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SLAVIC *edīn- 'ONE' AND WINTER'S LAW

Abstract. Three approaches to the etymology of Slavic $*ed\tilde{n}$ - are developed under two complementary assumptions about the age of the forms reconstructed with short second syllable. These three approaches are tested to determine which best yields the spread of attested accentual and other forms listed in representative sources. Derivations containing the PIE neuter deictic $*h_1ed$ as first component are found to be the most fruitful if it is assumed that anlaut laryngeals remained in Slavic until the completion of both Winter's law and the subsequent loss by dissimilation of one or more laryngeal reflexes, including the laryngeal component of PIE *d, in this compound word, all these reflexes having merged by this time in some kind of glottal constriction. Comments are also offered on the etymologies of Slavic *ed(v)va and Lith. $v\delta s$.

1.

While it is true that no conclusions regarding the validity or otherwise of Winter's law can be based on Slavic **edĭn*- 'one' in view of the obscurity of its first component (Kortlandt 2007a: 3; Derksen 2002: 12; 2008: 139), there surely can be no objection to examining a variety of etymological possibilities for this lexeme in order to assess their compliance or otherwise with the said law.

Rivalling in simplicity Derksen's assertion regarding obscurity is the argument from relative chronology: viz. Winter's law is of (late) Balto-Slavic date whereas $*ed\bar{n}$ - is purely Slavic and, by common consent, a compound, therefore nothing prevents this compound from having been formed within Slavic after Winter's law had ceased to operate. Even so, the first element of the compound, if old, might also be required to have escaped Winter's law unless it can be shown to be of alien origin. On the other hand, nothing should prevent the compound from having been formed in (some of) the dialects ancestral to Slavic during the Balto-Slavic period prior to Winter's law, provided a solution to the Winter's law question can be found. For the likelihood of such an item surviving only in the Slavic dialects we can compare apparently inherited Slavic items lacking a Baltic cognate such as *slbza 'teardrop' and *merz-/morz- 'freeze, frost'. Consequently no fixed assumption is made here regarding the date of formation of the compound. Instead solutions are sought in which the elements or components of the compound are inherited.

2.

Dealing first with the second component, we observe that the data seem to be derived from two distinct paradigms – one with PSI. *i in the second syllable, the other with PSI. *b, thus (based on Trubačov 1979: 9f. and Derksen 2008: 138f. with some help from Pleteršnik 1894-1895, 1: 192):

Paradigm A: OCS *edinb* 'one; sole, only'; Bulg. *edin* 'one', dial. *idin*, *bdin*, *jedin*; SCr. *jèdīnī*, *jëdīn*, Sln. *(j)edin*, Cz., Slk. *jediný*, OPo. *jedziny*, Po. *jedyny* 'sole, only'; OPo., USb. *jedyn* 'one', Russ. *odin*, subst. *odiná* 'solitary habitation'; dial. *edín*, *edína* 'one', Uk. *odýn*, Belor. *adzín*. Most of these agree with the acute reflected in Derksen's reconstruction **edinb*,¹ the only exceptions being Russ. *odiná* and SCr. *jèdīn*, which seem to point to the existence of a mobile paradigm in which the acute would be lacking, a conclusion that is not contradicted by the Czech evidence (see Kortlandt's Slavic chronology [KSC]² 7.13). Indeed only Sln. *(j)edín*, assuming this form is representative of the whole paradigm,³ provides conclusive evidence for acute in this syllable, the long vowel in the SerboCroat forms being against.

Paradigm B: OCS едьпъ 'one; sole, only'; Bulg. edná, ednó 'one', dial. ъппъ́, edén, edъ́n, Mac. eden, edna, edno, SCr. jèdan, -dna, -dno, dial. jền, ềna, apparently older jềdna, Čak. (Vrg.) jedẫn, jednä, jednö, (Orb.) jedãn, jenä, jenö, Sln. édən (èn in noun phrase), éna, éno (archaic edna, edno), jédən, -dna, Cz. jeden, -dna, -dno, jen, jenom 'only', Slk. jeden, -dna, -dno 'one', USb. jeden,

¹ The acute root vowel of Sl. **inъ* was overlooked by Kortlandt in his list (1975: 52-71) of laryngealized roots in Slavic but not by Derksen (2003: 103), who reconstructs **jìnъ* with the same accentuation as **jìva*, **jìstъ* and **jìskra*, all of which do figure in Kortlandt's list; cf. Derksen 2008: s.vv. **jiъnъ*, **jiъva*, **jistъ* and **jiskra*, and even **jiьlъ* though this is listed thus, i.e. without its short rising tone, even though the BSl. protoform is recorded thus: **i?l-*, i.e. as laryngealized.

² This is presented entire or in part in a number of publications, notably entire in 1994 and 2002; subsequently Kortlandt has himself challenged aspects of stages 3.1-3.4 of the chronology (2006) but clearly regards them as still valid (2008a: 1f.) even if not required to the same universal extent (2009: 14).

³ Doubts on this score need not be taken seriously: Pleteršnik's accenting of only the endingless form in his dictionary no doubt indicates that the other forms cited have the same accentuation; if the nom. sg. m. alone had this accentuation, it could have been acquired by retraction of stress from the final jer in a mobile paradigm at KSC 8.2. Oddly enough, though, the Academy's *Slovar slovenskega knjižnega jezika* (1980-1991) indicates that this syllable is pronounced by tone speakers with circumflex/ falling tone in all forms.

LSb. *jaden*, *jadna*, *jana*, *jadno*, *jano*; *jadny* 'only'; Plb. *jadån* 'one', Po. *jeden*, *-dna*, *-dno*, older *jany*, dial. *jaden*, Slnc. *jãděn*, Russ. *odná*, *odnó*, dial. *édna*, *édno*, *édnyj*, Uk. *odná*, *odnó*, Belor. gen. sg. m./n. *adnahó*, most of which seem to agree with the usual (including Derksen's) reconstruction **edьnъ* with all the forms pointing to final stress, especially the neo-acute in Čak. *jedẫn*, *jedãn* but excepting SCr. dial./obsol. *jền*, *ềna*, *jềdna*.

The Uk. forms *odná*, *odnó* require discussion. If the jer reconstructed in the protoform is correct, one might expect either ***vidná*, ***vidnó* or, if Shevelov's (1964: 423) rule about inhibition of the ESI. change **e*- > *o*- when the following syllable contains a jer is correct, possibly ***jidná*, ***jidnó*. The first hypothetical alternative is supported by Uk. *viľxá* 'alder', Russ. *oľxá* beside Slk. *jelša*, Bulg. *elxá*, though doubts are raised by Po. *olcha*, Cz. *olša*, SCr. *jóha* (ibid.), suggesting PSI. variants **e/olьxa*, cf. Uk. *viknó* 'window', Russ., Bulg. *oknó* etc., PSI. **okъno*. The second is supported by Uk. *již, jižák* 'hedgehog', Russ. *ëž* etc. (ibid. and Vasmer/Trubačov 1986-1987: s.v.), though this apparently solitary example is contradicted by Uk. *jorž* 'ruff (a fish etc.)', Russ. *ërš* and Uk. *jesť* 'is', Russ. *esť* (Shevelov 1964: 423; Vasmer/Trubačov 1986-1987: s.vv.). The question remains somewhat unclear, given the paucity of examples and their heavy reliance on plant and animal names. Nevertheless it remains of relevance to doubts about the validity of the jer reconstruction raised by Comrie as follows.

Comrie (1992: 726f.) points out that the OCS forms based on edbn- are essentially confined to the Codex Suprasliensis and the actual spelling throughout OCS is "almost never" with b (in Suprasliensis, in fact, never – judging by the catalogue of forms given by Meyer 1935: 293f.) but instead with zero or apostrophe. Comrie concludes that instead of reconstructing a PSI, paradigm with b, it may be preferable to suppose that the inherited vowel i was lost during the historical period with various fill vowels being inserted as appropriate in the various languages. Essentially the same view was expressed somewhat earlier by Brückner (1957: 204) who proposed, no doubt chiefly on the basis of the usage in Suprasliensis, an 11th century loss of *i* in quadrisyllabic forms (*edino*go etc.). Derksen (2008: 139) may be on the same track with his claim that "[i]n view of Ru. odín, Gsg. odnogó, etc., the form *edbnb [sic, sc. *edbnb - RW] must be due to analogy", though Derksen's ensuing discussion seems to suggest that the analogy resulted in the substitution of a tense *b for *i, which prompts the question: Analogy with what? If indeed it is the desinential, including wordfinal, stress (e.g. Russ. gen.sg. m./n. odnogó) of the alleged *edun- forms that is held to be due to analogy with that of other pronominal paradigms (e.g. Russ. gen. sg. m./n. togó 'that') and the loss of the *i is essentially due to allegro,⁴

⁴ The possibilities of allegro with this numeral are amply demonstrated by the several forms lacking *-d-* cited in paradigm B above.

possibly weakly supported by the stem alternation of the 'all' word (e.g. Russ. nom. sg. m. *veś*, f. *vsja*) vel sim., then the whole development becomes much more comprehensible – including the preference of various scribes, including the principal scribe of Suprasliensis, to replace with anything but a counter-traditional $\langle \mathbf{b} \rangle$ a written $\langle \mathbf{i} \rangle$ that was no longer pronounced.

If this view is accepted, then we can ignore, at least for the moment (but see § 4 below), the forms not supporting acute on the second component and take as our starting point for this component *-HiHno-, the zero grade, as seems now to be generally accepted, of PIE *HoiH(n)- 'one'.⁵ The original place of the stress or accent with respect to this *-HiHno- can be on either of its two syllables, but if it was not originally on the *-HiH- syllable, it will finish up there thanks to Hirt's law. If the stress was substantially elsewhere in the compound, the laryngeals of the *-HiH- syllable would eventually be lost without resulting in either acuting or lengthening of the vowel.

3.

The obscurity of Derksen's (and Hamp's 1992: 903) first component $*h_1ed^h$ - can now be dispelled in at least three ways without (or with little) further ado, as follows.

3.1. Trubačov's (1979: 12) semantic conjecture for the first component of **edĭn*-, viz. 'kak raz ..., tol'ko ...' ('precisely, only'), is perfectly acceptable and is in fact echoed by others including Comrie's (1992: 726) 'only'. It also recalls

⁵ So reconstructed by de Vaan (2008: s.v. ūnus) to account for the Balto-Slavic data, despite the seeming difficulty of obtaining information on the fate of ViHC (no mention in Beekes 1969: 186-202 nor in Beekes 1988): presumably this sequence does not parallel the vocalization of the the laryngeal in VuHC as in Gk. $\kappa\rho\epsilon\alpha\varsigma$ 'meat' < *k1reuh2s (Beekes 1969: 201; 2010: s.v.). Older scholars, such as Machek (1957: s.vv. *jeden*, *jiný*) and Hamp (1992: 903), have proposed **oino*- as the protoform, but PSI. *i < PIE *oi can only be demonstrated for final syllables closed by *-s (e.g. KSC 5.9). Others, such as Comrie (1992: 726) and Trubačov (1979: 12; 1981: 234), appear to do better with *-eino-, but Smoczyński (2007: s.v. vienas) points out that there is no extra-Slavic support for a protoform *-ei-no- 'one' and proposes that *-*ih*₁-*no*-, metathetic to *-*h*₁*i*-*no*-, is sufficient to account for the Slavic acute, apparently forgetting that with no demonstrable e-grade there is no support specifically for h_1 ; nor is the metathesis a particularly happy idea (see especially Derksen 2003: 103). Trubačov provides the variant *-*ēino*- to take care of the acute in Sl. *inb 'one, another', but it is abundantly clear now from a number of publications by Kortlandt (e.g. 1977: 310; 1988a: 387; 2004: 1; 2007 [2006]: 3; 2007a: 1) that it is not a long vowel that results in the Balto-Slavic acute but the presence of a PIE laryngeal or its Winter's law analogue in the protoform.

one of Mayrhofer's (EWA 1: s.v.) glosses, viz. 'gerade', for Ved. $\dot{a}dh\bar{a}$, which is said to contain the PIE pronominal element $*h_Ie$ - (ibid.). The optional short final vowel of the Vedic item can hardly correspond to other than PIE *e. Indeed it seems likely that the second component of the Vedic item represents the local suffix $*-d^he$ 'where?', which Schwyzer (1939: 627) suggests may also have signified 'whence?' as found in Lat. *unde* 'whence; from whom', *inde* 'from there; from then; after that, then' ($\dot{a}dh\bar{a}$, can also be glossed 'then') and ultimately in Gk. $\pi \dot{o}\theta \varepsilon v$ 'whence?' etc.,⁶ the probable semantic development of particular interest to us being 'origin' \rightarrow 'separation' \rightarrow 'delimitation', i.e. the meaning of \dot{a} -dh \bar{a} that is of interest to us here = *'this by itself' \rightarrow 'precisely this' \rightarrow 'precisely'.

It seems then that nothing stands in the way of using this Vedic item in proposing as protoform for our Slavic item $*h_1ed^he$ -HiHno-⁷ *'only/precisely one' or, more directly, *'this one here', which, whenever it was formed, could not reflect in its first syllable either acuting or lengthening by Winter's law.

As indicated above, the stress of the proposed compound cannot be on the first syllable, as the accent of Ved. $\dot{a}dh\ddot{a}$, and Gk. $\pi \dot{o}\theta \epsilon v^8$ might suggest, since the two laryngeals of the second component would have been lost in the postposttonic syllable in the precursor to Meillet's law (KSC 5.3), leaving no chance for the development of the acute in Derksen's PSI. **edin-*; instead, the stress would eventually have been transferred to the reflex of a diphthong in the second syllable by Dybo's law (KSC 8.7) where it would have remained, yielding long circumflex *i* except in **edînъ* itself which would have had the stress retracted to the initial syllable with shortening of the long vowel by Stang's law (KSC 9.3). Had the stress been on the second syllable, the intervocalic laryngeal would no doubt have disappeared by the time of Meillet's law leaving a stressed diphthong immediately followed by the other laryngeal, which would therefore have survived the said law and gone on to yield the required acute. But the stress may equally have been originally on either of the two remaining syllables.

This is thus our first solution to the Winter's law problem of PSI. **edīn*-based on a protoform with originally fixed stress.

⁶ Rix (1976: 189) proposes, somewhat improbably, that the Latin forms contain a metathesized version of PIE $*-d^h en$.

⁷ Machek (1957: 173) suggests a somewhat similar protoform, viz. **ede inъ*, but this is not the same as our protoform since Machek makes no attempt to account for the precise shape of his first component, merely referring his *ede* to Lat. *-dam/-dem* both of which are believed, however, to contain PIE **d* (de Vaan 2008: s.vv.).

⁸ The accent that is always marked in the citation form of the indefinite $\pi o \theta \dot{\epsilon} v$ 'from somewhere or other' can be ignored: the form is a clitic (e.g. Iliad 9:380) and in actual usage can only bear an accent, if at all, under the influence of other clitics.

3.2. The reconstruction of the first component of Slavic * $ed\bar{i}n$ - that is relied on by detractors of Winter's law is the PIE deictic * h_1e - plus the neuter suffix usually reconstructed *-d, i.e. * h_1ed .

Semantically this ties in well with the meaning of the second component in Slavic, viz. 'other', which seems to have grown out of a usage still preserved in East Slavic 'one/some ... one/some/another/others', i.e. 'anyone', e.g. Russ. *inomu čeloveku žarko, a inomu xolodno* = Belor. *inšamu čalaveku horača, a inšamu xoladna* 'one (person) finds it hot, one/another finds it cold' (Atraxovič 1982, 1: 323), Russ. *inoj raz* = *inogda* = Belor. *inšy raz* (ibid.) = Ukr. *inšyj raz* = *inkoly* (Olijnyk/Sydorenko 1978: 287) = 'sometimes'. Hence the compound would have specified 'this one', a precise number, rather than the indefinite 'any (one), some other (one)' that the zero grade of the plain numeral had begun to represent in Slavic.

The explanation of how this element $*h_1ed$ escapes the effects of Winter's law is made more secure if word initial laryngeals before vowels persist in prehistoric Slavic until after Winter's law has been completed. I see no problem in this. KSC makes no big issue of the question of the loss of PIE initial laryngeals. They last figure in reconstructions in KSC 4.1 (Hirt's law); an opportunity for writing one is not taken up in 4.3 ($*ng^wnis$). On the other hand there seems to be no case of compensatory lengthening by an anlaut laryngeal lost in the lead-up to Meillet's law (KSC 5.3); they must therefore have been lost no later than that stage. I see no reason why their loss should not be assigned to KSC 5.1, where it would be complemented by both the loss of final resonants after long vowels and the loss of the laryngeal in the acc. sg. ending of *a*-stems.

With this in mind we set up an original neuter phrase $*h_1ed$ HiHnod *'this one', in which the first element becomes fused with the second and ceases to inflect for gender, number, etc., yielding, certainly after Hirt's law, $*h_1edHiHno$.

For the fixed form of the first component one can compare the genderless Russ. *dvenadcat'* 'twelve', in which the first element *dve*- was originally neut. (and/or fem.) dual. Similar too is the fixed initial syllable $\delta\pi$ - of Hom. m. $\delta\pi$ - $\pi\delta\tau\epsilon\rho\rho\varsigma$, f. $\delta\pi$ - $\pi\sigma\tau\epsilon\rho\eta$ 'which(ever) of (the) two', and similar relatives, which contrasts with the variable first syllables of $\delta\sigma$ - $\tau\iota\varsigma$ 'he who' and $\delta\tau$ - $\tau\iota$ 'that which', though sharing its origin with the latter, and was no doubt adopted from adverbial expressions like Hom. $\delta\pi$ - $\pi\omega\varsigma$ 'however' where, modernizing Chantraine (1972: 311) somewhat (see Beekes 2010: s.v. $\delta\varsigma$), it derives by assimilation from PIE neut. * h_1iod .

According to Kortlandt, during KSC 4.3 (Winter's law) the laryngeal element of the glottalic stops merged with "the reflex of the PIE. laryngeals", yielding for our protoform, using Kortlandt's notation, **HeHdHiHno-*, in which it is clear that the close proximity of four identical laryngeal reflexes will be highly conducive to the dissimilative loss of one or more of them. I propose that

by KSC 5.1 at the latest the first of the medial laryngeal reflexes is lost and possibly one of the other two as well, yielding at least *(H)edHiHno- and perhaps even *(H)ediHno- or *(H)edHino-, thus circumventing Winter's law while retaining at least one other medial laryngeal to secure the required acute in the second syllable.

This then is our second solution.

3.3. It may, however, be argued that it is unlikely that the Slavic reflex of the PIE final stop was identical with PIE *d found in other positions. It may instead have been identical with PIE *t and become voiced to d posterior to the operation of Winter's law by the initial $*h_3$ of the second component that we are enabled to reconstruct thanks to the observed lack of *e*-grade forms among the reflexes of PIE *H(o)iH(-n)- 'one' (fn. 5 above). This proposition raises a number of questions that may be answered as follows.

3.3.1. That the consonant in question may have been originally identical with PIE *t in early Balto-Slavic emerges from the following considerations.

According to Leumann (1977: 229) the difference between PIE final *-*t* and *-*d* can only be deduced on the basis of morphological considerations, not from the reflexes in the individual daughter languages. Thus -*d* in OLat. *feced* 'made' is said to represent *-*t* on the basis that the related primary ending *-*ti*, in which the dental is no longer final, has **t*. The nom./acc. sg. neuter pronominal suffix is said to reflect *-*d* on the basis of equating Lat. neut. *idem* 'the same' with Vedic neut. *idám* 'this here', though it is noteworthy that this equation is not made by Mayrhofer (EWA 1: s.v. *ay*-), who considers -*ám* an Indo-Iranian development, nor by de Vaan (2008: s.v. *īdem*), so the possibility remains that the joining of *id* with -*em*/-*am* was done in the daughter languages independently. Indeed it is possible that Lat. *idem* is due to a conflation of *id* with Lat. *item* 'in the same way' and even possible that the medial consonant of Lat. *ita*, *item*, Ved. *iti* 'thus', Av. *iþā* 'id.' (de Vaan 2008: s.v. *ita*) preserves the original **t* > final *-*d*.

The situation in Hittite is somewhat obscure. Although Kloekhorst (2008: 24) demonstrates that word-final fortis and lenis stops are distinguished in Hittite, the demonstration seems to hinge entirely on final labiovelars written fortis *-kku* : lenis *-ku*; further, the fortis stops in Kloekhorst's two examples for fortis final consonants are /tak^w/ takku 'if, when' and /nek^w/ nekku 'not?', both of which are reconstructed with PIE *- k_2e^9 as their second component, i.e. the

⁹ In my bitectal PIE, g_2 , k_2 etc. are backvelars developing into labiovelars and plain velars in centum PIE and plain velars in satem PIE, while g_1 , k_1 etc. are prevelars developing into palatovelars and pure velars in satem languages and plain velars in centum languages. Labialization of backvelars was positionally determined in PIE and so not phonemic; it became phonemic only in centum languages (Woodhouse

consonant is final in Hittite but not in PIE. The non-geminate writing of PIE word-final dentals we observe in both 3. sg. act. pret. forms like OHitt. \dot{u} - μ a-te-et 'brought' (Kloekhorst 2008: 935) and nom./acc. sg. neut. pronouns like OHitt. a-pa-a-at seems to suggest a lenis in either case. The latter turns up with geminated (ex)final in OHitt. when the particles -a 'and' and -an 'in(to)' are added, thus a-pa-at-ta, a-pa-at-ta-an (HW₂ 1: 132) but this fortition appears to be due to clustering with the initial laryngeals proper to the protoforms of these particles (Kloekhorst 2008: 66, 173, 378) and so reveals nothing about the original quality of the dental.

More instructive is the ablative termination, which in Hittite $-(\tilde{a})z$ clearly derives ultimately from $*-(\delta)ti$. Since the final vowel has evidently been lost in Hittite itself, no doubt in accordance with a rule that could apparently take effect at varying periods – and the lost vowel could also be restored in some cases (Kloekhorst 2008: 68, 91 and fn. 193) – the fact that the only cognates Kloekhorst (2008: 232) finds worth mentioning are Gk. $\pi\rho\delta\tau i$, Cret. $\pi\rho\tau i$, Ved. *práti* 'towards', i.e. one petrified preposition or prefix, does not seem to me to guarantee that forms of the suffix lacking the final vowel could not occur in non-Anatolian Indo-European as well. Perhaps this should in fact be added (as number eight) to Kloekhorst's (2008: 7-11) list of seven common innovations of non-Anatolian IE – or again, perhaps not. Be that as it may, according to Leumann (1977: 229) the *-d* of the OLat. ablative may reflect either *-*t* or *-*d*; I believe the Hittite evidence guarantees original *-*t* < earlier *-*t*i.

Although voicing or lenition of PIE word-final consonants in IE languages is widespread, it is by no means universal. Thus while Leumann (1977: 229) finds evidence for neut. suffix *-*d* also in Greek, Vedic and Germanic, and de Vaan (2008: s.v. *is*) adds to this Old Irish and, for the Latin preposition and prefix *ad* (2008: s.v.), expands the list to include Celtic more generally as well as Phrygian, the same de Vaan equates Lithuanian *it* 'just so', with manifestly voiceless final consonant, with Lat. *ita* etc. (2008: s.v.; also see above). Now since the Vedic evidence is somewhat inconclusive, given the possibility for external sandhi rules to have been applied in cases like *idám* < *it* (?) + *am*,¹⁰ it is possible that word-final voicing is a phenomenon more characteristic of centum languages. Thus not only does satem Armenian *es* 'I' (not ***ec*) < PIE **eg*₁- point to a devoiced word-final consonant, so also does Baltic once again,

1998; 2005). Nor was h_3 labialized in PIE: the difference between h_2 and h_3 was analogous to that between the voiceless and voiced variants of the Sanskrit laryngeal, pharyngeal or velar fricative (known in Sanskrit grammar as *visarga*) when < *-*s* and when following Skt. *a*, the voiceless segment yielding [h], the voiced one combining with the previous *a* to form the so-called diphthong *o*.

¹⁰ See Woodhouse 2011: 172 f. for a collection of Vedic material in which external sandhi replaces expected internal.

certainly in Lith. *àš* 'I' and Latv. *es* 'I', and there is no reason to suppose anything different for OPruss. *as/es* 'I' as well (Schmalstieg 1974: 137).

Another Baltic example, one in which Slavic is also implicated, is the prefix Lith., Latv. *at*-, 'to, again; off, from, back' (e.g. Lith. *atėjimas* 'coming, arrival' : *atėmimas* 'taking away, deprivation'; Latv. *atbraukt* 'arrive' : *atcirst* 'cut off'),¹¹ which covers much of the semantic range of both OPruss. *at-/et*-(see Toporov 1979: 100 f.) and Slavic (OCS) $ot(-/b)^{12}$ 'off, from', on the one hand, and Lat. *ad*(-) 'to, up to, into', on the other. Consequently it seems probable that Lat. *ad* and centum cognates are related to Balto-Slavic **at* (pace Smoczyński 2007: s.v. *at*-) as well as to Lat. *at*, which Smoczyński does mention (ibid.) and which must reflect **ati*, as many, including de Vaan (2008: s.v.), observe; while Lat. *atque* is clearly formed from Lat. *at*, not *ad*.

¹¹ These Baltic words are taken from unaccented sources, viz. B. Piesarskas and B. Svecevičius, 1979, *Lietuvių-anglų kalbų žodynas*, Vilnius, and E. Turkina, 1962, *Latviešu-anglų vārdnīca*, Riga.

Modern Polish, Czech, Slovak, Slovene, SerboCroat, Macedonian, Belorussian and Ukrainian have all developed forms with -d, apparently under the influence of pod 'below', nad 'above', *perd 'before' (Machek 1957: s.v. od). Earlier stages of these languages had ot(-): e.g. for Polish ot[mo]cy 'from the [po]wer (of)' (Sermon for St. Michael's Day in the extant mid-14th century copy of what is claimed to be the "znacznie starszy" (considerably older) original of the Kazania świętokrzyskie), Otbod 'leave, abandon' (Sermon for St. Catherine's Day in the same monument, see Vrtel-Wierczyński 1963: 8, 10, 11); Czech ot duchu fwateho 'from the holy spirit', ot gich hrziechow 'from their sins' (Bible drážďanská, late 14th century, Matthew 1:20, 21, see Kyas 1981: 7, 40); SerboCroat otveća 'answered', ot mene 'from/by me' (Legend about St. John Chrysostom, Čakavian c. 1600, see Butler 1980: 141, 146). For Slovene, Zor et al. (1993: 142 f.) catalogue the mixture of ot(-) and od(-)in the Freising texts (FT): FT I has (1. 10) otpuztic 'absolution', (22) od zih ... greh i od ineh mnozeh 'from these ... sins and from many others', (28) otel '(might) deliver', (ibid.) otmi me 'deliver me'; FT II has (10) od szlauui 'from the glory', (95) od [j]ego 'from him', (96) (ze) oteti 'deliver (oneself/ourselves)'; FT III has (23f.) odpuzzic of boga 'absolution from God', (39) od togo dine 'from that day', (70) ot zlodeine oblazti 'from the devil's power', (72) ot uzega zla 'from all evil' (ot(-) appears more often before voiced obstruents, od(-) before voiceless); for Macedonian we may refer to the solidly ot(-) situation in OCS and for Belorussian and Ukrainian to the same in Old Russian. Original ot(-) seems not to be demonstrable with total security for Slovak: the earliest texts with any sort of Slovak character (in reality Old Czech with Slovak elements according to Minárik 1985: 46) available to me (in Mišianik 1964: 79-81) are the two rhymed religious pieces -a call to piety and a prayer - penned by two hands on a single page dated to the 14th century; the first has the phrase (in edited transcription) a od neho sě nikdy neodlúčili 'and (might) never be separated from him', the second has *odpudil* '(might) reject', each d being clearly visible in the photograph supplied. On the other hand, the name otroc (modern Otrokovce) in the 1156 Communities paying tithes to the Ostrihom Chapter (see Stanislav 1957: 116f.) may supply the requisite evidence if, as is likely, it represents ot+rok-.

The voiced finals of Lith. dial. $i\check{z}$ 'out of, from', Latv. iz, OCS, Russ. iz, beside standard Lith. $i\check{s}^{13}$ are probably due to secondary voicing, as Derksen (2008: 217) suggests. The process may well have involved analogy, a likely model being the originally semantically similar Latv., OCS, Russ. etc. *bez* 'without' for which a final vowel is usually reconstructed (e.g. PSI. **bez*(\flat), Karulis 1992 [2001]: 123; Derksen 2008: 38), and which very likely represents a less severe allegro treatment (than Lith. *bè*, OPruss. *bhe*) of an originally precise phonological equivalent of Ved. *bahís* '(to/from) outside, beside', the backed final vowel in the PSI. form being probably normal when there is no paradigmatic support for the front jer (cf. Albert Speirs, pers. comm., on OCS 3. pers. pres. terminations in *-tъ* beside ORuss. in *-tь*, Uk. *-t'*). With **bez*(\flat) may also be compared PSI. variants **čersъ* : **čerzъ* (Derksen 2008: 85), the first of which no doubt reflects an erstwhile variant with final consonant.

3.3.2. The proposed voicing of the medial dental by h_3 in Slavic can be supported by my proposed derivation of Russ. *koróbiť* 'warp' – which several scholars regard as inherited (see, e.g., Vasmer/Trubačov 1986-1987: s.v.; Wal-de/Hofmann 1965: 272) – from PSI. **kor2b-* < PIE **k*₂*orph*₃- (root based on Lipp's **k*^{*u*}*erpH*- 'sich wenden', LIV₂: 392), though probably not as the causative **k*₂*orph*₃-*éié*-,¹⁴ as I originally proposed (Woodhouse 2008: 21f.). The causative is unlikely because the suffix stress would almost certainly have induced mobility in the paradigm¹⁵ so that the acute that might have been generated on the diphthong by Winter's law in the first syllable of the protoform would have

¹³ If < PIE $*h_1eg_1^h(s)$ (e.g. Derksen 2008: 217; de Vaan 2008: s.v. *ex*), the BSI. *i-vocalism may be due to allegro, helped by the preceding word boundary and the following palatal consonant and perhaps even the final *-s (cf. the raising effected in somewhat similar circumstances by *-s in KSC 5.9).

¹⁴ The double accentuation of the suffix is intended to indicate its variable accentuation in the Vedic paradigm: the finite forms accent the first syllable (-*áya*-), the infinitives either the first or the second, thus *v̄r-áya-dhyai* 'to set in motion' but *tams-ayádhyai* 'id.', other nominal forms accent the second syllable of the suffix or a still later syllable in the wordform with other peculiarities, e.g. present passive participle *bhāj-yá-māna-* 'caused to share', gerundive *tray-ay-áyya-* 'to be guarded', gerund *kalpay-i-tvá* 'having arranged', perfect passive participle *ghar-i-tá-* 'smeared' (Macdonell 1910 [1968]: 393-398; 1916 [1966]: 195-197).

¹⁵ That verbs of this type could early acquire mobility is evident from medieval examples of Slavic causative/iteratives with stress retracted on to prefixes and the like by the recurrence of Pedersen's law at KSC 6.10, such as are reported by Dybo (1962: 10, 13), e.g. (all 1. sg.) póložU (Psalter of 1568), póložju 'lay', pógublju 'destroy', rázdražju 'annoy' (and possibly népoščažju 'spare not') (Čudovo New Testament of 1348), oúloučju 'obtain' (and possibly vszveščU 'announce', prójavlju 'reveal') (Konstantin Kostenčski, O pismenex, 15th century MS) (cf. Derksen 2008: s.vv. *ložiti, *gubiti, *drāžiti, *lučiti, *aviti, respectively).

been eliminated by Meillet's law,¹⁶ as in **cĕdìti* 'strain, filter' < PIE *(s)koidand *studiti 'cool (trans.)' < PIE *stoud- (cf. Derksen 2008: s.vv.).¹⁷ It is likely instead that, just as the substantives Russ. borozdá 'furrow', sáxar 'sugar' and moróz 'frost' give rise to denominals preserving the stress place borozdíť 'furrow, leave a wake, traverse', sáxarit' 'put sugar in/on, sweeten' and morózit' 'freeze', so Russ. dial. korób 'belly' (< PSl. *kor?bo- < PIE *k20rph3-0-) - even though the word with this stress has been recorded, according to Filin (1978: 344), in only one small dialect - can be connected with *koróbiť* 'put a belly in/ on something, i.e. let or cause it to become curved, uneven, warped or buckled'.¹⁸ This semantic equation provides, in my view, sufficient justification for the proposed connection. And although Filin's (loc. cit.) example for the word, viz. Xorošo emu, polon korob nabil 'He's fine, he's stuffed his belly full', clearly reflects a more developed meaning such as 'bag', nothing prevents derivation of this from the more primary meaning 'bend, curve, swell' (see, e.g., Kluge/Seebold 1999: 85 on NHG Bauch 'belly, stomach, abdomen, paunch', Russ. púzo 'belly, paunch'; also the connection of Russ. brjúxo 'belly, paunch' with MHG briustern 'swell' by Vasmer/Trubačov 1986-1987: s.v.). The same accentuation is reflected in the alleged Russ. dial. form of unknown provenience koróba 'box made of lime bark' recorded by Filin (1978: 344), who was evidently unaware that the same item with the same spelling and with a more detailed version of the same definition appears in the 1870 Belorussian "dialect" dictionary by Nosovič (Nasovič), whence it was no doubt adopted without acknowledgement by Filin's sources ¹⁹

 ¹⁶ A short vowel in this pretonic syllable would have undergone lengthening (KSC 5.3-5.4) followed by timbre change and shortening (KSC 7.13), an example of this being PSI. *sadìti 'plant' < PIE *sod-éié-.

¹⁷ Genuine Slavic iterative/causatives with acute in the first syllable, i.e. accentual paradigm (a), are probably solely due to retraction of the stress by Hirt's law, e.g. (PSI. infinitives as per Derksen 2008: s.vv.) *bàviti 'linger' < *b^hoHu-éié-, *làziti 'crawl, creep' < *loh₁g₁^h-éié-, *plàviti 'melt' < *pleh₃u-éié-, stàviti 'put in a standing position' < *stoh₂u-éié- – the origin of the *u-suffix in this last example is controversial: perhaps due to misanalysis of a *u*-present; I confess to being puzzled by Derksen's (2008: 466) apparent equation of PSI. causative stàviti with Lith. stověti 'stand' and Latv. stãvêt 'id.' which seem to me to be essive/fientive.

¹⁸ Other similar PSI. verbs retaining acute apparently due to Winter's law must similarly represent late derivatives from root-stressed forms, such as *gràbiti* 'grab', **nù/òditi* 'compel' since analogical retraction of stress in the manner of Russ. past f. *éla* 'ate' and *séla* 'sat' at KSC 4.4 seems hardly possible in such polysyllabic items (it is surely quite impossible for a root of the shape **kor?b*- in which the laryngeal is not adjacent to the vowel).

¹⁹ The commoner Russ. dial. and standard Russ. kórob 'basket (including various basket like structures for catching fish, mounting on sleds, etc.)', agrees with the accentuation and semantics of Lith. karbas 'id.', and this fact strongly supports the notion of borrowing via OHG corb 'id.' from Lat. corbis 'id.' all representing ultimately

The specification of $k_2 \circ ph_3$ -o- as the protoform in which the voicing took place has the further advantage of aligning the voicing condition with that found also in Greek and Vedic, viz. in postaccentual segments (Woodhouse 2008: 22; 2011: 156 f., 179), though this, as opposed to mediality, may not be a binding condition in Slavic.

3.3.3. It is of course necessary for our argument that when the relatively late voicing by h_3 occurred in our newly formed compound $*h_1et-h_3iHno-$ it yielded a segment that merged with the reflex of the PIE asper, not the preglot-talized stop. And while in principle this could have happened at any time after the period of voicing by h_3 in inherited material had ceased, the only time when it can be guaranteed to happen is posterior to the splitting of the preglottalized stops by Winter's law into a glottal portion and a buccal portion capable of merging with the reflex of the asper. The assumption of an earlier date than this would force us to assume a change in the behaviour of h_3 , though not in its ability to cause voicing, for which change there would be, as far as I am aware, no other evidence. We must therefore examine the possibilities based on this relatively late date for the voicing, an assumption which in turn implies the same relatively late date for the formation of the compound.

First, the specification of the final dental stop in prehistoric Balto-Slavic as not **d* but **t* means that there is no requirement for this final *-*t* to be lost as early as KSC 3.7 or even before the onset of Winter's law at KSC 4.3. It must, however, be lost prior to the retraction of stress from final open syllables at KSC 4.4; otherwise, as Kortlandt indicates there, Russ. pret. n. *dálo* 'gave' would have had final stress. Under this hypothesis, the compound * h_1et-h_3iHno must therefore have been formed after KSC 4.3 and before KSC 4.4. We therefore need to specify a stage 4.3a between these two stages in which the compound was formed, its medial stop becoming immediately voiced, and a further stage 4.3b in which final *-*t* was lost.

Next, we must consider whether voicing by h_3 would have been possible at so late a stage, given that, as indicated above (§ 3.2), at KSC 4.3 Kortlandt already writes of "the reflex of the PIE. laryngeals" as if there was only one. On the other hand at KSC 4.4 Kortlandt writes of the "full grade" replacing earlier zero grade in Russ. pret. f. *dalá*, n. *dálo* 'gave' (**deh*₃*l*-) "at a stage between 4.1 and 4.4", which implies that h_3 at the stage in question had not yet merged with the other laryngeals as a mere glottal stop or glottal constriction. Nor is there any need for complete merger of the laryngeals at the time of Winter's law (KSC 4.3), though it is perhaps that desirable that at least one laryngeal – say h_1 ,

the same root with here the developed meaning 'turn, twist, plait, weave', the borrowed form(s) in Slavic having largely replaced the inherited forms, as readily emerges from contemplation of the entries *kórob* and *koróbit*' in Vasmer/Trubačov 1986-1987.

which Kortlandt (2007b), correctly in my view, notates as glottal stop – should present a reflex sufficiently similar to the laryngeal feature of the PIE glottalized stops for this feature to be preserved through merger with the said laryngeal. A parallel is provided by Hirt's law (KSC 4.1) itself, which signals a common property of the PIE laryngeals long before these phonemes can be considered to have actually merged – as is clear from what has just been said about *dalá*, *dálo* and as is also indicated in the notation of the phonemes at KSC 4.1.²⁰ Nothing therefore would seem to prevent h_3 from retaining enough of its individual character to effect voicing at our new stage 4.3a, when of course, with no longer any glottalized stops in the language, the voicing process would be most unlikely to create a new glottalized stop in a solitary lexeme. Complete merger of the laryngeals would follow somewhat later, either in time for Meillet's law (KSC 5.3-5.4) or at least before the monophthongization of diphthongs at KSC 6.5.

This then completes out third solution for the avoidance of Winter's law acuting/lengthening in the first syllable of PS1. * $ed\bar{i}n$ - based on the assumption of fixed stress on the acute second syllable later disturbed by analogy, as required by Derksen's protoform *edinb and as suggested by the (almost) constant writing of the shortened form of the word in OCS texts with anything but b in this same second syllable.

4.

Contrary to the above, however, it is possible that the meagre evidence for the variant ed'n- in Suprasliensis and some other OCS texts, together with Uk. $odn\dot{a}$ etc. (see § 2 above), represents a late minority development in Slavic and that the evidence for a mobile paradigm (ibid.) represents a genuine development. It is also worth noting that Derksen (2008: 139) did venture – however briefly and inconclusively – to spill a little ink on the question of a phonetic origin for the forms based on *edbn-. These possibilities therefore also remain to be discussed.

The mobile paradigm suggests an oxytone protoform such as appears to be authorized by the oxytone Greek adjectival variant $\partial i v \partial \varsigma$ 'ace on dice' as opposed to no doubt substantival $\partial i v \eta$ 'id.' (thus Frisk 1960-1973: s.v. $\partial i v \eta$; Beekes

²⁰ Similarly the fact that both h_1 and h_2 are implicated in the aspiration of stops signifies not necessarily that they have merged but that they possess some common features including voicelessness (on h_1 in this role see: Lubotsky 1989: 56f. on PSI. **xoi-ro-*, **xoi-d*^(h)*o-* 'grey'; Beekes 1995: 181 on Ved. gen. sg. *pathás* 'path'); the fact that Kortlandt's notation of the laryngeals vis-à-vis Hirt's law oscillates cuts no ice: it was actually plain H in 1975 (p. 2-4) and again in 2008 (2008a: 2).

2010: s.v. $oiv\eta$)²¹ and perhaps also by the zero grade *n*-less form (Hom.) m. $i\delta\varsigma$ 'one, same', although doubts have been expressed about the originality of this form (see Beekes 2010: s.v. $i\alpha$). Such a reconstruction will also account for the overwhelming evidence for desinential stress in Slavic **edīn*- noted by Comrie (1992: 727).

Some loss of the laryngeals in the second component of our protoform, no doubt by dissimilation, will have to be entertained for this part of the discussion if the ictus is not to be retracted from the desinence to the root syllable by Hirt's law, whereupon the subsequent development would be as already given above.

We now examine the derivation of various protoforms based on this new approach to the second component of our compound coupled with the three origins suggested above for the first component in order to see which, if any, provides superior explanations of the data. If any justification for providing these fulsome derivations is sought, I refer to Kortlandt's recent (2008b: 1) suggestion "that the complexity of Slavic historical accentology is prohibitive for most non-specialists in the field" and note Kortlandt's (2009) ample demonstration of the morass into which even a specialist can sink by ignoring the many finely wrought provisions of KSC. (See postscript.)

4.1. Instead of $*h_1ed^heHiHno-$ we will need to consider $*h_1ed^heiHno-$, which, unlike $*h_1ed^heHino-$, will not undergo stress retraction by Hirt's law because the laryngeal is separated from the vowel *e* by the resonant *i*.

With the coalescence of the reflex of PIE $*d^h$ and the buccal part of PIE *d as PSI. *d being included as Winter's law, significant stages in the derivation are:

KSC	acc. sg. m.	dat. sg. m.	nom. sg. n.	event
3.1	*h1ed ^h eiHnom	*h ₁ ed ^h eiHnosmōi	*h ₁ ed ^h eiHnom	columnar stress
3.3	*h1ed ^h eiHnom		—	barytonesis
3.4		*h1ed ^h eiHnosmōi	_	oxytonesis
3.5		_	*h1ed ^h eiHnod	oxytone neuter
3.6	*h1ed ^h eiHnum		_	raising *-om
3.7		—	*h1ed ^h eiHnoˈ	final *d lost
4.3	*HedeiHnum	*HedeiHnosmō॑i	*HedeiHnoˈ	Winter's law
5.1	*edeiHnum	*edeiHnosmō॑i	*edeiHnoˈ	*H - > 0 (§ 3.2)
5.3		*edeinosmō॑i	*edeino	before Meillet
5.4	*edeinum	—		Meillet's law
5.5	*ėdeinu	—		some *- <i>m</i> lost

²¹ Chantraine (1999: s.v. *oἴvη*), however, suggests that *oἰνός* is a ghost; yet etymologists of Latin tend to cite an oxytone *oἰνή* – thus de Vaan (2008: 642) and Ernout/ Meillet (1951: 1324); Walde/Hofmann (1965, vol. 2), however, have both: *oἰνή* on p. 822 and *oἴvη* on p. 823.

5.11	_	*edeinosmou		*- <i>ōi</i> > *- <i>ōu</i> > *- <i>ou</i>
5.12	_	*edeinasmau	*edeina	$*\breve{a}>*\breve{o}$
6.5	*edēnu	*edēnasmō	*edēna	monophthongs
6.10	*ềdẹnu	*edēnasmó	*edēnà	Pedersen's law
7.9	*ềdīnu	*edīnasmú	*edīnà	raising *ē, *ō
(7.10	*àdīnu	*adīnasmú	*adīnà	ESl. * <i>e</i> - > * <i>a</i> -)
7.13	*ềdīnъ	*edinomú	*edinò	new timbres
	(* <i>ödīnъ</i>	*odinomú	*odinò	in East Slavic)

At this stage, the nom. sg. m. would be *e/odinb > *e/odinb by KSC 8.2, which would be immune from further accent shifts, thus yielding, with the attachment of prothetic *j* as appropriate at KSC 7.1, all the nom. sg. m. forms with long stressed *i* in the second syllable, with the exception of Sln. *(j)edín* if, as is discussed above (§ 2), this represents the only secure evidence for the acute paradigm. The derivation also produces both Russ. *odiná* and, with the same prothetic *j*, SCr. acc. sg. m. *jèdīn*, but yields no end-stressed forms having *b* in the second syllable.

Since the laryngeals were all eliminated from the paradigm by the time of Meillet's law anyway, removing the proposed medial H from the protoform would change nothing. The only way to produce b in the second syllable in this derivation is the ad hoc removal not only of the **e* from the second syllable of the protoform but of both medial laryngeals as well, because without the medial **e* the second laryngeal would trigger Hirt's law, while the first would cause compensatory lengthening of the adjacent vowel when it was eliminated at KSC 5.3-5.4 and this would be shortened to *i* at KSC 7.13 just as in the above derivation.

4.1.1. Let us consider a derivation in which the two elements come together to form a compound at some later stage. This stage could hardly be posterior to the monophthongization of 6.5. To avoid retraction of the stress by Hirt's law we posit **Hino*- as the shape of the free-standing second component. If the compound is formed just before Meillet's law the anlaut laryngeals of both components will have already been lost, yielding the following derivation (in which the assumed first component quasi-PIE * $h_1ed^he > early$ (B)Sl. **ede-* is not shown until the compound comes into being).

KSC	acc. sg. m.	dat. sg. m.	nom. sg. f.	nom. sg. n.	event
3.1	*Hinom	*Hinoˈsmōi	*Hineh2	*Hinom	columnar stress
3.3	*Hinom	—		—	barytonesis
3.4		*Hinosmō̇́i			oxytonesis
3.5		_		*Hinod	oxytone neuter
3.6	*Hinum	—	—	—	raising *-om

3.7	_		_	*Hino	final *d lost
4.4			*HinaH	*Hino	disyll. retract.
5.1	*inum	*inosmō॑i	*inåH	*ino	*H->0
5.2			*ino॑H	_	$*reve{a}>*reve{o}$
5.3	*edeinum	*edeinosmō॑i	*edeino॑H	*edeino	before Meillet
5.5	*edeinu	_		_	some *- <i>m</i> lost
5.11		*edeinosmoʻu		—	*-ōi > *-ōu > *-ou
5.12		*edeinasmau	*edeina॑H	*edeina	$*\breve{o} > *\breve{a}$
6.5	*edē៉nu	*edēnasmō	*edēna?	*edē̇́na	monophthongs
6.10	*èdē़nu	*edēnasmó		*èdē़na	Pedersen's law
7.9	*èdīnu	*edīnasmú	*edīna?	*èdīna	raising * <i>ē</i> , *ō
(7.10	*àdīnu	*adīnasmú	*adīna?	*àdīna	ESl. * <i>e</i> - > * <i>a</i> -)
7.13	*èdīnъ	*edinomú	*edinå	*èdīno	new timbres
	(*òdīnъ	*odinomú	*odinå	*òdīno	in East Slavic)
8.7	*e/odînъ	-		*e/odîno	Dybo's law
9.2		\rightarrow	*e/odinà		loss of acute
9.3	*è/òdinъ	_		_	Stang's law
	(*èdīnъ	_			in Lechitic)

Thanks to the retraction at KSC 4.4, this yields an awkward mixture of accentual paradigms (b) (stress alternating between adjacent syllables, $*\dot{e}/\partial dinb$: *e/odino) and (c) (stress alternating between extreme syllables, $*\dot{e}/\partial dinb$: * $e/odin\dot{a}$). Moreover, SCr. $j\ddot{e}d\bar{i}n$ is incorrectly predicted to have a short vowel in its second syllable.

If, before compounding, the phrasal unit was stressed on either syllable of its first element, then the entire paradigm will retain stress on the corresponding syllable of the compound. This is because if the second syllable was stressed, there would be no retraction in such a fixed stress paradigm at 6.10; and if the first syllable were stressed, the evolution of the stress would be as in stages 7.13-9.3 of the acc. sg. m. shown above.

4.1.2. If the compound was formed after Hirt's law but before Winter's law, i.e. before anlaut laryngeals were lost, we would have:

KSC	acc. sg. m.	dat. sg. m.	nom. sg. n.	event
3.1	*Hinom	*Hinoˈsmōi	*Hinom	columnar stress
3.3	*Hinom	_		barytonesis
3.4		*Hinosmō॑i		oxytonesis
3.5			*Hinoˈd	oxytone neuter
3.6	*Hinum			raising *-om
3.7		_	*Hino	final $*d$ lost
4.2	*Hed ^h eHinum	*Hed ^h eHinosmō॑i	*Hed ^h eHinoˈ	compound formed

4.3	*HedeHinum	*HedeHinosmōi	*HedeHino	Winter's law
5.1	*edeHinum	*edeHinosmō॑i	*edeHino	*H->0
5.3	_	*edeinosmō̇́i	*edeino	before Meillet
5.4	*edeinum	_		Meillet's law
5.5	*edeinu	_		some *- <i>m</i> lost
5.11		*edeinosmou		*- <i>ōi</i> > *- <i>ōu</i> > *- <i>ou</i>
5.12	_	*edeinasmau	*edeina	$*\check{o}>*\check{a}$
6.5	*edē॑nu	*edēnasmō [†]	*edēna	monophthongs
6.10	*èdēnu	*edēnasmó	*edēnà	Pedersen's law
7.9	*èdīnu	*edīnasmú	*edīnà	raising * <i>ē</i> , * <i>ō</i>
(7.10	*àdīnu	*adīnasmú	*adīnà	ESl. * <i>e</i> ->* <i>a</i> -)
7.13	*èdīnъ	*edinomú	*edinò	new timbres
	(*òdīnъ	*odinomú	*odinò	in East Slavic)
8.7	*e/odînъ			Dybo's law
9.3	*è/òdinъ			Stang's law
	(*èdīnъ		8-	in Lechitic)

This gets rid of the neuter forms having accentual paradigm (b) found in the derivation of \S 4.1.1; otherwise it has little to recommend it.

4.1.3. From the above it follows that if the first component of the compound is assumed to be $*h_1ed^he_-$, the compound must be assumed to be old. Even so not a great deal can be explained from it.

4.2. Next we consider the derivation of our second proposed protoform $*h_1ed(\#)HiHno-$ if it is transformed to $*h_1ed(\#)Hino-$ prior to Hirt's law.

4.2.1. First, starting from $*h_1edHino-$ with mild dissimilation following Winter's law we have:

KSC	acc. sg. m.	dat. sg. m./n.	nom. sg. n.	event
3.1	*h1edHinom	*h1edHinosmōi	*h1edHinom	columnar stress
3.3	*h1edHinom		_	barytonesis
3.4		*h1edHinosmō॑i	_	oxytonesis
3.5		—	*h1edHinod	oxytone neuter
3.6	*h1edHinum			raising *-om
3.7			*h1edHino	final *d lost
4.3	*He॑HdHinum	*HeHdHinosmō॑i	*HeHdHino	Winter's law
4.4	*HedHinum	*HedHinosmō॑i	*HedHino॑	dissimilation
5.3		*edīnosmō [†] i	*edīno	before Meillet
5.4	*ėdīnum			Meillet's law
5.5	*ėdīnu	—		some *- <i>m</i> lost
5.11		*edīnosmo ['] u		*-ōi > *-ōu > *-ou

5.12	*ėdīnu	*edīnasmau	*edīna	$*\check{ar{o}}>*\check{ar{a}}$
6.5	_	*edīnasmō	_	monophthongs
6.10	*ềdīnu	*edīnasmó	*edīnà	Pedersen's law
7.9	—	*edīnasmú	—	raising *ē, *ō
(7.10	*àdīnu	*adīnasmú	*adīnà	ESl. * <i>e</i> ->* <i>a</i> -)
7.13	*ềdīnъ	*edinomú	*edinò	new timbres
	(*ồdīnъ	*odinomú	*odinò	in East Slavic)

This yields results identical with those obtained in § 4.1 above (q.v.).

4.2.2. With more severe dissimilation following Winter's law we obtain, omitting the identical earlier stages presented in § 4.2.1:

KSC	acc. sg. m.	dat. sg. m./n.	nom. sg. n.	event
4.3	*HeHdHinum	*HeHdHinosmō̇́i	*HeHdHino	Winter's law
4.4	*Hedinum	*Hedinosmō̇́i	*Hedino	dissimilation
5.5	*ėdinu			some *- <i>m</i> lost
5.11		*edinosmoʻu	—	*-ōi > *-ōu > *-ou
5.12	*ėdinu	*edinasmaˈu	*edina	$*\check{o} > *\check{a}$
6.5	-	*edinasmō	_	monophthongs
6.10	*ềdinu	*edinasmó	*edinà	Pedersen's law
7.9	_	*edinasmú		raising *ē, *ō
(7.10	*àdinu	*adinasmú	*adinà	ESl. * <i>e</i> ->* <i>a</i> -)
7.13	*ёдьпъ	*едьпоти́	*едьпо̀	new timbres
	(*ѷдьпъ	*odьnomú	*одьпо̀	in East Slavic)

This yields the required end-stressed forms with b in the second syllable. These end-stressed forms would have included the nom. sg. m. with subsequent retraction of the stress from final jer at KSC 8.2. If this retraction operated somewhat differently in Čak., in that it did not necessarily skip medial jers, this would provide a straightforward explanation of Čak. jedan, jedan. In defence of this special behaviour it may be noted that some (northern) Čak, dialects had begun to separate from the rest of Slavic as early as KSC 6.9. It may further be noted that Kortlandt's (1975: 14-17) illustration of the fate of medial jers in this connection in Čak. is limited to the gen. pl. For this category Kortlandt cites Novi variants with neo-acute (denoted ') kosác, otác, ovác in which the accented vowel is said to have been analogically lengthened following Stang's law. The reason for this supposition is that beside these forms are the Stang's law variants in which the stress has been retracted from vowels that had been analogically lengthened at an earlier stage: svétāc, kòsāc, òtāc. It is noteworthy that none of these forms exhibits the lengthening of the vowel in the first syllable specified by KSC 8.2, nor can this fact be ascribed to a later shortening in view of *svétāc*. Further Stang's law specifies retraction from (long final) syllables with falling tone: consequently if the Novi forms with the rising neo-acute tone on the reflex of the jer had this accentuation phonetically from KSC 8.2, they would not suffer retraction by Stang's law anyway. Since two different paths of development must be posited willy-nilly for the Novi dialect area anyway, I do not see that anything is lost by assuming the possibility that in at least some parts of Čak. the development at KSC 8.2 was the alternative proposed here. Otherwise the stressed final jer would have to be considered to have been re-introduced by analogy at some later period.

The acc. sg. f. would have had the same stress retraction at KSC 3.3 as the acc. sg. m. It therefore seems possible that the SCr. (Štok.) forms with initial stress, older *jềdna*, dial. *jền*, *ềna*, represent the accentuation of the acc. sg., unless these were produced by the dialectal retraction of stress from final short vowels at KSC 10.12, a process that did not operate in the now standard nom. sg. forms SCr. *jèdna*, *jèdno* to which the m. *jèdan*, in view of its two short vowels, is presumably analogical in this derivation.

4.2.3. We now examine a derivation based on severe dissimilation together with the assumption that the compound was formed posterior to the establishment of accentual mobility (KSC 3.1-3.4):

KSC	acc. sg. m.	dat. sg. m./n.	nom. sg. n.	event
3.1	*h1ed Hinom	*h1ed Hinosmōi	*h1ed Hinom	columnar stress
3.3	*h1ed Hinom	<u> </u>		barytonesis
3.4	_	*h1ed Hinosmōi	_	oxytonesis
3.4A/5	*h1edHinom	*h1edHinosmōi	*h1edHinod	compound formed etc.
3.6	*h1edHinum	—		raising *-om
3.7			*h1edHino	final $*d$ lost
4.3	*HeHdHinum	*HeHdHinosmō॑i	*HeHdHino॑	Winter's law
4.3A	*Hedinum	*Hedinosmō॑i	*Hedino	severe dissimilation
5.1	*edinum	*edinosmōi	*edino	*H->0
5.5	*edinu		_	some *- <i>m</i> lost
5.11	_	*edinosmou	_	*- <i>o</i> i > *- <i>o</i> u > *- <i>o</i> u
5.12	*edinu	*edinasmau	*edina	$*\check{o} > *\check{a}$
6.5	_	*edinasmō॑	_	monophthongs
6.10	*èdinu	*edinasmó	*edinà	Pedersen's law
7.9		*edinasmú		raising *ē, *ō
(7.10	*àdinu	*adinasmú	*adinà	ESl. * <i>e</i> - > * <i>a</i> -)
7.13	*èdьnъ	*edьnomú	*edьnò	new timbres
	*о̀дьпъ	*odьnomú	*odьnò	in East Slavic
8.7	*edъ̀nъ			Dybo's law

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This derivation yields precisely the nom./acc. m. sg. form with stressed penultimate jer, as in Bulg. dial. *edén*, *edún*, SCr. *jèdan* etc. as well as the end-stressed forms. In particular the output seems to yield the preforms for the late retraction that produced the long rising open *é* of Sln. *édan*, *éna*, *éno*, *jédan*, *jédna* etc.

It may also supply a less controversial explanation of Čak. *jedẫn*, *jedãn* than that essayed in § 4.2.2 since the needed stressed final jer can conceivably have acquired its stress later than KSC 8.2 by analogy with the other end-stressed forms in the paradigm.

This particular derivation seems therefore to have much in its favour.

4.3. We now test our third hypothesis for the first component of the compound based on a similar derivation of the two components.

KSC	acc. sg. m.	dat. sg. m./n.	nom. sg. n.	event
3.1	*h1et h3inom	*h ₁ et h ₃ inosmōi	*h1et h3inom	columnar stress
3.3	*h ₁ et h ₃ inom	—	—	barytonesis
3.4		*h₁et h₃inosmō̇́i	*h ₁ et h ₃ inot	oxytonesis etc.
3.6	*h ₁ et h ₃ inum	_	_	raising *-om
4.3	*h ₁ et h ₃ inum	*h ₁ et h ₃ inosmōi		Winter's law
4.3A	*h1edh3inum	*h1edh3inosmōi	*h1edh3inot	compound formed
4.3B	—	_	*HedHino	final *t lost
5.1	*edHinum	*edHinosmō̇́i	*edHino	*H->0
5.3	—	*edīnosmō [†] i	*edīno	before Meillet
5.4	*edīˈnum	— —	_	Meillet's law
5.5	*edīˈnu	—		some *- <i>m</i> lost
5.11		*edīnosmo ['] u		*-ōi > *-ōu > *-ou
5.12	*edīˈnu	*edīnasmau	*edīna	$*reve{o}>*reve{a}$
6.5		*edīnasmō	_	monophthongs
6.10	*èdīnu	*edīnasmó	*edīnà	Pedersen's law
7.9		*edīnasmú	_	raising *ē़, *ō
(7.10	*àdīnu	*adīnasmú	*adīnà	ESl. * <i>e</i> ->* <i>a</i> -)
7.13	*èdīnъ	*edinomú	*edinò	new timbres
	(*àdīnъ	*odinomú	*odinò	in East Slavic)
8.7	*edînъ	*edinomú	*edinò	Dybo's law
9.3	*èdīnъ	—		Stang's law

This also yields the stress on the first syllable and the long vowel in the second syllable of SCr. $j \ddot{e} d \bar{i} n$. It cannot yield end-stressed forms with b in the second syllable without the highly artificial requirement that the laryngeal disappear after voicing the medial **t* reconstructed for this solution. I therefore

conclude that this solution has little to recommend it and can be safely discarded. In a way this is a good thing because it enables a return to the view that the accent condition for voicing by h_3 in Slavic was the same as for Greek and Vedic (§ 3.3.2 above).

5.

We are thus left with a variety of solutions to our problem of PSI. **edīn*- as a compound depending on the assumption we make concerning the origin of the forms reflecting a medial jer.

5.1. If we assume that the PSI. stem *edin- is basic to all the attested Slavic forms of our numeral and that those apparently reflecting medial jer are the result of analogical adoption of mobile stress resulting in syncope of the medial vowel followed by the introduction of a fill vowel in the nom./acc. sg. m., then we have the three solutions of chapter 3 above, though I would prefer now to discard the third for the reason just given (§ 4.3 above). This general approach certainly seems to be required for Slovenian (*j*)edin and is only contradicted by the superficially similar SerboCroat forms and one Russian substantive.

The simpler of the two remaining solutions is no doubt the one based on the protoform h_1ed^he -HiHno- with stress on any but the first syllable (§ 3.1). It has the advantage that its formation can occur at any time prior to the monophthongization of KSC 6.5. Its chief drawback is that the element h_1ed^he - is otherwise unknown in Slavic unless one wishes to see the same element in PSI. *ed(b)va 'hardly, only just', in which, however, there is no sign of the second *e. Nevertheless a brief disquisition on this word may not be out of place here.

5.1.1. The second element of the particle *ed(b)va has generally been connected with Lith $v\delta s$ (e.g. Trubačov 1979: s.v. ed(b)va; Vasmer/Trubačov 1986-1987: s.v. edva; Fraenkel 1962-1965: s.v. $v\delta s$) and so also by Derksen (2008: s.v. ed(b)va) whose reconstruction $*ueh_{2}s$ can hardly be correct in view of the Lith. circumflex (which is perhaps why Smoczyński 2007 declines to deal with the item). The correct reconstruction for the monosyllabic Lith. word, if part of PSI. *ed(b)va is cognate, is $*u\delta Hs$ since EBaltic does not distinguish between inherited *ua and $*u\delta$ (Woodhouse 2011: 173)²² and the laryngeal would be lost following the lengthened grade vowel in the Baltic word according to Kortlandt's rule (1985; 1988b: 299). Which laryngeal was actually present is therefore strictly speaking indeterminable. In Slavic the lengthened grade must have been replaced by the normal or full grade when the compound came into being.

²² The same rule probably applies to Old Prussian too, but $v\tilde{o}s$ is not represented there, and I have not yet felt the need to extend the principle to this language.

I think this idea is not incompatible with the suggestion that the element *edwas abstracted from *edīn- at an early stage while the limiting semantics of the particle was still alive. Subsequently a further limiting particle *le or *li (cf. OCS lē, elē, ORuss. jelē, jelb, cited in Vasmer/Trubačov 1986-1987: s.v. éle) was added dialectally yielding Russ. dial. lédva, Cz. dial., Slk. ledva etc. (see Derksen 2008: s.v. *ed(b)và). Under this view, of course, the *ed- of *ed(b)và ceases to supply independent support for the similar element of *edīn-.

There is, however, an alternative derivation. Other descendants of PSI. *ed(b)và, such as Russ. dial. lédvé, Po. ledwie, suggest a strong, perhaps original, connection with the numeral 'two',²³ forms such as Slk. *ledvo*, OPo. *jedwo* even supplying a parallel with the shortened forms of the numeral as found in Greek, Armenian, Vedic, Latin, Germanic and Celtic (on which see, e.g., Beekes 2010: s.v. δύο). Only the Slovene and SerboCroat (including Čak.) forms of 'two' are against this but in terms of Derksen's reconstructions of 'two', viz. BSI. *duo?; duo-i? < PIE *duo- h_i ; *duo- ih_i (2008: s.v. *d(b)va), these South Slavic forms seem to be divergent anyway. Semantically the proposed connection can be justified as follows. The sense of uncertainty that must pervade an action qualified by the particle $*ed(b)v\dot{a}$ 'only just' is very close to the idea of 'doubt', an idea that is commonly connected with 'two'; during the performance of such an action there may indeed be grave doubts as to whether it will lead to a successful conclusion.²⁴ Phonologically we might consider that in the compound $*h_1ed^he$ -duo(i) h_1 the *e between the two similar consonants would be syncopated, whereupon the resulting cluster would be simplified in favour of the nonglottalized member.

On the other hand the variant endings can also be explained as imitating other common Slavic adverbial endings, so that on balance I believe the first explanation of *ed(b)va given above is to be upheld and preferred. Since, as already noted, this explanation sheds no light on the origin of the element PSI. *ed-, the latter is therefore better related in the traditional way to the PIE pronominal $*h_1e$ - that is well attested in Slavic (despite its merger with the PIE relative *Hio-) together with the PIE neut. desinence *-d.

5.2. Returning now to our solutions for $*ed\bar{i}n$: if, on the other hand, we wish to assume that the forms reflecting medial jer were derived in parallel with those reflecting medial $*\bar{i}$ from a relatively remote period, then the only solution

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²³ Though not quite in the way envisaged by Pisani, which is referred to briefly and disparagingly by Trubačov in Vasmer/Trubačov 1986-1987: s.v. edvá.

²⁴ Perhaps we could also invoke Eng. got it in one, which conveys the idea of rapid successful completion of an action (usually of comprehension); in a sense the expression implies the actually nonexistent **got it in two as something less than blindingly successful.

worth considering is the assumption that the protoform $*h_ledHiHno-$ did indeed contain PIE *d and that the laryngeal part of this *d was indeed separated from the buccal part by Winter's law; whereupon the overabundance of laryngeal reflexes in close proximity in the resulting stem led to the dissimilative loss, prior to the precursor to Meillet's law, of one or more of them, certainly including the reflex that derived from Winter's law.

The derivation presented in § 4.2.1 (with results equal to those of § 4.1) yields Russ. *odiná* and SCr. acc. sg. m. *jëdīn*, the latter presumably passing its long vowel on to SCr. *jèdīnī*.

There must have also been a second paradigm developing as in either § 4.2.2 or § 4.2.3 yielding the jer in the second syllable, together with end-stressed forms, including a reconstructed nom. sg. m. with stressed final jer. This stressed final jer provides a somewhat controversial explanation of Čak. *jedẫn*, *jedãn* (see § 4.2.2 above), though a simpler explanation of these items in terms of an analogically reintroduced stressed final jer is also possible and perhaps to be preferred.

In addition, § 4.2.2 yields acc. sg. forms stressed on the first syllable which might be the ultimate source of SCr. *jëdna*, dial. *jën*, *ëna* and Slnc. *jãděn*, though the SCr. forms may also be the result of various analogies combining the initial-stressed forms of § 4.2.1 with the jer forms of § 4.2.3, while the Slowincian form may derive at KSC 8.2 from a form with stressed final jer.

The special feature of § 4.2.3 is the stressed jer in the second syllable. This supplies a phonetic explanation for SCr. *jèdan* etc. and Sln. *édan*, *éna*, *éno*, *jédan*, *jédna*.

On balance, it would appear that the derivation of § 4.2.3 is to be preferred to that of § 4.2.2 and that therefore § 4.2.1 and § 4.2.3 combine to account for all the data belonging to mobile paradigms listed in § 2 above.

6. Conclusion

In order to account for both acute and non-acute forms in a principled way without fundamental recourse to analogy, it appears that paradigms developed under both chapters 3 and 4 are required.

In practical terms this means that there arose, presumably in different parts of the Slavic realm to begin with, several treatments of the phrasal unit h_1ed *HiHnó*- that came to stand for the numeral 'one', three of which survived – one having undergone Hirt's law and developing fixed stress on an acute in the second syllable, the other two losing the critical laryngeal early enough to escape Hirt's law. All three underwent post-Winter dissimilation of laryngeal reflexes in different degrees, losing the inner, Winter's law reflex in the first syllable.

One of the two that developed accentual mobility had been reanalysed as a compound before the rise of mobility and had undergone minimal laryngeal dissimilation (\S 4.2.1); the other had become a compound after the rise of mobility and had undergone maximal dissimilation (\S 4.2.3). The detailed outcomes of the two surviving mobile paradigms are discussed in chapter 5 above.

Finally, in this scenario, the forms in Suprasliensis and patchily in other OCS texts spelt with neither *i* nor *b*, as well as Uk. *odná*, *odnó* etc., may indeed reflect the aberrant development described in § 2 above, but this would not have been a pan-Slavic phenomenon.

Perhaps most important in the above is the demonstration that it is possible to posit a well-motivated protoform containing PIE *d that did not mysteriously escape Winter's law but instead lost its effect through dissimilation.

Postscript. The initial nom. sg. n. forms of the *-*in*-component have been given the ending *-*m* as required by the comparative evidence, viz. Ved. *ékam*, Av. **aivam*, Lat. *unum*, Gk. *oiov* ('alone'), Goth. *ain*, OHG *ein*. True, there is an alleged Goth. "*ainata*", as well as a definitely attested OHG *einaz*, but these belong with a Proto-Germanic hesitation between nominal *-*m* and pronominal *-*d* for this slot in adjectival paradigms generally, which reflects a further, perhaps the final, stage in the spread of pronominal endings at the expense of nominal ones as already evidenced in the paradigms of '1' in all the above languages except Greek.

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