivable, but unless supported by very strong evidence such a possibility is far less attractive than assuming the same development in anlaut and inlaut.

A similar *caveat* applies to the theories that posit different developments for Baltic and Slavic. Although, once again, this is not unconceivable, one would in principle not expect a different treatment in both branches.

The following outcomes of word-internal $*-s\hat{k}$ - have been proposed: 1) Bl.-Sl. *-sk-*, 2) Lith. *-šk-*, Sl. *-sk-*, 3) Lith. *-š-*, Sl. *-s-*, 4) Bl.(-Sl.) *-st-*.

4.1. Since word-initial $*s\hat{k}$ - clearly yielded Bl.-Sl. *sk*-, one would expect the same development in inlaut. Positive evidence is (predictably) slim (more

evidence relating to the development of word-internal *-sĕk- will be discussed below):

4.1.1. The best example is Lith. *ieškóti*, *ieško* “search for”, Latv. *iēškāt*, *iēškāju* “look for lice”, OCS *iskati*, *iskō* “search for”, cf. Ved. *iccháti*, YAv. *isaiti*, Arm. *hayc’em*, OIr. *escaid*, OHG denom. *eiscōn*. Attempts to dispense with *ieškóti/iskati* are evidently desperate.²⁶

4.1.2. The “northern Indo-European” relational adjective suffix Gmc. *-iska-, Lith. -iška-, OCS -bško- is also usually derived from *-isĕko-. Apart from the Luvian suffix -iz(z)a-, Lyc. -is(e)- (which could also stem from *-iĕko-), I am not aware of any positive evidence indicating that we have to reconstruct *-isĕko- rather than *-isko-.

4.1.3. OCS *ešte* “still”, Ru. *eščĕ*, Pol. *jeszcze* etc. “still”, cf. Ved. *áchā* “to, towards”, Arm. *c’* “to”. The background of these and related formations is somewhat unclear. *-sĕk- is possible, but by no means assured, cf. Lubotsky (2001, 41f.).

4.1.4. Neutralization of *ĕ and *k after *s would practically be proven if Vaillant’s analysis of OCS *laskrǫdb* “desire”, Slvn. *láskrn* as a compound of *las- and *ĕrd- “heart” (OCS *srǫdbce*) is correct.²⁷ The alternative account of *laskrǫdb* as haplogized from *laskosǫrdb (RuCS *laskosǫrdyj*), however, cannot be categorically dismissed.²⁸

²⁶ *Gutturalwechsel* has often been proposed (e.g. Endzelin 1939, 107; Bräuer 1961, 172; Aitzetmüller 1978, 38). The idea of a suffix variant *-sĕke/o- beside *-sĕke/o-, seriously entertained in the older literature (e.g. Brugmann 1916, 351f., 360), was a device invented to account for Balto-Slavic cases like *ieškóti/iskati*, but is now entirely untenable. A Germanic borrowing was assumed by Brugmann (1897, 781) and Leumann (1942, 128f.). Smoczyński (2007, 216) takes *ieškóti/iskati* as a denominative from a noun **h₂eis-ko-* > Lith. *ieškas*, *paieškà*, Latv. *ieska*, Ru. *isk*, cf. Ved. *icchá*, OHG *eiska*, Arm. *ayc’*, but the thematic present of Slavic and OLith. *ieszku* (Universitas) proves that we are dealing with a primary verb. Ved. *icchá* etc. are evidently back-formed from the original present stem, but even if an ancient *ko-*derivative could be assumed, the possibility that it had any influence on the verb is vanishingly small. The vocalism of Balto-Slavic **eiska/e-* is notoriously problematic, but has no bearing on the antiquity of the *sĕke/o-*present as such, see Villanueva (2008, 185f.), with references.

²⁷ Vaillant (1932, 1950, 38). Cf. Ru. *lásyj*, Pol. *łasy* “greedy, eager”, Lith. *lokšnius* “sensitive” < **las-nu-* (Smoczyński 2001, 378ff.) for the original shape of the Slavic root as **las-* (not **lask-*, Cz. *láska* “love” etc.).

²⁸ So e.g. Vasmer REW II 16; ÉSSJ XIV 40.

4.2. The notion that $*-s\hat{k}-$ yielded Lith. $-\check{s}k-$ (as opposed to $*-sk- > -sk-$) was dependent on the belief that $*s$ did not yield \check{s} after $*i, *u$ in Baltic. This controversy of Baltic historical phonology was definitively solved in the late sixties. As the articles of Karaliūnas (1966), Hamp (1967), and Andersen (1968, 1970) made patently clear, in Baltic (as in Slavic and Indo-Iranian) $*s$ was regularly retracted after $*i, *u$ as well as after $*r, *k$, but was followed by a strong tendency to level out the effects of the *ruki*-rule in favor of s . It follows that *ieškóti* and *-iška-* fall as evidence for a development $*-s\hat{k}- > \text{Lith. } -\check{s}k-$.

Būga (1922, 251f.) gave a list of words supporting $*s\hat{k} > \text{Lith. } \check{s}k$ against $*sk > sk$:

- $*s\hat{k} > \check{s}k$: *áiškus* “clear” (: RuCS *jasnъ* < $*aiskna-$ “id.”), *pùškas* “black-head”, *tėkšti, tēškia* “splash, slap”, *trėkšti, trėškia* “crush”, *trāškana* “sleep (in the eyes)”, *vāškas* “wax” (: OCS *voskъ*, OHG *wahs*), *reikšti, reiškia* “mean”, *ráiškus* “clear” (: OCS *řesnъ* < $*raiskna-$ “true”), *rėkšti, rėškia* “pluck” (iter. *raškýti*), *rúškanas* “gloomy”, *láiškas* “letter; leaf”, *kiškà* “thigh”, in addition to *ieškóti* and *-iška-*.
- $*sk > sk$: *drėksti, drėškia* “scratch”, *lāškana* “worn-out clothes, rag”, *lūskos* “peel, rind”, *plėiskanos* “dandruff”, *pliauskà* “log”, *viskėti, vīska* “ripple”, *tvískėti, tvīska* “shine, glitter”, *sūskis* “scab, scabby”.

It is unnecessary to discuss these items in detail, as none of them has a sufficiently clear background to serve as evidence for a development $*-s\hat{k}- > \text{Lith. } -\check{s}k-$.

The case of Lith. *vāškas*, OCS *voskъ*, OHG *wahs*, to which Stang (1972, 82ff.) attached so much importance, is illustrative. Stang argues that the traditional explanation of Balto-Slavic $*vaškas$ as metathesized from $*uo\hat{k}so-$ is unacceptable because $*\hat{k}s$ would have given Lith. \check{s} , Sl. s (cf. Lith. *ašis*, OCS *osъ* “axle” < $*h_2ak\hat{s}-i-$), while a pre-form $*uosko-$ (< $*uos\hat{k}o-$) would not explain the \check{s} of Lith. *vāškas*. Kortlandt (1979, 59) reconstructs $*uo\hat{k}sko-$, dissimilated to $*uo\check{s}ko-$ in Balto-Slavic and to $*uokso-$ in Germanic. However, I am not aware of any independent evidence assuring that we are dealing with a palatal $*\hat{k}$. Both metathesis from $*uokso-$ and Kortlandt’s $*uo\hat{k}sko-$ (or $*uoksko-$) would thus explain the \check{s} of Lith. *vāškas*. In any case, it is *a priori* questionable that a non-trivial sound change should depend entirely on a cultural term of restricted dialectal distribution.

Finally, Endzelin’s observation that no inherited words in Lithuanian begin with $\check{s}k-$ (Endzelin 1939, 110) is a fairly strong argument against $*s\hat{k} > \text{Lith. } \check{s}k$.

4.3. Curiously, the failure to recognize the regularity of the *ruki*-rule after *i, *u has also played a major role in the view that word-internal *-sĕ- gave Lith. -š-, Sl. -s-.

Brugmann's evidence in inlaut was limited to some verbs allegedly from sĕ/o-presents (Brugmann 1897, 567f.): OCS *pasti*, *pasq* "pasture" (: Lat. *pascō*, -ere), Lith. *gaišti*, *gaišta* "loiter, tarry; disappear, vanish" (: Lat. *haereō*, -ēre "adhere, stick"), *trišėti*, *triša* "tremble" (: YAv. *t̥r̥asaiti*, OPers. *t̥r̥satiy* "is afraid"), *rušėti* "be lively, active" (: OSw. *rusca* "hurry", OHG *rask* "fast"), *aūšti*, *aūšta* "dawn" (: Ved. *ucchāti* "shine"), remade as a *sta*-presents from *aūša.

The š of *aūšti*, *gaišti*, *rušėti* is now trivially explained as due to the *ruki*-rule. Brugmann's etymologies of *gaišti*, *rušėti* are in any case probably false (see Fraenkel LEW s.v.). *trišėti* must have a secondary zero grade **triš-* for **tirš-* after full grade **tres-* (LIV 651⁷). The *sa*-present of YAv. *t̥r̥asaiti*, OPers. *t̥r̥satiy* can easily be an Iranian innovation and does not guarantee an Indo-European sĕ/o-present **t̥rs-sĕ-ti*. Finally, there is no particular reason to favor an equation of Slavic *pasti* with Lat. *pascere* over one with Hitt. *pahhs-* "protect". The second option is proved to be the correct one by its Baltic cognate OLith. *pósėti*, *pósa* "worship".²⁹

Brugmann's account of *aūšta* as a *sta*-present replacing an earlier **aūša* (< **h₂us-sĕ-ti*, with secondary full grade from *aušrà* "dawn" or some other nominals) aimed to explain the š of inf. *aūšti* and pret. *aūšo*. The same principle was applied by Endzelin (1939) to explain other cases of š where he expected s: *miršta* "dies" would be a secondary *sta*-present to **mirša* < **m̥r̥-sĕ-ó-*, *tùščias* "empty" would be a contamination of **tušias* (< **tusk̥ijos*) and **tustijos*, -*iška-* a contamination of *-*iša-* (< *-*iskō-*) and *-*iska-* (< *-*isko-*), *maišas* "bag" would continue **moiskō-* against **moiso-* in OCS *měxъ* "wine-skin", ON *meiss* "basket", Ved. *meṣá-* "ram" etc.³⁰

There is no point in discussing the evidence in detail. Solutions like these were unsatisfactory when they were proposed, and today they are simply unnecessary.

In spite of their relative popularity, I conclude that both **sĕ* > Lith. *šk*, Sl. *sk*, and **sĕ* > Lith. *š*, Sl. *s* are founded on almost embarrassingly shaky grounds.

²⁹ Surprisingly, Brugmann's equation OCS *pasti* = Lat. *pascere* has been occasionally repeated even after Hitt. *pahhs-* became well-known (e.g. Endzelin 1939, 113; Bräuer 1961, 172; Aitzetmüller 1978, 38; Birnbaum-Schaeken 1997, 87; Smoczyński 2007, 216¹⁷⁴). The derivation of OLith. *pósėti* and other Baltic material from **peh₂s-* is due to Karaliūnas (1972).

³⁰ So also Fraenkel (1950, 281f.).

4.4. Unlike all other theories surveyed so far, the attempts to posit a sound-law $*s\hat{k} > \text{Bl.(-Sl.) } st$ diverge greatly among each other (see above §1). As we have already seen (§2.3.), there are no good examples of $*s\hat{k} > \text{Bl.(-Sl.) } st$ in anlaut. In anlaut the following evidence has been adduced:

4.4.1. The goal of positing $*s\hat{k} > \text{Bl.(-Sl.) } st$ has always been to derive the Baltic *sta*-presents directly from the Indo-European *ske/o*-presents. The origin of this formation remains controversial and cannot be discussed in detail in this article. I refer to Villanueva (forthcoming) for criticism of this and other theories and a new proposal.

4.4.2. OCS *listv* “leaf” (beside Lith. *laiškas/laiškas* “leaf, letter”). According to Pedersen (1943, 191), the *-st-* of *listv* was taken from the collective in *-vje* (Ru. pl. *liš’ja*), where it was regular. Kabašinskaitė-Klingenschmitt (2006, 184⁴⁹) posit OCS *listv* “leaf” < $*(u)leis\hat{k}u-$ against *centum* reflex in Lith. *laiškas* < $*(u)lois\hat{k}o-$.

The etymology of Slavic *listv*, Lith. *laiškas*, however, is unknown. Since the Baltic and Slavic words diverge in root vocalism, it is also possible that they contain different suffixes.

4.4.3. Lith. *tūkstantis*, Latv. *tūkstuõtis* (OLatv. *tũstuoš-*) “thousand” < $*tũstant-$ < $*tũs\hat{k}m\hat{t}^\circ$ (: OPr. *tũsimtons*, OCS *tysqšti*, *tysqšti*, Gmc. **þũsundĩ*, **þũsandĩ*).

Leumann (1942, 127f.) posits $*tũs-\hat{k}m\hat{t}iom$ or *-iã* “Kraft-hundert” (OPr. *tũsimtons* would be dissimilated from $*tũstimta-$), Hamp (1973) a present participle $*tũ-s\hat{k}ont-$ (East Baltic $*tũstant-$, OCS *tysqšti*), $*tũ-s\hat{k}nt-$ (OPr. *tũsimtons*, OCS *tysqšti*), Klingenschmitt (2008, 417²⁰) $*tũHs-\hat{k}ont-ih_2$, $*tũHs-\hat{k}m\hat{t}-i\hat{a}h_2-s$ “Kraft-Dekade” > Bl.-Sl. $*tũstantĩ$, $*tũstimtiãs$ (with dissimilation in OPr. *tũsimtons*, OCS *tysqšti*, *tysqšti*).

In spite of its inherent appeal, the idea that the northern Indo-European numeral “1000” derives from a compound with second member $*\hat{k}m\hat{t}óm$ “100” is simply not necessarily right. Hamp’s $*tũ-s\hat{k}ont-$, a participle to a *ske/o*-present, needs not be correct either. Even if such reconstructions could account for the Baltic and Slavic forms, which I believe is certainly not the case, they cannot account directly for those of Germanic (Go. *þũsundi* etc.).³¹

³¹ Germanic points to $*þũs^\circ$ (Go. *þũsundi*, OE *þũsend*, OS *thũsundig*, OHG *dũsunt*, *thũsunt*). Given its limited distribution, the North Germanic variant $*þũsh^\circ$ beside $*þũs^\circ$ (Oic. *þũshund*, Oic., Runic Sw. *þũshundrað* beside Oic. *þũsund*, Runic Sw. *þũsind*, OSw. *þũsand*, *þũsund*) is better explained as having taken *-h-* from “hundred” than as an archaism.

The Finno-Ugric borrowings from Baltic (Finn. *tuhat*, Mordv. *t'ožén, t'oža, t'ožov*, Čerem. *txžem, tüžem*) demand *-š³² and thus cast serious doubts on the antiquity of East Baltic *-st-*.

This is not the place to discuss the severe problems posed by this numeral. I refer to Pijnenburg (1989) and Lühr (1993) for criticism of these and other theories and a detailed treatment of the evidence and the literature. See also Lühr (1993, 123ff.) for an attractive alternative account starting from **tūsont-*, a participle to an extended root **teuh₂S-* “schwellen”.

4.4.4. Lith. *tūščias* (pl. *tušči*), Latv. *tukšs*, OCS *tvštъ* (Ru. *tóščij*, Pol. *czczy*, SCr. *tāšt* etc.) “empty” and Ved. *tucchyá-* “empty, vain” look like an almost probative word equation.³³ Baltic clearly has inherited **tuštija-*. Slavic **tvščь* is ambiguous (< **tuskija-* or **tustija-*). This equation then seems to indicate **ŝk > Bl.(-Sl.) *st* at least before **i*.

Beside **tvščь* we also have Slavic **tvška*, with specialized meaning, in ORu. *tvška*, Ru. *toská* “grief, longing” < **“emptiness”* (see Vasmer REW III 128 for more derivatives).

In Indo-Iranian we have Ved. *tucchyá-* “empty, vain”, MPers. *tuhīg*, Khot. *tusáa-* < **tusk̂iǵo-* (Ved. *tucchá-* is probably a secondary development from *tucchyá-*). The primary verb is preserved in Iranian: YAv. *tusən* “they lose” (< **tus-ŝke/o-*), causative *taošaiieiti* “leaves hold of” (< **tous-éje/o-*), Balochi *tust/tus-* “suffocate”, *tost/tos-* “extinguish” (Cheung 2007, 388f.).³⁴

**tusk̂iǵo-* is probably to be seen as a derivative of **tusk̂ó-*, preserved in ORu. *tvška*. As observed by Lubotsky (2001, 42), the assumption that **tusk̂ó-*, **tusk̂iǵo-* depend on a *ŝke/o-* present **tus-ŝke/o-* is unlikely on morphological grounds, and the Iranian *sa-* present can easily be an innovation. Notice that this implies that there is no reason to favor a reconstruction **tusk̂iǵo-* over **tusk̂iǵo-* and that it is not absolutely certain that we are dealing with an Indo-European rather than with a specifically Indo-Iranian coinage. The question is then whether an acceptable derivational account of Balto-Slavic **tustija-* can be opposed to the apparently unobjectionable equation Lith. *tūščias* = OCS *tvštъ* = Ved. *tucchyá-*.

³² Cf. Stang (1966, 282).

³³ So Pedersen (1943, 186); Kabašinskaitė-Klingenschmitt (2006, 184⁴⁹); Klingenschmitt (2008, 417²⁰); Gorbachov (forthcoming).

³⁴ Whether Lat. *tesca*, *tesqua* belongs here is very doubtful. It would imply *Schwebeblaut* **tues-* ~ **teus-*, and it is in any case not quite clear that its meaning was “wild land”. Cf. de Vaan (2008, 617), with reference to Chanut, and Álvarez-Pedrosa Núñez (1997) for discussion and alternative accounts.

Smoczyński (2001, 161, 410, 2007, 696) and Lloyd-Lühr-Springer (1998, 739f.) explain Balto-Slavic **tustija-* as a *jo*-derivative to the past passive participle **tus-tó-*. For a parallel cf. Lith. *stāčias* “upright, erect, standing” < **statija-* to **stata-* < **sth₂-tó-* (e.g. in *statyti* “build”). The crucial **tus-tó-* is directly continued in OE *đost*, OHG *dost* “excrement, dung” < Gmc. **pusta-*, with meaning from a trivial euphemism “empty one’s self, evacuation (of the belly)”.

I believe this account of Lith. *tūščias*, OCS *tbštъ* is entirely acceptable. Since a development **sĕ̃ > Bl.-(Sl.) st* is otherwise unsupported by clear etymologies, a derivation from **tustjo-* ← **tus-tó-* is preferable to a direct equation with Ved. *tucchyá-*.³⁵

4.4.5. Gorbachov (forthcoming) has recently proposed deriving the Old Prussian diminutive suffix *-(i)stian* from a complex relational suffix **-isk-ijo-m* (> Baltic **-istiija-*), which he compares with the Tocharian relational adjectives B *-šše*, A *-ši* (e.g. B *yäkwe-šše*, A *yuka-ši* “equine” ← B *yakwe*, A *yuk* “horse”).

In Old Prussian *-(i)stian* is well attested for young farm animals: *wosistian* “baby goat” (: *wosee* “goat”), *gertistian* “chicken” (: *gertis* “rooster”), *parstian* “piglet” (: Lith. *pařšas* “pig, piglet”), etc. It is also found in toponyms (*Wangiste*, *Pelisten*, *Grabisto*) and anthroponyms (*Begist*).³⁶ In Lithuanian one finds diminutives and augmentatives in *-iščias* (*-ia*, *-ė*), *-yščia*, *-yščius*, *-yštis* (*-ė*), *-ištis* in some southern and eastern frontier dialects (e.g. *ėriščias* “lamb”, *pařšiščias* “piglet”, *arklištis* “small horse”, *raņkiščia* “small hand”, *meřgiščia* “small girl”, *vaikiščias* “small boy” and “big boy”, etc.).³⁷ Latvian evidence is restricted to some scattered diminutives in *-istenš* in eastern dialects (*akmistenš*

³⁵ Earlier attempts to dispense with Lith. *tūščias* as evidence for **sĕ̃ > st* were evidently unsuccessful. Būga (1922, 287ff.), following earlier ideas of Agrell, proposed **sĕ̃j* > Lith. *šč* against **skj* > Lith. *sk'*, whereas both **sĕ̃j* and **skj* would have given *sk* in Latvian. This is *a priori* unlikely and Būga’s further examples (Lith. *čiaudėti*, Latv. *šķaudāt* “sneeze”) certainly do not suffice to prove it. Kuryłowicz (1935, 20) and Lubotsky (2001, 43) assume an early Slavic borrowing, which is *ad hoc*. Trautmann (1923, 333) started from a reconstruction **tus-sk-tjo-*, but the morphology of this form would be difficult to account for (as observed by Lubotsky 2001, 43³⁷, **-tjo-* usually forms adjectives from local adverbs). According to Endzelin (1939, 108) *tūščias* would be a cross of **tusĕjo-* > **tuščias* and **tustjo-*.

³⁶ Cf. Endzelin (1943, 53).

³⁷ Cf. Ambrazas (2000, 100ff.).

“small stone”, *uoglisteņa* “small coal”),³⁸ which do not really agree with the profile of OPr. *-(i)stian* and dial. Lith. *-iščias*. Given their very limited dialectal diffusion, the Lithuanian diminutives and augmentatives in *-iščia-* can be suspected of being borrowed from Slavic, as suggested by Endzelin (1943, 53⁴²), or from a West Baltic (Jotvingian) substratum, as per Specht (1938). A suffix *-istia-* is thus assured only for West Baltic.

The origin of this West Baltic suffix has received little attention in the literature. A connection with an “Illyrian” suffix *-ist-* (in toponyms like *Burnista*) was favored in the older literature (Endzelin, Specht *loc. cit.*). Gāters (1955, 52) compared *-istia-* with the superlative suffix of Ved. *máhiṣṭha-*, Gk. *μέγιστος*. While surely superior, Gorbachov’s **-isk-ijō-m* would be isolated as a potential witness of a sound change **sĥ > st*. The Tocharian adjective suffix B *-ṣṣe*, A *-ṣi* is usually derived from **-sio-*, a *io-*-derivative of **-so-*.³⁹ I thus doubt whether OPr. *-(i)stian* can be considered an acceptable example.

While some cases are eye-catching, the evidence for **sĥ > st* is either too problematic to be seen as probative (OCS *listv*, Lith. *tūkstantis*, OPr. *-(i)stian*, Baltic *sta-*presents), or can be explained in some other way (Lith. *tūščias*, OCS *tvštъ*). This view is forced to *ad hoc* solutions for part of the evidence (widespread *Gutturalwechsel*, dissimilation in OPr. *tūsimtons* and eventually in OCS *tyṣṣti*, *tyṣṣti*), or to very complicated scenarios, entailing different treatments in Baltic and Slavic and different outcomes depending both on word-position and phonological context. I thus conclude that **sĥ > Bl.(-Sl.) st* cannot be correct.

5. To sum up the results of this study, an unconditioned sound change **sĥ > Balto-Slavic *sk* can now be regarded as well-established. Other proposed outcomes of **sĥ* are built on doubtful evidence and are at odds with part of the evidence. Cases like Slavic **ščirъ* / **sinṣti*, **sṣjati*, Lith. *šėivà* / Ru. *cévka*, perhaps OCS *laskrōdb* suggest that the neutralization of **ĥ* and **k* after **s* must have been a living phonological rule of the language until relatively recently. On the other hand, it is possible that it was a sound change shared with in Indo-Iranian, where a similar neutralization took place.

³⁸ Cf. Endzelin (1923, 276f.).

³⁹ See the references given by Hajnal (2004, 139⁷). **-so-* → **-sio-* (B *-ṣṣe*, A *-ṣi*) is paralleled by **-no-* → **-nio-* (B *-ññe*, A *-ñi*), **-to-* → **-tio-* (B *-tstse*, A *-ts*).

IDE. *sĕ BALTŲ IR SLAVŲ KALBOSE

Santrauka

Iš ide. *sĕ dėsningai atsirado bl.-sl. *sk (lie. *sk*, sl. **sk*). Pavyzdžiai, kurie galėtų rodyti kitokius rezultatus (ide. *sĕ > 1. lie. š, sl. s; 2. lie. š*k*, sl. *sk*; 3. bl.(-sl.) *st*), yra etimologiškai abejotini arba gali būti aiškinami kitaip. Ide. *sĕ ir *sk neutralizacija bl.-sl. prokalbėje turbūt yra bendra izoglosa su indų-iranėnų kalbomis. Ši fonologinė taisyklė turėjo gyvuoti tose kalbose pakankamai ilgai.

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