Miguel VILLANUEVA SVENSSON
Vilnius University

ZERO-GRADE DENOMINATIVE NASAL AND *sta*-PRESENTS IN BALTIC

Abstract. The article deals with relics of zero-grade fientive denominative nasal and *sta*-presents in Baltic even when derived from full-grade nominals, a derivational pattern going back to "Northern Indo-European".
Keywords: Baltic; Indo-European; historical morphology; verb; denominative; ablaut.

1. Lithuanian and Latvian have a wealthy class of fientive denominative nasal and *sta*-presents, e.g. Lith. *šlãpias* "wet" → *šlàpti*, *šlañpa* "become wet", *ìlgas* "long" → *ìlgti*, *-sta* "grow longer", Latv. *slapjš* → *slapt*, *slùopu*, *il̃gs* → *il̃gt*, *-stu*. In this article I will argue that the derivational pattern inherited by (East) Baltic involved zero grade of the root even when derived from full-grade nominals, the ablaut invariance of historical Lithuanian and Latvian being a relatively recent innovation. In order to see the issue in its proper perspective it will be convenient to begin with a brief discussion of the position of denominatives in the anticausative-inchoative class of verbs of the northern Indo-European languages.

2. As is well known, Baltic, Slavic and Germanic share a productive class of anticausative-inchoative verbs most saliently characterized by a nasal present, e.g. Lith. *lìp-ti*, pres. *li-m̃-p-a*, pret. *lìp-o* "stick to", OCS *pri-lь(p)-nǫ-ti*, pres. *-lь(p)-ne-tъ*, aor. *-lьp-e* "id.", Go. *af-lif-na-n*, pres. *-lif-ni-þ*, pret. *-lif-no-da* "be left over". The origins and development of this class cannot be discussed within the limits of this article (my views have been presented in Villanueva Svensson 2011). Here I will only highlight the essential facts insofar as they help define the very existence of a "northern" class of verbs and/or are relevant for the nasal present denominatives:

First, the functional value of the nasal presents in the northern languages contrasts markedly with that which we can reconstruct for Indo-European,

where nasal presents were typically transitive. As expected in a widely represented class, intransitive nasal presents do of course occur in other languages (e.g. Lat. *fungor* "enjoy" = Ved. *bhuṅkté* "id.", but also act. *bhuṇákti* "offer enjoyment"), but a consistent class of *intransitive* nasal presents is found in the northern languages alone. This is the main argument for assuming that it rests on a common innovation.

Second, from a formal point of view the nasal presents display slightly different morphology in each of the three northern branches, but there is plenty of evidence pointing to a common Baltic-like prototype **li-m-p-é-ti*, with zero grade of the root, nasal *infix*, and thematic inflection (note relics like Go. *standan* "stand", OCS *sěsti*, *sędǫ* "sit down", etc.). This has been conclusively shown by G o r b a c h o v (2007), to whom I refer for the details. The formal features of the present type **li-m-p-é-ti* are not particularly surprising in an Indo-European perspective, but the clarity with which such an (innovated) prototype can be reconstructed for northern Indo-European is noteworthy.

Third, although the present type **limpéti* is the most salient morphological feature of the northern anticausative-inchoative class, it is not the only one. As far as the present stem is concerned, one should mention an archaic layer of *i̯e/o*-presents (e.g. OCS, ORu. *pri-lъple-* ~ *-lъ(p)ne-* "cling, cleave to", ON *liggja*, OE *licgan* "lie"; see V i l l a n u e v a S v e n s s o n 2011, 48ff., building on T e d e s c o 1948) and the *sta*-presents with which nasal presents stand in complementary distribution in Baltic and perhaps in Balto-Slavic (see V i l l a n u e v a S v e n s s o n 2010; G o r b a c h o v 2014 for two recent and mutually incompatible proposals). There are good reasons to believe that the anticausative-inchoative class involved a thematic aorist as its regular aorist formation (**lip-é-t*, OCS *pri-lъpe* "stuck to"). The thematic aorist, however, is directly preserved only in Slavic (the preterit formations of Baltic and Germanic are clearly innovated) and, accordingly, this cannot be proved.

Fourth, an important argument in favor of a common origin of the type **limpéti* in Baltic, Slavic and Germanic is its position in the verbal system. In Indo-European nasal presents were typically used to provide a present stem to active-transitive root aorists (e.g. Ved. pres. *bhinátti* : aor. *ábhet* "split"). Predictably, in the languages they usually surface as primary verbs (Lat. *findō*, *-ere*, *fidī* "split"). By contrast, northern deverbatives of the type **limpéti* typically belong to one of the following two derivational patterns: i) anticaus-

atives to primary transitive-terminative verbs (e.g. Go. *(ga-)brikan* "break, crush" → *us-bruknan* "be broken off"; Lith. *skleĩsti, skleĩdžia* "spread (tr.)" → *sklìsti, sklìñda* "spread (intr.)"); ii) inchoatives to stative or durative verbs (e.g. Go. *wakan, -aiþ* "be awake" → *ga-waknan* "wake up"; OCS *bъděti, bъždǫ* "be awake" → *vъz-bъ(d)nǫti* "wake up").[1]

3. The third derivational pattern in which the type **limpéti* is productive is that of fientive denominatives from adjectives and, less commonly, nouns. Their general meaning is "become X", where "X" symbolizes what the adjective or noun denotes. Denominatives display exactly the same morphology as the deverbatives and are abundantly represented in all three branches:

Go. *fulls* "full" → *(ga-)fullnan* "become filled";

Lith. *šlùbas* "lame" → *šlùbti, šlum̃ba* "become lame";

CS *lixъ* "abundant, excessive" → *lixnǫti* "become abundant, excessive".

An interesting feature of the denominatives is that they present zero grade of the root when derived from full-grade nominals in Old Norse (where the type is still productive) and oldest Slavic (where the type became unproductive and was replaced by denominatives in *-ěti, -ějǫ*, e.g. *starъ* "old" → *sъ-starěti sę* "become old"). Some examples:

ON *blautr* "weak" → *blotna* "grow weak",
ON *heitr* "hot" → *hitna* "become hot",
ON *hvítr* "white" → *hvitna* "turn white",
ON *starkr* "rigid, sturdy" → *storkna* "coagulate",
OCS *gluxъ* "deaf" → *o-glъxnǫti* "become deaf",
OCS *mrazъ* "frost, ice" → *sъ-/po-mrъznǫti* "freeze over, become congealed",
OCS *slěpъ* "blind" → *o-slьpnǫti* "go blind",
OCS *xromъ* "lame" → *o-xrъmnǫti* "grow lame".

The agreement between North Germanic and Slavic can only be an archaism, the ablaut invariance of Gothic (*hails* "healthy" → *ga-hailnan* "be healed", etc.) being an easily understood innovation. A relic of the original morphology is preserved anyway in Go. *ga-staurknan* "become rigid" (= ON *storkna* "coagulate"), no doubt because the base adjective **starks* "strong" was lost in East Germanic (cf. G o r b a c h o v 2007, 72). Ablaut invariance

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[1] The northern type **li-m-p-é-ti* certainly includes primary verbs, but most of them are suspect of being relatively recent.

is predictably also found in Old Norse, where it is rare (e.g. *sjúkna* for older *sokna* "fall ill" after *sjúkr* "sick"), and in Slavic (e.g. Ru. *slépnut'* for OCS *-slъpnǫti* after Ru. *slepój* "blind"). The same innovation that took place in Gothic took place in (East) Baltic as well, where nasal and *sta*-present denominatives regularly present the same vocalism as the derivational base (see below).

Northern denominatives of the type **limpéti* have received relatively little attention in the literature, but they are interesting for at least two reasons:

First, they have a remarkable probative force for the very existence of a northern Indo-European class of (secondary!) anticausative-inchoative verbs. The nasal infix was not used to make denominatives in Indo-European, a fact that implies that we must be dealing with an innovation. Even more important is the fact that Indo-European denominatives did not have zero grade of the root when derived from full-grade nominals. The innovation we are dealing with must thus be highly specific.[2]

The origin of the northern denominative type is reasonably clear on theoretical grounds: some deverbative anticausatives and/or inchoatives were secondarily associated to an adjective or noun of the same root and reinterpreted as fientive denominatives. A new denominative type was thus born and quickly became productive. Unfortunately, the original core that gave rise to this process is impossible to determine because of the very nature of the available evidence (exactly the same problem, it must be noted, is found with the northern deverbatives themselves). The essential point to stress in our present connection is that there must have been a robust class of anticausatives and/or inchoatives for a new denominative type to develop and that the existence of a denominative type characterized by nasal infix, thematic inflection, and consistent zero-grade of the root is so peculiar that it is unlikely to rest on parallel, but independent developments of the three branches. It must have arisen in "Northern Indo-European" itself.

Second, taking the denominatives seriously may give us an additional device to uncover the prehistory of individual verbs and/or word-families in Baltic, Slavic and Germanic. The derivational base of an original denomina-

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[2] A third possible argument would be the associated thematic aorist of denominatives in Slavic, if sufficiently old. As already observed, however, although there are good reasons to project the Slavic thematic aorist of Leskien's Class II back into northern Indo-European, this cannot be proved.

tive may be lost. The denominative may be reinterpreted as a primary verb and give rise to new derivatives of its own, eventually including a back-formed transitive that would be synchronically indistinguishable from other primary verbs of the language. There is hardly any necessity to observe that such a framework may have an impact on research on "root-enlargements" and other processes leading to the creation of neo-roots in these dialects of Indo-European (see below for some examples).[3]

4. We can turn now to Baltic, where the nasal presents must needless to say be studied together with the *sta*-presents with which they stand in complementary distribution.[4]

Fientive denominatives are very well represented in Lithuanian (215 examples, according to P a k a l n i š k i e n ė 2000, 72), somewhat less in Latvian (48 examples, according to H a u z e n b e r g a - Š t u r m a 1970, 184).[5] The root vocalism of the denominative regularly copies that of the nominal base (in spite of the fact that zero-grade is perfectly well established among deverbatives), e.g. *žãlias* "green" → *žálti*, *žla̧/-sta* "grow green", *sẽnas* "old" → *sénti*, *-sta* "grow old", *sveĩkas* "healthy" → *sveĩkti*, *-sta* "get better, recover", etc.

In other words, Lithuanian and Latvian present exactly the same picture as Gothic and must rest on an equally trivial innovation. From the preceding section, however, it is clear that the pattern inherited by Baltic regularly involved zero-grade of the root even when derived from full-grade nominals. It is perfectly possible, in principle, that some zero-grade denominatives survived into historical times – presumably not as transparent synchronic

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[3] In a more speculative vein, one could consider the possibility that the fientive deverbatives, once firmly established in the language, could have a certain impact on the development of the system of anticausative and inchoative deverbatives. Elsewhere I have argued that the inchoatives were originally characterized by a *i̯e/o*-present, inchoative nasal presents being a secondary import from the anticausatives (V i l l a n u e v a S v e n s s o n 2011, 46ff.). Fientive denominatives must have been frequently paired with a stative denominative in **-eh₁-i̯e/o-*. It is at least conceivable that this fact had a certain influence on the constitution of the characteristic Balto-Slavic deverbative pattern stative Lith. *budéti*, *bùdi*, OCS *bъděti*, *bъdi-* "be awake" : inchoative Lith. *pa-bùsti*, *-buñda*, OCS *vъz-bъ(d)nǫti*, *-bъ(d)nǫ* "wake up".

[4] The rules ordering the distribution of nasal and *sta*-presents in Lithuanian are well-known and have been described many times (e.g. S t a n g 1966, 340ff.). See V i l l a n u e v a S v e n s s o n (2010, 206ff.; 2011, 34f.) for their distribution in Proto-Baltic.

[5] The absence of certain examples in Old Prussian is surely due to chance.

denominatives, but as "disguised" ones whose denominative origin can only be recovered from a historical perspective.

In what follows I will discuss potential examples of inherited zero-grade denominatives in Baltic. The survey is mostly centered on Lithuanian and does not try to be exhaustive. It is rather intended to exemplify the type of evidence and problems we are dealing with. If the framework developed in this article is accepted, I am certain that more examples will show up in the future.

5. The first surprise one finds when approaching the evidence in this perspective is that synchronically recognizable zero-grade denominatives are actually attested in Lithuanian:

? (1) *aršùs* AP 4 "furious, violent" (Latv. *aršâk(i)* "more", *ārsala* "angry woman") → dial. **iřšti**, **-šta** "rage, go angry" (Latv. **sa-irstiês** "id.").

(2) *bjaūrus/bjaurùs*, *bjaūras* AP 2/4 "ugly" (Latv. *bļaûrs* "bad, awful") → **bjùrti**, **bjū̃ra/bjùrsta** "become ugly" (also rare dial. *bjaurti*, *-sta* "id.").

(3) *brángus/brangùs* AP 1/3 "expensive" (Latv. *brañgs* "id.") → dial. **brìngti**, **-sta** "become expensive" (normal *brángti*, *-sta* "id.").

(4) *draũgas* AP 4 "friend" → OLith. **su-drugti**, **-sta** "become friends with" Bretkūnas (also *draũgti*, *-ia* "be friends with" Daukša; normal *draugáuti*, *-áuja* "id.").

(5) *kartùs* AP 3/4 "bitter" → dial. **kiřsti**, **-sta** "turn bitter" (normal *kařsti*, *-sta* "id.", also *kartéti*, *-éja* "id.").

(6) *kiáuras* AP 3 "holey" (Latv. *caũrs* "id.") → **kiùrti**, **kiū̃ra/kiùrsta** "grow holey, get holes".

(7) *líesas* AP 1/3 "lean, thin" (Latv. *liẽss* "id.") → **lýsti**, **-sta** "grow thin" (also *lieséti*, *-éja* "id.", dial. *líesti*, *-sta* "id."; Latv. *liẽst*, *-stu* "id.").

(8) *lúošas* AP 3 "lame" → dial. **ap-lušti**, **-lūšta** "become lame" (very rare; also *luõšti*, *-šta* "id.").

(9) *niaurùs*, *niaũras* AP 4 "sullen, gloomy, rusty" → **niùrti**, **niũra/niùrsta** "grow gloomy" (also adj. *niũrùs*, but the initial palatalization requires a full-grade base).

(10) *siaũras* AP 4 "narrow" (Latv. *šàurs*) → dial. **siùrti**, **siū̃ra** "grow narrow" (very rare; normal *siauréti*, *-éja* "id.").

Although self-explanatory at first sight, not all examples are equally certain. Zero-grade seems to be the rule among roots ending in °*r-* (*bjùrti*, *kiùrti*, *niùrti*, all of them belonging to the standard language, dial. *siùrti*), whereas other root structures are more erratically represented and only *lýsti* is normal in standard Lithuanian. The case of dial. *iřšti*, *brìngti*, *kiřsti* (← *aršùs*, *brangùs*,

kartùs) is particularly uncertain because deverbative *u*-stem adjectives with *o*-grade of the root (ultimately continuing the PIE type τομός) are productive in Lithuanian (*mir̃ti* "die" → *marùs* "mortal", etc.). The possibility that we are dealing with an old primary verb is high in the case of *aršùs* ∼ *ir̃šti* (cf. dial. *aršýtis* "get excited, rage", *ēštas* "anger"),[6] but I find it unlikely in the case of *kartùs* ∼ *kir̃sti* and *brangùs* ∼ *brìngti* (note, in addition to the semantics, that the original immobility of *bràngus/brangùs* is untypical for deverbative adjectives the type *marùs*). An occasional reversion of the derivational channel *mir̃ti* → *marùs* into *kartùs* → *kir̃sti* can perhaps not be excluded, but would be distinctly rare.

Apart from Lith. *draũgas*, Latv. *dràugs* (: OCS *drugъ*) none of the items mentioned above has a completely certain extra-Baltic etymology. Accordingly, in many of them we must be dealing with purely (East) Baltic material. *bjaurùs*, *kiáuras*, *niaũras*, *siaũras* → *bjùrti*, *kiùrti*, *niùrti*, *siùrti* must have been created after the sound change *-*euC*- > *-*i̯auC*-. The chronology of this sound change is disputed, but there is some evidence suggesting that it was a relatively late development that took place independently in Slavic and Baltic (cf. V i l l a n u e v a S v e n s s o n 2015a, with references; see further below § 8.2). Finally, *lúošas* → *ap-lùšti* implies an exclusively East Baltic neo-ablaut (*-*ō*- >) -*uo*- → -*ŭ*- (cf. V i l l a n u e v a S v e n s s o n 2015b, 322ff.). The provisional conclusion seems to be that the derivational process involving zero-grade denominatives did not just leave some relics in Baltic, but was kept alive, at least marginally, in Proto-East Baltic.

Cases like *bjaurùs* → *bjùrti* etc. have only occasionally been noted in the literature (e.g. P a k a l n i š k i e n ė 2000, 73) and never been highlighted as potentially interesting. In point of fact, most treatments simply do not mention them.[7] The only exception known to me is G o r b a c h o v (2007, 162),

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[6] The idea that *aršùs*, *ir̃šti* etc. are Byelorussian loan words (e.g. F r a e n k e l LEW 16f., 187) is almost certainly false, cf. U r b u t i s 1989, 44ff.

[7] It may be illustrative to see how they are treated in the etymological dictionaries (as, put it this way, their authors could not escape this material for the sake of clarity of exposition). The only comment I have found in Fraenkel is that *lýsti* "lautet ab mit *líesas*" (376). Other examples are regularly mentioned, but not commented upon. S m o c z y ń s k i (2007) offers alternative accounts for *kiùrti* (282) and *niùrti* (426), declares -*drùgti* unclear (120), and makes no comment on the other forms. ALEW (2015) offers an alternative account of -*drùgti* (988), considers *brìngti* a primary verb (130), and qualifies

who correctly observes that *sùsti*, *sũsta* "grow scabby; wither" and *tùkti*, *tuñka* "grow fat" are relics of the original northern Indo-European morphology of nasal present denominatives. Unfortunately, both items are problematic:

> (11) *taukaĩ* AP 3 "fat" (Latv. *tàuki* "id.", adj. *tàuks* "fat, greasy", OPr. *taukis* "lard" Elb.) → **tùkti, tuñka (-sta)** "grow fat" (Latv. **tukt, tùku**, also **tûkt, -stu** "id.") → caus. *tùkinti* "make fat", adj. *tuklùs* "fat, greasy", etc. (Latv. *tucinât*, *tukls*).

The Baltic word for "fat" has clear cognates in the northern languages: Sl. **tûkъ* AP *c* "fat" (OCS *tukъ*, Ru. *tuk*, SCr. *tûk*, etc.; with derivatives like **tučьnъ* "fat, rich" [OCS *tučьnъ*, Ru. *túčnyj*, etc.], **tučiti* "make fat; (refl.) grow fat" [Ukr. *túčyty*, Pol. *tuczyć*]), Gmc. **þeuha-* n. "thigh" (ON *þjó*, OE *þēoh*, OHG *dioh*). Although less certain, here probably belong MIr. *tón* "hindquarters, bottom" (< **tuknā*?; see Z a i r 2012, 155 on MW *tin* "arse, buttocks, bottom"), Lat. *tucca*, *tuccētum* "a kind of sausage" Pers.+ (Gaulish loan word), Um. gen. sg. *toco* TI Vb 13 "Hinterschinken" (*vel sim.*; cf. U n - t e r m a n n 2000, 774).

It is generally agreed upon that these forms are related to the root **teuh₂-* "grow fat, strong" (Ved. *tavīti* "becomes strong", Sl. **týti*, **-jǫ* AP *a* "grow fat", etc.; LIV 639f.), but the ultimate analysis is problematic. A "root-enlargement" **teuHk-* is probably the standard approach (e.g. IEW 1081), whereas the LIV posits a "Parallelwurzel" **teuk-* (641). The main argument for the latter approach is the interpretation of the Indo-Iranian root **tu̯akš-* (Ved. *tvakṣ-* "be active, be strong", Ir. **θu̯axš-* "be busy, work on") as a fossilized desiderative **tu̯ek-s-* with secondary State II of the root (as in **h₂eug-* → **h₂u̯ek-s-*, etc.). This is attractive, but not conclusive. Leaving Baltic aside, the evidence is multiply ambiguous and does not allow deciding between **teuHk-* and **teuk-* (Sl. **tûkъ* is ambiguous as a result of Meillet's law; MIr. *tón*, if it really goes back to **tuknā*, could point to **teuk-*, but the short vowel could be explained via Dybo's law [M a t a s o v i ć 2009, 393] or via "Wetter's rule" [B a l l e s 2011, 281]).

In my view, a problem with both approaches is that the concepts of "root-enlargement" and "parallel roots" are virtually impossible to control and

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bjùrti, *lýsti*, *niùrti* as "regelmäßig tiefstufiges intransitives Inchoativum" (119, s.v. **bjùrti*). It is unclear to me what "regelmäßig" means in this context. D e r k s e n (2015) is the only author who correctly observes that *kiùrti* is "a denominative verb belonging to *kiáuras*" (249; other verbs are not mentioned), but does not add any other observation.

should be avoided unless the facts compel us to do otherwise. A more rational approach would be to start from a real derivative *$teuh_2$-ko-, *$touh_2$-ko- or *tuh_2-ko- as the source of the Western forms. This would force us to leave In.-Ir. *$tu̯akš$- aside and it remains a task for the future to work out the evidence in detail.

There is no need to take a strong position here. The relationship between *tùkti*, *tuñka* and *taukaĩ* is so obvious even in modern Lithuanian that a denominative is the most likely solution under any root analysis. Even if we are dealing with a "real" root *teuHk- or *teuk-, the fact remains that *tùkti*, *tuñka* would stand alone as the only witness of a PIE primary verb (if LIV's analysis of In.-Ir. *$tu̯akš$- is correct, it would be an extremely old formation and thus hardly relevant for *tùkti*).

The original intonation of this Baltic word family is surprisingly indeterminate. Acute intonation predominates in Lithuanian, circumflex in Latvian, without it being easy to derive one from the other. If we start from (pre-)Bl. *taũka- (Latv. *tàuki*), Lith. *tùkti*, *tuñka*, Latv. *tukt*, *tùku* are unproblematic, but not Latv. *tûkt*, *-stu*. If we start from (pre-)Bl. *táuka- or *tṓuko- (Lith. *taukaĩ* AP 3), I see two possible solutions for the short vowel of *tùkti*. The denominative could have been formed at a time when "normal" zero-grade derivatives could be made from "long vowel" bases as *tṓuko-. This is perhaps conceivable, but hardly attractive. Alternatively, one could recall the fact that pairs of normal zero-grade nasal present and lengthened zero-grade *sta*-present from original acute roots are well attested in East Baltic (e.g. Lith. *skýsti*, *-sta* "liquify" ∼ *skìsti*, *skiñda* "become flimsy", *trū́kti*, *-sta* "be lacking, burst" ∼ *trùkti*, *truñka* "last, continue", etc.). The origin of this phenomenon is unclear, but its reality cannot be doubted. This framework would actually explain why we have not only Lith. *tùkti*, *tuñka*, Latv. *tukt*, *tùku*, but also Latv. *tûkt*, *-stu* (which is otherwise hard to generate within Latvian).

? (12) *saũsas* AP 4 "dry" (Latv. *sàuss* "id.") → **sùsti**, **sū̃sta** "grow scabby; wither" (Latv. **sust**, **-u** "become dry"; also *saũsti*, *-sta* "become dry", *sauséti*, *-éja* "id.", Latv. *sàust*[2], *-stu*, *sàusêt*, *-ẽju*, *susêt*, *-u*).

At first sight *saũsas → sùsti* looks like an almost ideal example, for two reasons: i) *sùsti*, *sū̃sta* has secondary semantics vis-à-vis the later denominative *saũsti*, *-sta*, which is exactly what we would expect in an archaism; ii) OCS *suxъ* "dry" → *-sъxnǫti*, *-sъxnǫ* "wither, become dry" offers an

apparently perfect *comparandum*, thus pointing to a Balto-Slavic denominative **su–n–s–e–ti* "becomes dry".

On closer inspection, however, it is by no means certain that we are actually dealing with a denominative. Beside OCS *-sъne-* there is a well-established *je*-present OCS *-sъše-* (cf. Tedesco 1948, 358) with reasonable cognates in Ved. *śúṣyati* "dries up", Gk. αὔω "dry (tr.)", all of them pointing to a PIE *i̯e/o*-present **h₂sus-i̯é/ó-* (e.g. LIV 285).

The existence of an archaic *i̯e/o*-present in oldest Slavic does not automatically prove that Lith. *sùsti*, *sũsta* is not an old nasal present denominative, but of course it would be preferable to keep the equation OCS *-sъxnǫti*, *-sъne-/-sъše-* = Lith. *sùsti*, *sũsta*. Slavic actually has a couple of denominative *je*-present variants beside "normal" *ne*-presents (*krěpъ* "strong" → ORu. *o-krěple-* "become strong", *slěpъ* "blind" → ORu. *o-slьple-* "go blind", cf. Sigalov 1961, 93) and there is no reason why the northern fientive denominatives could not have encompassed *i̯e/o*-presents in addition to nasal presents. If this is the case, **h₂sous-ó-* "dry" ∼ **h₂sus-i̯é/ó-* "become dry" must have been one of the core pairs that gave rise to the whole process (the other option would be to assume that ORu. *o-krěple-*, *o-slьple-* represent a very moderate expansion of "Class II" *je*-presents in some varieties of Slavic).

Turning back to Lith. *sùsti*, *sũsta*, from what has been said it is clear that it is not a probative example of an old nasal denominative. On the other hand, its preservation into historical times (note that its relationship to *saũsas* is self-evident and that Latv. *sust*, *-u*, unlike Lith. *sùsti*, does not have specialized semantics) makes better sense if it was supported by a class of zero-grade denominatives.

6. The examples discussed in § 5 are exceptional. Qua archaisms one would not expect old zero-grade denominatives to be still recognizable as such. In a branch characterized by such a rich derivational system as Baltic we would rather expect them to be synchronically embodied in large word families, their denominative origin being only recoverable from a historical perspective (as to some degree is the case with *taukaĩ → tùkti → tuklùs*). In this section I will examine some synchronically opaque denominatives:

(13) **graũbas* "rough, uneven" → **grùbti**, **grum̃ba** "become numb, coarsen" → *grub(l)ùs* AP 4 "rough, uneven".

This word family includes many derivatives (*gruoblė̃* "unevenness (of terrain)", *graublė̃* "id.", *grùb(l)as* "id.", Latv. *grubulis* "unevenness, clod", etc.),

all of them clearly dependent on adj. *grub(l)ùs*. Note further Latv. *grumbt*, *-ju* "wrinkle", which looks like a cognate of Lith. *grùbti*, *grum̃ba* with *-m-* resegmented as part of the root and transfer to the *ia*-presents.

Other things being equal one would take *grùbti* as an unremarkable denominative of *grubùs*. In Slavic, however, we have adj. **grubъ* "coarse, rude" beside **grǫbъ* "id." (OCS *grǫbъ*, Ru. *grúbyj*, Pol. *gruby*, dial. *gręby*, SCr. *grûb*, Slvn. *grộb*, Bulg. *grub*), which can hardly be interpreted otherwise than as a full-grade adjective **groub-o-* and a secondary adjective **grumb-o-* that adopted its *-um-* from an original nasal present cognate with Lith. *grùbti*, *grum̃ba*. Its more natural interpretation is a zero-grade denominative of Bl.-Sl. **groub-o-*. The derivation of a secondary adjective *grub(l)ùs* from *grùbti* in Baltic is unproblematic, as is the fact that *grub(l)ùs* eventually replaced **graũbas*. The end result was an (East) Baltic word family in which *grùbti* was naturally reinterpreted as a denominative of its original derivative *grubùs*.

> (14) *kraupùs* AP 4 "frightful" (Latv. *kraũps* "rough, coarse"; *kraũpa* "detached tree bark; knot, wart", *kr̦aũpa* "scab (of horses)") → **krùpti (kriùpti), krum̃pa** "grow scabby, become rough; grow numb, stiff", Latv. **krupt (kr̦upt), krùpu** "become scabby, rough" (also *kr̦aupt* "id.", rare) → *kr(i)ùpė*, *kr(i)ùpis* AP 2, Latv. *krupis (kr̦upis)*, *krūpis* "toad", Latv. *krups* "tiny", etc.

The meaning of Lith. *kraupùs* "frightful" (with derivatives like *kraũpti*, *-ia* "frighten; scold", *krū̃pti*, *-sta* "become afraid", *krupùs* AP 4 "fearful", etc.) is almost certainly secondary. The Latvian evidence and Lith. *krìupti*, *kr(i)ùpė* point to an original meaning "rough, coarse, scabby" (*vel sim.*). There are several reasons for assuming that *krùpti*, Latv. *krupt* is an original denominative of *kraupùs*, Latv. *kraũps*:

First, the Germanic and Slavic evidence point to a "northern" full grade adjective **kreupo-* "rough, scabby" as the core of this word family: Gmc. **hreuba-* "scabby, rough" (ON *hrjúfr*, OE *hrēof*, etc.), Sl. **krupьnъ* "coarse" (Ru. *krúpnyj*, SCr. *krúpan*, etc.), **krupà* AP *b* "grain, groats; hail, crumb" (CS *krupa*, Ru. *krupá*, SCr. *krúpa*, etc.). Zero-grade is very rare in Slavic (only Ru. dial. *krópyj*, *kropkój* "fragile, rough" < **krъpъkъ*) and probably secondary in Germanic (ON *hrufa* "rough surface, crust", OHG *(h)ruf* "scab, leprosy"). There is no evidence for a primary verb in either Germanic or Slavic.

Second, the Baltic palatalized variants Lith. *kri°*, Latv. *kr̦°* require a full-grade base **kr'aup-* < **kreup-* as their starting point (cf. Gmc. **hreuba-*)

and, at the same time, a motivation for the depalatalization to *kr(a)up-. A denominative *kru-m-p-e/o-, if sufficiently old, would provide a reasonable source. The existence of a Balto–Slavic denominative *kru-m-p-e/o- is probably supported by Latv. *krum̃pa* "fold, wrinkle", *krum̃pêt* "crinkle, wrinkle", CS *krǫpěti* "contract", Sl. *krǫpъ* "small, short; thick" (CS *krǫpъ*, Pol. *krępy*, Bulg. *krăp*).

> (15) *maulas (*maulióti(s)* "get dirty") → **mùlti, -sta** "get dirty" (rare) → *mùlinas* "dirty"; ? *mul̃vas* "clay-coloured", *mul̃vė* "mud, marsh".

These forms are dialectal and not abundantly attested (see LKŽ s.v.). Since *meul- is not an acceptable root structure, the -l- must contain suffixal material. An original adjective or noun *maulas as the source of *mùlti* is supported by *maulióti(s)* and Sl. *mulъ/*mulь "mud; murky water, rainwater" (Ru. *mul*, SCr. *mûlj*, Cz. *mula*, Pol. *muł*, etc.; see ÈSSJa 20, 185f., with references).

> (16) *mauraĩ* AP 3(1/2/4) "duckweed; silt, mud" (Latv. *maũrs* "grass, lawn") → **mùrti, -sta/mũra** "become wet; sink" (Latv. **iz-muris** "wet") → *mùras* "wet (earth)", *murùs* "id.", *mùrdyti* "plunge", *murdéti* "welter", Latv. *mùrdêt* (*mur̂dêt*, *mur̃dêt*) "well (from)".

Lith. *mauraĩ* (with transparent derivatives like adj. *máurinas/maũrinas*, *maurúotas*, coll. *maurýnas*, denom. *máurėti/mauréti*, *maũrinti*, etc.) has clear cognates in Slavic: *murъ, *mura "mud, mould" (Ru. dial. *mur* "mould", SCr. *mûr* "drift sand", *múra* "mud, clay", Cz. *mour* "soot"), *murava "meadow grass, lawn" (Ru. *muravá*, Bulg. *muráva*, Slvn. *muráva*, etc.), perhaps *murъ "dark-grey" (Ru. dial. *múryj*, Slvn. *mûr*). See ÈSSJa XX 191ff. for more material. As per S m o c z y ń s k i (2007, 378), we must be dealing with a Balto–Slavic derivative *mouH-ro- from the root *meuH- of Latv. *maût*, *maûju* "swim, submerge", Lith. *máudyti* "bath", Sl. *mýti, *mýjǫ AP *a* "wash" (OCS *myti, myjǫ*, SCr. *mìti, mìjēm*, Ru. *myt'*, *móju*, etc.).

Zero grade is rare in Baltic (it is unattested in Slavic) and clearly dependent on *mùrti, -sta* (note that forms like Lith. *murà* "mire", *mùras* "wet (earth)", *mùrinti* "make wet, make dirty", *mùrioti/murióti* "id.", Latv. *murît*, *murêt* "id.", etc. cannot of course continue something like *muH-ro-). Accordingly, an old zero-grade denominative seems unavoidable.

> (17) *slābnas, slōbnas* (Latv. *slābs* [Slavicism?], *slābans*) "weak" → **sìlpti/sil̃pti, -sta** "grow weak" → *sìlpnas/sil̃pnas* "weak" AP 1/3/4.

If this etymology of *sil̃pti*, *siĺpnas* is accepted (e.g. S m o c z y ń s k i 2007, 550) an old zero-grade denominative is the best way to motivate the assimilation –*b*– > –*p*– (*silb-ti, *silb-sta, *silb-o > *silp-ti, *silp-sta, *silb-o). Once established in the language *sìlpti/sil̃pti* gave rise to a new family of its own that eventually displaced *slõbnas* out of use. Interestingly, the process leading to *sìlpti/sil̃pti* repeated itself in newly formed denominatives: *slõbti, –sta* ~ *slópti/slõpti, –sta* (also *slàbti, slam̃ba*), Latv. *slābt/slàbt, –stu* ~ *slâpt, –stu* "grow weak". The original adjective Bl.-Sl. *slábas is preserved in Sl. *slãbъ AP *a* "weak" (OCS *slabъ*, Ru. *slábyj*, SCr. *slȁb*, etc.) and, perhaps, Latv. *slãbs* (which has often been suspected of being a Slavic borrowing). The tone of the Baltic forms is surprisingly unstable, but most of the evidence agrees with the Slavic acute.

(18) *šiáurė* AP 1/3 "North; north wind", *šiaurỹs* AP 3/4 "north wind", *šiáuras/ šiaũras* AP 3/4, *šiaurùs* AP 4 "sharp, biting, cold" (dial. *šiũras* AP 4, *šiūrùs* AP 4 "id.") → **šiùrti, šiũra/-sta** "bristle (hear); fray (clothes); get rough, rugged" → *šiùrinti* "rustle", *šiurkštùs* AP 4 "rough, coarse".

To my knowledge, this etymology of *šiùrti, šiurkštùs* is proposed here for the first time. The more or less traditional connection with *šértis, –iasi* "shed hair or feathers, molt", *šerỹs* "bristle", Sl. *sъrstъ "hair (of animals)" (e.g. F r a e n k e l LEW 995, D e r k s e n 2015, 451) is unlikely on formal grounds.

The base word *šiáurė* has well-known cognates in Sl. **sě̈verъ* AP *a* "North; north wind" (CS *sěverъ*, SCr. *sjèvēr*, Ru. *séver*, etc.) < **k̂eh₁u̯ero*–, Lat. *caurus* "north wind" (< **k̂h₁u̯ero*–). The mismatch between Lith. *šiáurė* and Sl. **sě̈verъ* is usually explained as reflecting Balto-Slavic ablaut, but this would imply a fairly unique type of paradigm. I thus prefer assuming that Bl.-Sl. **k̂éu̯ero*– was syncopated to **k̂éu̯ro*– in Baltic, whence Lith. *šiáurė* by regular sound change. If this is correct, derivatives like adj. *šiáuras/šiaurùs* must be exclusively Baltic. The meaning of the denominative *šiùrti* (be it from *šiáurė* or from adj. *šiáuras*) must rest on a development "get bitten by cold wind" → "bristle (hear), get rough (hand) out of cold" (*vel sim.*). Dialectal forms like *šiũras/šiūrùs* "sharp, biting, cold" may have been formed from *šiùrti* at an early date and reflect its original meaning.

7. As observed above (§ 6), old zero-grade denominatives are likely to end up as part of large word families. In this section I will study three cases that on a priori grounds must represent the most common constellations in which

old zero-grade denominatives can be found. In all three cases we are dealing with unremarkable derivatives from a synchronic point of view.

7.1. The original zero-grade denominative looks like a normal denominative from a zero-grade nominal that was derived from it:

(19) *kam̃pas* AP 2/4 "corner" → ***kum̃pti*, *-sta*** "become crooked, bent; bend (intr.)" → *kum̃pas* AP 4 "bent, crooked".

Lith. *kam̃pas*, *kum̃pti*, *kum̃pas* are Proto-Baltic in date: Latv. *kampis* "curved piece of wood", *kum̃pt*, *-stu* "become crooked, bent; shrivel", *kum̂ps²* "shriveled, crooked" (if not Curionianisms, as suggested by the preserved *-m-* and the intonation), OPr. *kumpint*, *kūmpinna* "push away, hinder" (implying **kumptvei* = Lith. *kum̃pti*), *etkūmps* "again, anew" (implying **et-kumpas* = Lith. *kum̃pas*). Lith. *kam̃pas* belongs with PIE **kamp-* "bend (*vel sim.*)": Gk. κάμπτω "bend, curve", κάμπη "caterpillar, silkworm" (?), Lat. *campus* "field", Gmc. **hamfa-* "mutilated, lame" (Go. *hamfs*, etc.), Sl. **kǫtъ* AP *b* "corner" (OCS *kǫtъ*, etc.) < **kamp-to-* or **kump-to-*.

From a synchronic point of view *kum̃pti* is an unremarkable derivative of *kum̃pas*. If this analysis is historically correct, it requires previous *kam̃pas* → *kum̃pas*. The derivational morphology implied here, however, is unparalleled in Baltic. Similar difficulties arise if one projects *kum̃pas* back into Indo-European or Balto-Slavic: there is no comparative evidence for an adjective **km̥p-ó-* and zero-grade derivatives are rare for PIE roots with root vowel **a*. It is therefore preferable to assume that *kum̃pas* was derived from *kum̃pti*. As for *kum̃pti*, *-sta* itself, there are two ways to generate the zero grade within Baltic. It could be an old anticausative to a lost transitive primary verb **kam̃pti*, *-ia* "bend" cognate with Gk. κάμπτω (as perhaps implicitly suggested in LIV 342). This, however, has the disadvantage of operating with unattested evidence. The second option is to assume an old zero-grade denominative of *kam̃pas* "corner", which has the advantage of operating with attested material at a relatively late date. Although this cannot be verified, Sl. **kǫtъ* could be a derivative from the Balto-Slavic denominative.

7.2. The original zero-grade denominative looks like an inchoative from a stative-durative verb that was derived from it:

(20) *míelas* AP 1/3 "dear", Latv. dial. *mìls²* "id." (< **mìels²*, Latv. *miẽlasts* "Gastmahl", *miẽluôt*, *mielât* "host, feast, feed; be dear") (also Žem. *mýlas*, Latv. *mīls*, *mĩļš*, OPr. *mijls*, *mīls* "dear") → ***(pa-)mìlti*, *-sta*** "fall in love; become dear" → *myléti*, *mýli*, Latv. *mīlêt*, *-u*, OPr. *milijt*, *milē* "love".

Synchronically *(pa-)mìlti* is an unremarkable inchoative of *mylḗti* of the type *žydḗti* "bloom" → *(pra-)žýsti* "begin to bloom". Since **mei[H]l-* is not an acceptable root structure it is clear that *mylḗti* cannot be a primary verb and that it must be somehow derived from the primary adjective *míelas/mý-las* "dear" (not "beloved"), with a perfect cognate in Sl. *mílъ AP *a* "dear" (OCS *milъ*, Ru. *mílyj*, SCr. *mìo*, etc.) < **méiH-lo-* or **miH-ló-*. Further material from the root **meiH-* (Lat. *mītis* "soft", etc.) is well known and needs not be repeated here.

Other things being equal one would simply assume that Bl. **mī́lḗti* "*be dear > love" is a denominative of the primary adjective (and hence was inflected as **mī́lḗti*, *-ḗja*) that became a primary verb and was transferred to the type *budḗti*, *bùdi*, the unmarked type for stative deverbatives. The problem in this case lies in the primary adjective, for which both **mḗila-* and **mī́la-* are well established in Baltic (Sl. *mílъ is ambiguous). Most authors simply recognize ablaut variants **mḗila-* ~ **mī́la-*. Although this cannot be excluded, it is a priory unattractive to operate with synonymous variants in prehistory. In such cases it is always advisable to at least explore the possibility that only one of them is original.

The above scenario starts from the assumption that full grade was original in the primary adjective *mḗilas, **-mī́lti* "become dear" being an old zero-grade denominative. The denominative **-mī́lti* then generated a stative verb **mī́lḗti* "be dear". The semantic shift to "to love" could have taken place either with **-mī́lti* or with **mī́lḗti*. When this happened the neo-stative **mī́lḗti* became the center of this word-family, with the result that adj. *mḗilas "dear" was remade to **mī́las* in most Baltic dialects (note that most traces of **mḗil°* in Latvian have displaced semantics and must thus be relatively old). The position of **-mī́lti* in the system was naturally reordered.

Note that it is not possible to reach an explanation of the variation **mḗila-* ~ **mī́la-* along these lines starting from the stative **mī́lḗti*, as stative denominatives in **-eh₁-i̯e/o-* do not seem to have triggered zero-grade of the root in Balto-Slavic or Indo-European.

7.3. The original zero-grade denominative looks like an anticausative from a transitive verb that was back-formed from it:

(21) Sl. *môrkъ AP *c* "darkness" (OCS *mrakъ*, SCr. *mrâk*, Ru. dial. *mórok*, etc.) → ***mìrkti**, **-sta** "grow dark" → *mérkti*, *-ia* "close one's eyes" (whence *mirksḗti*, *mìrksi*, Latv. *mir̂kšêt* "blink").

In principle, one would take Lith. *mérkti*, *-ia* and Sl. **mь̑rknǫti* AP *a* "grow dark" (OCS *-mrъknǫti*, SCr. *mȑknuti*, Ru. *mérknut'*, etc.) as *membra disjecta* of a Balto-Slavic transitive primary verb (Lith. *mérkti*) and a derived anticausative (Sl. **mь̑rknǫti*). But there are two problems with such an analysis. First, within Slavic **mь̑rknǫti* is most straightforwardly interpreted as a denominative of **môrkъ*. Second, a root "**merHk-*" is suspicious because the coda °RHT- is extremely rare among *bona fide* Indo-European verbal roots.[8] This suggests that the *-k-* contains suffixal material and that we must start from a northern Indo-European nominal **merH-ko-* (or **morH-ko-*, **mṛH-ko-*), cf. Go. *maurgins* "morning". If Sl. **mь̑rknǫti* is indeed an old (Balto-Slavic) denominative, its Baltic counterpart would be (unattested) **mìrkti*, *-sta*. Since Lith. *mérkti* cannot be a primary verb and lacks a plausible nominal derivational basis, it is reasonable to interpret it as an inner-Baltic back-formed transitive to **mìrkti*, *-sta*.

8. The examples we have seen so far have an interest for etymology and for uncovering the precise prehistory of individual word families. On occasion, however, inherited zero-grade fientive denominatives may have a certain impact on broader issues of Baltic, Balto-Slavic, even Indo-European historical linguistics. In this section I will study two such cases.

8.1. Lith. *gýti*, *gỹja* and the alleged primary verb of the PIE root "to live".

> (22) Sl. **gôjь* AP *c* (ORu. *goi* "peace, friendship", SCr. *gôj* "peace", Slvn. *gòj* "care, cultivation", Cz. *hoj* "abundance, wealth"), Lith. *gajùs* AP 4 "vital, tenacious, thriving" (if old) → **gýti, gỹja/-na/-sta** "recover; heal" (Latv. **dzît, -stu** "id") → caus. *gýdyti* "treat, heal".

As is well known, in Indo-European "alive" and "to live, to be alive" were expressed with adj. **gʷih₃uó-*, vb. **gʷíh₃ue/o-* "to live", respectively (preserved in most languages, e.g. Lat. *uīuus*, *uīuere*, etc.). The adjective **gʷih₃uó-* is directly continued in Lith. *gývas* AP 3, Latv. *dzîvs*, Sl. **žĩvъ* AP *c*. The verb "to live", on the other hand, presents a much more complicated picture. OPr. inf. *giwīt*, pres. 2 sg. *giwassi*, *gīwasi*, 3 sg. *giwa*, 1 pl. *giwammai* points to a paradigm **gíu-é-těi*, **gíu-e/o-* of the type *tekéti*, *tēka*. It may well preserve the Balto-Slavic paradigm untouched. Lith. *gyvénti*, *gyvẽna* probably depends on a Prussian-like paradigm, whatever the details might be. Latv. *dzîvuôt*, *-uôju*,

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[8] The LIV includes only seven such cases (**bʰreiHk-*, **bʰreuHg-*, **dʰeiHgʷ*, **spherh₂g-*, **sreiHg*, **stelh₂k-*, **uelh₁bʰ-*), most of them questionable for one or another reason.

on the other hand, is clearly a denominative replacing the old primary verb (in Latvian we also have *dzîvât*, *dzîvêt* and OLatv. *dzīvu*; the denominatives *gyvóti*, *gyvúoti* are in use in Lithuanian as well). For Slavic we can reconstruct a paradigm Sl. *$\check{z}\acute{i}ti$, pres. *$\check{z}\acute{i}v\varrho$, *$\check{z}ivet\check{b}$ AP *c*, aor. *$\check{z}\acute{i}x\check{b}$, *$\check{z}\hat{i}t\check{b}/\check{z}\hat{i}ve$ (OCS *žiti*, *živǫ*). As per Koch (1990, 642ff.), the stem *$\check{z}\acute{i}$- of inf. *$\check{z}\acute{i}ti$, aor. *$\check{z}\acute{i}x\check{b}$ goes back to *$\check{z}\acute{i}v$- (*$\check{z}\acute{i}vti$, *$\check{z}\acute{i}vx\check{b}$) and does not continue unextended *$g^w ih_3$-. The modern Slavic languages present more variation. East Slavic agrees with OCS *žiti*, *živǫ* (Ru. *žíť*, *živú*, *živët*, etc.). In West Slavic we have an (easily understood) *je*-present (Cz. *žíti*, *žiji*, etc.). In South Slavic we have *–ěti*, *–ěje–* in Bulg. *livéja*, Maced. *živee* "live" and *–ěti*, *–i–* in SCr. *žívjeti*, *žívīm*, Slvn. *živéti*, *živím* "live", which also have a *je*-present with a slightly different meaning in SCr. *ùžiti*, *ùžijem*, Slvn. *užíti*, *užíjem* "recover, get better". It is unclear whether South Slavic requires an old second stem in *–ěti* to be equated with OPr. inf. *giwīt* and whether the meaning "recover, get better" of SCr. *ùžiti* etc. can be equated with Lith. *gýti* (discussion in Koch, *loc. cit.*, Kølln 1977, 107ff.).

Turning back to Lith. *gýti*, *gȳja/–na/–sta* "recover; heal", it has traditionally been regarded as a primary derivative of the unextended root *$g^w\underline{i}eh_3$- (*$g^w eih_3$-). The details have needless to say never been clear and, generally speaking, Lith. *gýti* does not look so archaic. As an alternative I propose considering *gýti* an old zero-grade fientive denominative of the PIE noun *$g^w\acute{o}ih_3$-*o*- of Sl. *$g\hat{o}j\check{b}$, Ved. *gaya–*, Av. *gaiia–* m. "life, vitality, household" (with quasi regular *Schwebeablaut* of *$g^w\underline{i}eh_3$- "live"). Whether the adjective Lith. *gajùs* was derived from the noun Bl. *$gajas$ or from *gýti* is something that cannot be determined with certainty. In any case, Sl. *$g\hat{o}j\check{b}$ → *$gojiti$ "treat, heal" offers a clear parallel.

From a typological point of view the Balto–Slavic facts have two important implications: i) unlike the primary adjective, the primary verb is by no means stable; ii) the primary verb may easily be replaced with a denominative. Nominal reflexes of the unextended root *$g^w\underline{i}eh_3$- (*$g^w eih_3$-) are reasonably well-attested in the Indo-European languages. A primary verb is usually also reconstructed on the apparently impressive evidence of five branches (e.g. LIV 215f.). On closer inspection, however, the evidence is quite deceptive. Baltic (Lith. *gýti*) and Slavic (OCS *žiti*) have already been discussed. Arm. *keam* "live", I submit, goes back to *$g^w ih_3$-eh_2-$\underline{i}e/o$-, a denominative of *$g^w ih_3$-*o*-, coll. *$g^w ih_3$-$\acute{e}h_2$- (Gk. βίος, Cypr. acc. sg. ζαν "life", βία "bodily strength", Ved. *jiyā́–* "power", Um., Paelign. *bia* "fountain"; cf. Weiss 1994,

154f.), not to an old athematic present.[9] YAv. 2 sg. mid. *jiγaēša* Y. 62,10 = V. 18,27 has been much discussed (cf. K ü m m e l 2000, 628f., with references). In my view its isolation in Indo-Iranian and the fact that it occurs in a *figura etymologica* (⁺*aŋᵛha* ⁺*uruuāxš.aŋᵛha gaiia jiγaēša tå xšapanō yå juuāhi* "Mit einem Dasein, das ein frohes Dasein ist, mit Lebenskraft mögest du leben die Nächte, die du leben wirst" [trans. Kümmel]) strongly favors explaining *jiγaēša* as an *Augenblicksbildung* created within the poetic tradition (a possibility fully exploited in Vedic or Homeric studies, but generally avoided in Avestan studies). This leaves us with Gk. (Hom.) fut. βέομαι, aor. ἐβίων as the only possible witness of a PIE primary verb of the root $*g^w\underline{i}eh_3$- ($*g^weih_3$-). I have nothing to offer on the Greek evidence, but I strongly believe it is not enough for reconstructing a PIE primary verb beside the unusually well-established $*g^w\acute{\imath}h_3\underline{u}eti$.

8.2. Lith. *čiùtnas* and the development of $*\breve{e}u$ in Baltic and Balto-Slavic.

(23) *tautà* AP 4 "people, nation" (< *t'autā*) → ***čiùsti**, **čiuñta*** "get people-like, get human-like" > "get orderly, proper" (*vel sim.*) → dial. *čiutnas* AP 4 "tidy, neat", *čiutnùs* "id.", *čiutlùs* "id.", *čiùtnyti, -ija* "put in order, tidy up", *čiūtinti* "take care of, pamper", *čiùsnyti, čiùstyti* "clean out", ? *čiutéti, čiuta* "doze", *čiūtéti, čiũti* "lie/sit motionlessly, hide".

Here perhaps also belong Lith. dial. *tuténti* "take care of", *tautéti* "keep, take care of", *tùtinti* "spoil, pamper", Latv. *tutinât* "swathe, pamper", which are formally closer to *tautà* (see below), as well as dial. *(nu-)taũsti, -sta/-čia* "long for, be homesick; be sad; become weak, miserable" (with rare *nomen postverbale tautà* "nostalgia"), which looks like an independent later denominative.

This etymology of *čiùtnas* etc. goes back to K a r a l i ū n a s (1976), who presented an impressive amount of dialectal material allegedly related to *tautà*. Karaliūnas's material was subject to a detailed criticism by P e t i t (2000), who dismisses all of it (for the most part correctly, in my opinion). The notion of an archaic layer of zero-grade fientive denominatives, however, permits looking more favorably at part of Karaliūnas's material (which otherwise is left without a good etymology). The case of *nu-taũsti* "be homesick" →

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[9] It is interesting to observe that K l i n g e n s c h m i t t (1982, 85) and B a r t o n (1990-91, 45[58]) also considered deriving Arm. *keam* from $*g^wih_3$-eh_2-$\underline{i}e/o$-, but dismissed this possibility because of the questionable status of $*g^wih_3$-eh_2-$\underline{i}e/o$- as a *deverbative* formation. It is a pleasure to acknowledge that Oliver Plötz (p.c.) had also arrived at this interpretation of Arm. *keam* on different grounds.

"be sad" is particularly clear. The semantic development one has to assume for *čiùtnas* etc. is admittedly peculiar, but not absurd (note modern Lithuanian expressions like *bū́k žmogùs*! "Behave in a proper way!", literally "Be a man!"). Since *čiùtnas* etc. cannot be directly derived from *tautà*, it is reasonable to postulate an intermediate denominative **čiùsti, *čiuñta* (← **t'autā*). Forms like *tuténti* may reflect secondary influence of *tautà*.

If this is correct, it has an important implication for the double treatment of PIE **ĕu* in Baltic (Balto-Slavic), which seems to have yielded both **i̯au* (e.g. Lith. *liáudis*, OCS *ljudьje* "people" < **h₁leudʰ-i-*, cf. OHG *liut*) and **au* (e.g. Lith. *tautà*, Latv. *tàuta*, OPr. *tauto* "nation" < **teuteh₂-*, cf. Go. *þiudo*). One can distinguish two main accounts: i) the double treatment depended on the quality of the following vowel: **eu > *i̯au* before front vowels, **au* before back vowels; ii) the double treatment depended on word-position: **eu > *au* in heterosyllabic position, **i̯au* in tautosyllabic position. This is not the place to argue at length for my acceptance of the second view (see V i l l a n u e v a S v e n s s o n 2015a, with references).

Most of the examples allegedly favoring the first view can be explained in some other way (e.g. Lith. *naũjas* "new" after **noṷo- < *neṷo-*, OCS *novъ*, etc.). The major exception (and thus its main argument) has always been precisely Bl. **tautā́*. None of the solutions proposed so far to account for Bl. **tautā* for expected †*čiautà* is attractive (dossier in P e t i t 2000, 142f.). P e d e r s e n (1934–35, 151) proposed that it continues **t'autā* with assimilation of **t'...t* to **t...t*. The *ad hoc* flavor of Pedersen's account is self-evident, but assimilation and dissimilation are processes that actually take place in natural languages. Lith. *čiùtnas* etc., if correctly interpreted, now provides evidence indicating that Pedersen's assimilation (pre-Bl. **teutā́*) > **t'autā́* → **tautā́* (> Lith. *tautà*) is actually right.[10]

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[10] It may be interesting to draw attention to another potential piece of evidence concerning the development of **ĕu* in Balto-Slavic that has appeared very recently. There has been considerable discussion about the interpretation of the Old Prussian digraph <eu> (e.g. OPr. *keuto* "skin" (Elb.) ∼ Lith. *kiáutas* "shell"), the main positions being i) real /eu/ (< Bl.-Sl. **eu*), ii) a rendering of /'au/. If the account of *tautà* (OPr. *tauto*!), *čiùtnas* presented above is correct, it is evident that the idea that Old Prussian <eu> simply continues unaffected Bl.-Sl. **eu* cannot be right. As for the second option, in my view a more natural development would be something like **eu > Bl.(-Sl) *i̯au >* Bl. **'au > pre-OPr. *'eu > OPr. eu*. Positive evidence for the intermediate stage **'eu* may actually have just been found. According to Lemeškin (2014) the recently found Old

The case of *tautà* AP 4 "people, nation" → *(nu-)taũsti*, *-sta/-čia* "long for; be sad; become weak" (which is clearer and independent from that of *čiùtnas*) allows us to add a final example of a zero-grade denominative giving rise to a new word family with strongly displaced semantics:

> (24) *liáudis* AP 1 "people, nation" (Latv. *ļàudis*) → **(nu-)liũsti**, **-sta** "become sad"
> → *liūdéti*, *liũdi* "be sad", *liũdnas* AP 4 "sad".

This etymology is also due to K a r a l i ū n a s (1976, 89). It is not the standard one, which rather connects *liũdnas* to Sl. **lûdъ* AP *c* "crazy", Go. *liuts* "hypocritical" (e.g. F r a e n k e l LEW 378f., S m o c z y ń s k i 2007, 360f., D e r k s e n 2015, 289). Although in principle perfectly possible, note that it operates with (unfortunately fairly typical) semantic freedom. The case of *(nu-)liũsti* → *liūdéti* (synchronically *(nu-)liũsti* is an unremarkable inchoative of *liūdéti*) is the same as that of *(pa-)mìlti* → *myléti*, see above § 7.2.

9. The conclusions of this article are easily summarized. The evidence discussed in § 5-8, I believe, shows that Baltic did indeed inherit zero-grade fientive denominatives from northern Indo-European. Some examples seem to reach Balto-Slavic antiquity (e.g. Lith. *grùbti*, *grum̃ba* ∼ Sl. **grǫbъ*, etc.), but, interestingly, others suggest that the principle was kept alive, at least marginally, into Proto-East Baltic (e.g. *bjũrti*, *bjũra/bjùrsta*, *lýsti*, *-sta*, etc.). I would like to stress that my survey is not exhaustive and that the corpus will no doubt be enlarged in the future.

Baltic thus joins North Germanic and Slavic in using a present type **li-m-p-é-ti* for fientive denominatives, with regular zero grade of the root even when derived from full-grade nominals. This is an important and often overlooked argument in favor of the very existence of a common northern Indo-European class of anticausative-inchoative verbs.

As for Baltic itself, I hope to have shown that the framework developed in this article has a considerable interest for research on the historical composition of its lexicon. It may lead to new etymologies (e.g. *šiùrti*, *šiũra/-sta*, *šiurkštùs*), and to a better grounding of already proposed ones (e.g. Sl. **slábъ* ∼ *sìlpti/siĨpti*, *-sta*, *sìlpnas/siĨpnas*). It may help in clarifying the precise relationship between Baltic and Slavic word families (e.g. Sl. **môrkъ*, **mь́rknǫti* ∼

Prussian Trace of Crete (1422) contains the word (acc. sg.) *pieuſſen* = Elb. *peuse* "pine" (Lith. *pušìs*, Gk. πεύκη, OHG *fiuhta*). It is tempting to see in *pieuſſen* the missing link between Bl. **p'aus-* and OPr. *peuse*.

mérkti, *–ia*), and the precise prehistory of complex Baltic word families (e.g. *míelas*/*mýlas* ~ *myléti*, *mýli* ~ *–mìlti*, *–sta*). Finally, it may even have an impact on broader issues of Baltic and Balto-Slavic historical grammar (e.g. *tautà* ~ *čiùtnas*).

NULINIO LAIPSNIO DENOMINATYVINIAI INTARPINIAI IR *-sta* PREZENSAI BALTŲ KALBOSE

S a n t r a u k a

Šiaurės indoeuropiečių kalbose (germanų, baltų, slavų) buvo gausi antikauzatyvinių-inchoatyvinių veiksmažodžių klasė. Vienas pagrindinių šios klasės darybos tipų buvo denominatyviniai fientyvai, padaryti iš būdvardžių ir, rečiau, iš daiktavardžių bei turintys reikšmę „tapti X". Senojoje islandų ir senojoje slavų kalbose tokie denominatyvai turi nulinį šaknies vokalizmo laipsnį net tada, kai jie yra padaryti iš pamatinio laipsnio vardažodžių, pvz., s. isl. *blautr* "silpnas" → *blotna* "susilpti", s. sl. *gluxъ* "kurčias" → *o-glъxnǫti* "apkursti". Tai yra akivaizdus archaizmas, o gotų ir baltų kalbose vartojama apofoninė invariacija, lengvai suprantama kaip naujadaras. Straipsnyje pristatoma daugiau nei 20 pavyzdžių ir rodoma, kad baltų kalbos paveldėjo darybos principą, pagal kurį intarpiniai ir *-sta* prezensai įgydavo nulinį laipsnį net tada, kai jie buvo daromi iš pamatinio laipsnio vardažodžių (pvz., lie. *bjaũrus*→ *su-bjùrti*). Taip pat aptariama, kaip toks archajiškas darybos principas galėtų praversti nagrinėjant baltų kalbų žodžių etimologiją bei baltų kalbų žodžių šeimų priešistorę ir struktūrą.

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Miguel VILLANUEVA SVENSSON
Vilniaus universitetas
Universiteto g. 5
LT-01513 Vilnius
Lithuania
[*miguel.villanueva@flf.vu.lt*]