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## THE LATIN FIFTH DECLENSION AND THE BALTIC $-\bar{e}$ -STEMS<sup>1</sup>

**Abstract.** The purpose of this article is to present the history of the comparison made by scholars between the Latin fifth declension and the Baltic  $-\bar{e}$ -stems and to decide whether both of those formations could go back to a common Indo-European source. It is claimed that the  $*-eh_1-$  nominal stems did not exist as such in the proto-language and that both the Baltic  $-\bar{e}$ -stems and the Latin fifth declension are secondary developments of other Indo-European formations.

**Keywords:** Baltic; Latin; Indo-European; historical morphology; nominal derivation;  $-\bar{e}$ -stems; fifth declension.

1. The comparison of the Latin fifth declension (*diēs* “day”, *rēs* “thing”, *māteriēs* “matter”) with the Baltic  $-\bar{e}$ -stems (Lithuanian *žėmė* “earth”, *vīlkė* “she-wolf”, Old Prussian *semmē* “earth”) has a long history<sup>2</sup>. Both Latin and the Baltic languages possess what may be synchronically termed  $-\bar{e}$ -stems. However, their origin remains disputable and was discussed by many scholars in the past. I will briefly summarize here the more recent theories concerning their comparison and try to evaluate them in the light of modern comparative grammar.

2. The opinions of scholars concerning the origin of the Latin fifth declension and the Baltic  $-\bar{e}$ -stems can be divided into two groups. The

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<sup>1</sup> This article is an improved and expanded version of a part of my Ph.D. dissertation on the origin of the Latin  $-iēs/-ia$  inflection defended in 2013 at the Jagiellonian University in Kraków and prepared under the supervision of Professor Wojciech Smoczyński. He was the person who introduced me to Indo-European comparative linguistics in 2005 and I hope he will find the present article worthy of his teaching. I am also grateful for comments and inspiration to Alan Nussbaum (Cornell University, Ithaca NY) and for additional comments to Michael Weiss (Cornell University, Ithaca NY) and Ronald Kim (AMU Poznań/KU Prague). Needless to add, all errors, omissions and mistakes are mine.

<sup>2</sup> The earliest theories are presented by Pedersen 1926, 3–7.

first group assumes the existence of \*-ē-stems (\*-eh<sub>1</sub>-stems in laryngealistic terms) in Proto-Indo-European and therefore considers the Latin fifth declension (along with the subtype of the third declension – *vatēs* “seer”, *caedēs* “killing”) and the Baltic -ē-stems as a continuation of those stems (Brugmann 1888; 1906; Lindsay 1894; Pedersen 1926; Monteil 1970; Beekes 1985; Schrijver 1991; Kortlandt 1997; Beekes 2011, 199). The second group does not accept the existence of the proto-language \*-ē-stems and therefore assumes that the Latin fifth declension and the Baltic -ē-inflection are secondary formations, resulting from different sound changes and subsequent analogical reshapings (Sommer 1914a, 394–402; Steinbauer apud Mayrhofer 1986, 133–134; Klingenschmitt 1992, 127–135; Nussbaum 1999; Piwowarczyk 2016). What is more, most scholars seem to agree that the two basic words which belong to the Latin fifth declension – *diēs*, -ēī “day” and *rēs*, -ēī “thing” – are not original \*-ē-stems<sup>3</sup> and, furthermore, there are not many direct cognates in forms of this inflection between Latin and Lithuanian (the allegedly common origin of the forms *lāpė* “fox”, *žvākė* “candle” and Latin *volpēs* “fox” and *facēs* “torch” seems to be doubtful). In the following pages I will first present and try to evaluate the opinions of the first group, i.e. of the scholars who assume the existence of the \*-eh<sub>1</sub>-stems in the proto-language.

3. Brugmann in the first edition of his *Grundriss* (1888, 313–314) reconstructed a suffix which could appear in several ablaut grades: \*-ī-/-iġē-/-ijġē-. The basis for such a reconstruction was, among others, the ablaut in the optative: *s-iē-s* : *s-i-mus*. He then assumed that the Latin -iē-s inflection and the Lithuanian -(i)ė inflection originated in the generalization of the suffix form -iġē- (-ijġē-). In comparing the Latin and Lithuanian forms, he assumed that the Lithuanian *žėm-ė* “earth” originated from the proto-form \*žem-iġē. Furthermore, Brugmann reconstructed the ending of the accusative singular as \*-ī-m which was then remade to \*-ij-ṃ from which Latin -*iem*, Old Indic -*iyam* and Greek -*ian* evolved (with the analogical -*m* and -*n* in Old Indic and Greek to the other accusative singular forms).

4. In the second edition of the *Grundriss* Brugmann admits that the whole question of \*-ī-/-iġē-stems in the proto-language is unclear but reconstructs \*-ē-stems alongside the \*-iġē-stems for Proto-Indo-European (Brugmann

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<sup>3</sup> Though Beekes (1985, 80–81) is of the opinion that Latin *rēs* was originally an \*-eh<sub>1</sub>-stem. His view was discussed in Piwowarczyk 2017.

1906, 220–223). His reconstruction is based on the Latin fifth declension, the third declension forms of the *caedēs* “killing”, *sēdēs* “seat” type and the Baltic  $\bar{e}$ -stems. Brugmann also cites verbal forms like Greek  $k^hrē$  in order to legitimize his claim on the existence of the  $*\bar{e}$ -stems in the proto-language. Greek  $k^hrē$  has been recently explained as an old instrumental in  $*\bar{e}h_1$  (cf. Balles 2006, 258–260).

5. Lindsay (1894, 344–347) considers it possible that the Latin  $\bar{e}$ -stems are connected with the Baltic  $\bar{e}$ -stems. He thus assumes that Lithuanian *žēm-ė* comes from  $*žem-i\bar{e}$ . He also finds it likely that the explanation of Latin  $\bar{i}\bar{e}$ - might be phonetic – i.e. a development of  $\bar{i}\bar{a}$ - to  $\bar{i}\bar{e}$ - as found in Vulgar Latin: *Iānuarius* > *Iēnuarius* (cf. Weiss 2009, 143; a similar hypothesis was put forward by Thurneysen 1921, 200–202) or Latin *heriem* (Gellius XIII, 23, 2) which corresponds to Oscan *heriam*. However, this has been cogently explained by Nussbaum (1976, 250–252) to be a loanword from Oscan, secondarily transferred into the  $\bar{i}\bar{e}s$  inflection (cf. also Untermann 2000, 321). Apart from this, it would be the only example of such a change in early Latin. Additionally, Lindsay points out that the Latin *caedēs*, *sēdēs* “third declension” type can originate from the plural as many of those nouns ending in  $\bar{e}s$  were originally used in the plural (e.g. *aedēs*).

6. Pedersen (1926, 14–18), following Brugmann (1906, 220–223) claims that the PIE  $*(\bar{i})\bar{e}$ -stems (modern reconstruction  $*(\bar{i})eh_1-$ ) lie at the basis of the whole Latin fifth declension. He finds it impossible to assume that the  $\bar{i}\bar{e}s$  abstracts, the most numerous forms of the Latin fifth declension, would be modelled on the few inherited words like *diēs*, *rēs*, *spēs*, *fidēs* and finds no basis for the reconstruction of the acc. sg. as  $*\bar{i}\bar{e}\bar{m}$  in the Indo-European morphology<sup>4</sup>. Thus he considers the possibility of the origin of this inflection from the acc. sg.  $\bar{i}\bar{e}m$  highly unlikely (this hypothesis was put forward by Osthoff 1884, 338 and followed by Sommer 1914a, 394–395). Instead he assumes a separate stem for the proto-language based on the Latin material (the entire Latin fifth declension, third declension forms

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<sup>4</sup> And indeed within Proto-Indo-European we would not generally expect such a form or remodelling. But in the particular branches it can be expected that the consonant-stem ending would be added to some other stems (cf. the remodeling of the *vrkīh-* formation accusative in  $*\bar{i}\bar{m}$  to  $\bar{i}yam$  in Vedic and the reinterpretation of the Latin accusative singular as a weak case with the insertion of the productive consonant-stem ending in  $\bar{e}m$  (<  $*\bar{e}\bar{m}$ )).

of the *caedēs* “killing” and *vatēs* “seer” type) and the Baltic  $\bar{e}$ -stems which he considers to be partly inherited formations from the proto-language<sup>5</sup>. Furthermore, Pedersen assumes that the inherited  $-i\bar{e}s$  formations in Latin mix with the  $-ia$  ones because of the identical meaning and closeness of both suffixes (cf. Pedersen 1926, 81).

7. Since most of the Latin and the Baltic  $\bar{e}$ -stems can be explained without invoking any  $*-h_1$ -stems, there seems to be no other comparative evidence for the  $*-eh_1$ - nominal suffix. The cases like Lithuanian *žėmė* “earth” have been explained as going back to  $*žemijā$ , that is original feminine adjective “earthly” to the word “earth” (cf. Kuryłowicz 1966; Petit 2004, 65–66; Smoczyński 2007, 777–778). As far as Pedersen’s critique of the analogical reshaping is concerned – I do not think his criticism is well-founded since both words *diēs*, *rēs* are extremely frequent in Latin and can easily be used as a model of analogy. Pedersen’s hypothesis is also criticized by Gerschner (2002, 151) who points out that the fifth declension nouns in general have a defective paradigm with the exception of *diēs* and *rēs*. Despite all those facts, the hypothesis of Pedersen was taken up by Beekes (1985, 37–38; 2011, 199), Schrijver (1991, 379–387) and Kortlandt (1997)<sup>6</sup>.

8. Monteil (1970, 205–208) reconstructs the  $*-jeh_1$ -stems for the proto-language, the function of which should be that of forming of the abstract nouns (parallel to the  $*-ieh_2$ -stems: as in Latin *superbia*, *avaritia*). He also mentions that the same  $-i\bar{e}s$  suffix was used in the  $-t$ -stems to form abstracts – thus from *minutus* → *minut-iēs*, *durus* → *duri-tiēs*, *canus* → *canit-iēs*. From those formations on, the  $-itiēs$  suffix was abstracted. As for the origin of the  $-i\bar{e}s$ / $-ia$  inflection, Monteil assumes that the suffix  $*-jeh_1$  appeared (in

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<sup>5</sup> Pedersen (1926, 10–12) also investigates the origin of the Baltic  $\bar{e}$ -preterite formation which is a complex problem in itself with little bearing on the question of the origin of the nominal  $\bar{e}$ -stems apart from providing a parallel for the  $*-ija > -\bar{e}$  development in Baltic. For the literature on the problem see: Pedersen 1921, 65–68; Kuryłowicz 1966; Stang 1966, 374–391; Kuryłowicz 1968, 318–322; Hock 1972a; 1972b and, more recently, Schmalstieg 2000, 276–283; Petit 2004, 292–300; Villanueva Svensson 2005; Ostrowski 2006, 38–40 and Petit 2010, 249–254 among others. The first ideas on the origin of the  $\bar{e}$ -preterite in Baltic go back to Schleicher (1856, 66f., 157, 224f.), Kurschat (1876, 34, 172f., 280f.) and Wiedemann (1891, 181–183).

<sup>6</sup> The existence of the long  $*-\bar{e}$ -stems (or  $*-eh_1$ -stems) in the proto-language is also assumed, despite Sommer’s study, by Otrębski (1965, 44), Endzelīns (1971, 146–149) and Stang (1966, 201–205).

parallel fashion to  $*-\text{ĭeh}_2$ ) in zero grade in the nominative as  $*-\text{ih}_1$ , and that this should give *-ia* in Latin (as, in his opinion,  $*-\text{ih}_2$  does). However, the sequence  $*-\text{ih}_2$  gives  $-\bar{i}$  in Latin, as in most Indo-European languages, (e.g. *quī*, *quīcum*, cf. Weiss 2009, 251; Schrijver 1991, 230–232) and therefore there is no need to assume such a development for  $*-\text{ih}_1$  either<sup>7</sup>. Moreover, reconstructing  $*-\text{ĭeh}_1$ -stems on the basis of only the Latin material is against the rules of the comparative method.

9. Beekes (1985, 37–38) considers the Latin fifth declension as remnant of the inherited  $*-\text{eh}_1$ -stems, along the Baltic  $-\bar{e}$ -stems, following the ideas of Pedersen (1926). He further assumes that the  $*\text{h}_1$ -stems were part of the elaborate system of accent-ablaut paradigms the details of which he sketches in his monograph. First, he assumes, following a personal comment of Kortlandt, that the Tocharian nominative singular of the  $\bar{a}$ -stems goes back to  $*-\text{h}_2$  (Beekes 1985, 20). Combining that with the view that the Latin nominative singular of the  $\bar{a}$ -stems in short *-a*, in Beekes' view, lacks a convincing explanation, he assumes that the inflection of the Proto-Indo-European  $*\bar{a}$ -stems was hysterodynamic and the long  $*\bar{a}$  was introduced in languages other than Tocharian and Latin from the accusative (Beekes 1985, 34–35). Following the view of Pedersen (1926, 14–18), he then assumes that there was a  $*\text{h}_1$ -inflection in the proto-language with the nominative

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<sup>7</sup> The only Indo-European languages where one can find traces that the  $*-\text{iH}$  (at least in the case of  $*-\text{ih}_1$  and  $*-\text{ih}_2$ ) sequence developed into  $*-\text{iV}$ , instead of the expected  $*-\bar{i}$ , are Tocharian, Greek and probably Armenian. In Greek this process is regular and takes place probably in the case of all three laryngeals (though there are no sound cases attested with  $*-\text{ih}_3$ ) with the result depending on the quality of the laryngeal, e.g. (after Weiss 2009, 52):

nom./acc. du.  $*\text{h}_3\text{ok}^{\text{h}}-\text{ih}_1$  “eyes” >  $*\text{ok}^{\text{h}}\text{je}$  > Homeric Greek *ósse* but OCS *oči*  
 nom. sg. fem. pres. part.  $*\text{b}^{\text{h}}\text{er-ont-ih}_2$  “carrying” >  $*\text{pherontjā}$  >  $*\text{pheronsa}$  > Greek *phérousa* but Vedic *bhárantī*  
 nominative singular  $*\text{potn-ih}_2$  “lady” >  $*\text{potnjā}$  > Greek *pótνια* but Vedic *pátnī*  
 (for details on the development in Greek see also Peters 1980, 127–220 and Beekes 1969, 155–161)

In Tocharian, on the other hand, the process seems to be less clear (cf. Kim 2014). There are clear cases where the treatment is similar to the one in Greek: PIE  $*\text{b}^{\text{h}}\text{er-ont-ih}_2$  > Proto-Tocharian  $*\text{pərənt}^{\text{h}}\text{a}$  > Tocharian B *prentsa* “pregnant” (cf. Kim 2014, 20) but, as far as the case of  $*-\text{ih}_1$  is concerned, the solution seems more problematic. The  $*-\text{ih}_1$  sequence seems to show  $*-\text{ĭe}$  in word-final position in Tocharian but  $*-\bar{i}$  in the optative suffix (cf. Kim 2014, ibidem).

singular in  $*-h_1$  parallel to the  $*-h_2$  nominative singular of the  $*eh_2$ -stems. The nominative singular would have been then  $*-ih_1$  and the oblique  $*-i\grave{e}h_1$ . The nominative in  $*-\bar{i}$  would then be remodeled to  $*-ia$  “after the example of  $\bar{i} < *ih_2$ , which was replaced by  $-ia$  on the basis of the oblique cases (...). The nominative in  $-\bar{e}s$ , then, was probably formed on the basis of the accusative  $-\bar{e}m$  (from  $-eh_1m$ )” (Beekes 1985, 38). As mentioned before in the discussion of Pedersen’s hypothesis, the very existence of the  $*h_1$ -stems in the proto-language is dubious and does not have to be invoked in order to explain the Latin fifth declension or the Baltic  $-\bar{e}$ -stems.

10. Schrijver (1991, 379–387) explains the origin of the  $-i\bar{e}s$  formations by assuming the existence of two independent paradigms in the proto-language: the  $*-i\grave{e}h_1$ -stems and  $*-i\grave{e}h_2$ -stems. As was already mentioned above, the existence of the nominal suffix in  $*-\bar{e}-$  ( $< *eh_1$ ) in the proto-language does not seem to have any comparative evidence. Additionally, Schrijver assumes a highly unlikely phonological change from  $*-ih_2m$  to  $-iem$  violating Stang’s law<sup>8</sup>.

11. Furthermore, Schrijver (1991, 371), following Pedersen (1926, 58) and recently also Beekes (2011, 199) compared the paradigm of *vatēs* to Vedic *pánthās* and reconstructed the hysterodynamic  $*h_1$ -stem for both of those words, assuming that the  $*h_1$  also caused aspiration in Indo-Iranian in the position  $*Th_1V$ , alongside the universally accepted  $*Th_2V$ . His argument in favor of assuming the aspiration caused also by  $*h_1$  is the ending of the second plural in Vedic  $-thaḥ$ , which, according to him, goes back to  $*-th_1es$ . However, this assumption is not commonly accepted. Most examples point to the fact that  $*h_2$  in the position after a voiceless stop and before a vowel causes aspiration of the preceding stop (cf. Mayrhofer 1986, 136–137; 2005, 110–119). The aspiration in Vedic can easily be explained as analogical to the second person dual without invoking  $*-h_1$  (the ending of the second person dual is usually reconstructed as  $*-th_2es$ , thus giving the aspirate in Vedic  $-thaḥ$  regularly according to the accepted sound law, Weiss 2009, 386).<sup>9</sup>

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<sup>8</sup> Recently Pronk (2016) tried to disprove Stang’s law and claimed that the length in the acc. sg.  $*d\grave{i}em$  was due to monosyllabic lengthening. However, the assumption of monosyllabic lengthening in Proto-Indo-European is far from universally accepted.

<sup>9</sup> For a close typological parallel one may note that in the Bavarian dialects of Germany the pronouns of the plural were replaced by those characteristic of the dual (cf. Howe 1996, 279–280).

12. Additionally, neither Pedersen (1926) nor Schrijver (1991, 379–387) and neither Beekes (1985, 37–38) nor Kortlandt (1997) explain the function of the \*h<sub>1</sub> suffix. I presume that they think that it basically copies the function of the \*h<sub>2</sub>- suffix. If that is so, one cannot escape thinking that this means basically multiplying entities and projecting transponants into the proto-language.

13. Schrijver maintains that Lithuanian *lāpė* “fox” is cognate with Latin *volpēs* “fox”. However, Bammesberger (1970) has shown that these forms cannot be compared with each other, cf. also Stang 1966, 201–205; Bammesberger 1973, 31–39; Klingenschmitt 1992, 114ff.; Petit 2004, 188–190.

14. As for the explanation of the Latin *caedēs* type, it seems that some *ēs*-abstracts are plurals that have become singulars (cf. already Lindsay 1894, 346; Weiss 2009, 244) and others have been secondarily characterized with the *-ēs* nominative singular ending, like *uerrēs* or *canēs*, original \*n-stems (cf. Klingenschmitt 1992, 114–115). To the former category belong also compounds of the type *conflūgēs* “meeting place of rivers” (plural only, cf. OLD, 402) or *ambāgēs* (plural early “circumlocutions”, some singular forms later “detour, circuit”, cf. OLD, 113). If those forms were plurals, this implies that e.g. *prōpāgēs* “stock” (found only in singular, cf. OLD, 1489) may have had the same history, but the plural forms died out early. For these there is no reason to assume original *i*-stems. This might point to the fact that also simplex forms like *sēdēs* “seat” (cf. OLD, 1725) might be old plurals that have partly become singulars too. Pointing in this direction might be the fact that *sēdēs* even in its plural meaning is very reminiscent of *pluralia tantum* with singular meanings like *insidiae* (from the same root) “an ambush”, *exsequiae* “a funeral rite” or *suppetiae* “help, aid”. An item that is an *i*-stem simplex and has the same development of a plural becoming singular is also *aedēs* “house” (in the plural), “room” (in the singular). The root \*sed- made a root noun in the proto-language and that means that if a root noun abstract \*sed- “a sitting” was originally used as a *pluralia tantum* abstract (cf. *insidiae*, *ambāgēs*, *aedēs*) with a singular meaning, it would have had a consonant-stem inflection in Latin (i.e. *sēdēs*, *-um*)<sup>10</sup>. This could be the origin of the consonant

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<sup>10</sup> Note also Klingenschmitt’s derivation of *sēdēs* as an verbal abstract of the *caedēs*-type from the secondary root \*sēd (Klingenschmitt 1992, 117).

stems *sēdēs*, *-um* and therefore *caedēs*, *-um*. Once the original *i*-stem *uātēs* (cf. Old Irish *fáith*<sup>11</sup>) was associated in a single morphological class with the new singular paradigm of the old pluralia tantum consonant-stem *sēdēs* (and *caedēs*) type, the consonant-stem inflection was spread to *uātēs*, producing genitive plural *uātum*<sup>12</sup>. This would explain this type of inflection without invoking the *\*h*<sub>1</sub>-suffix and thus multiplying entities for the proto-language.

15. Schrijver also invokes the Celtic evidence in support of the *\*h*<sub>1</sub>-stems and claims that Old Irish *fáith* “seer” is not to be taken as directly cognate with Latin *vātēs* and thus is not evidence for an original *i*-stem. He thinks that the Old Irish nouns of the *meit*-type (*meit* “quantity”), usually considered to be a mix of the *\*i*-stems and *\*ih*<sub>2</sub>-stems, are in fact reflexes of an *\*eh*<sub>1</sub>-paradigm copying exactly that one of *\*eh*<sub>2</sub>-stems. He then assumes that the Old Irish word *fáith* “seer”, which was the only masculine noun among the *\*h*<sub>1</sub>-stems, entered this type of inflection later. Schrijver also mentions the view of Thurneysen (1946, 186 *infra*) and writes that “as far as the old *\*ih*<sub>2</sub>-stems were confused in late OIr., there was confusion with *ā*- or *iā*-stems, not with *i*-stems” (Schrijver 1991, 388). However, as pointed out by Irslinger (2002, 421<sup>415</sup>), Thurneysen writes that the confusion between the classes spreads in all directions. She also points out that Schrijver’s theory does not explain the function of the *\*h*<sub>1</sub>-suffix. If it behaves exactly like *\*h*<sub>2</sub>, has the same paradigm and thus same functions, then we should remind ourselves of Ockham’s razor.

16. Kortlandt (1997), following the work of Pedersen (1926), Beekes (1985) and Schrijver (1991), assumes the existence of *\*eh*<sub>1</sub>-stems in the proto-language and traces the origins of the Lithuanian forms *žvākė* “candle”, *mentė* and *girė* “forest” to those stems adding the comparative evidence in the form of Latin *facēs* and Vedic *mánthās* and *girís*. The first forms *žvākė* and *facēs* were already deemed dubious. The comparison of *mentė* and *mánthās* requires the assumption that *\*Th*<sub>1</sub>V caused aspiration of the preceding stop which is not universally accepted. Finally, *girė*, compared with Vedic *girís* is a variant of *girià* (cf. Smoczyński 2007, 182). The existence of *-ia* variants to forms in *-ė* could point to their origin in *\*-ija* (cf. Nagy 1970, 56–58

<sup>11</sup> On the etymology of this form see most recently Weiss 2013, 341<sup>10</sup>. Cf. also Irslinger 2002, 99–100 for comments on the earlier literature.

<sup>12</sup> I am grateful to Alan Nussbaum (Cornell University, Ithaca NY) for turning my attention to this fact.

and especially Otrębski 1965, 72 for the list of the doublets). Kortlandt furthermore assumes that the Baltic  $-\bar{e}$ - and  $-\bar{i}/\bar{i}\bar{a}$ -stems are continuations of the Proto-Indo-European: hysterodynamic  $*eh_1$ -stems, hysterodynamic  $*-uh_1$ -stems and  $*-uh_2$ -stems, proterodynamic  $*-uh_1$  and  $*-uh_2$ -stems, hysterodynamic  $*-ih_1$  and  $*-ih_2$ -stems, proterodynamic  $*-ih_1$  and  $*-ih_2$ -stems. I think this is unnecessary since the  $*h_1$ -stems mostly duplicate the functions of the  $*h_2$ -stems.

17. I will now turn to presenting and evaluating the opinions of the second group of scholars, i.e. those assuming that the Latin fifth declension and the Baltic  $\bar{e}$ -stems originate in secondary developments of different proto-language formations and thus should not be reconstructed as  $*eh_1$ -stems in Proto-Indo-European. The newest hypotheses on the origin of the Latin  $-i\bar{e}s/-ia$  inflection were presented and evaluated elsewhere (cf. Piwońarczyk 2016). Here I will briefly sketch their assumptions as far as the comparison with the Baltic  $-\bar{e}$ -stems is concerned.

18. Sommer (1914a, 394–402) considers the whole Latin fifth declension to be composed of heterogenous elements. Thus, he mentions the  $-i\bar{e}s$ -stems, the “Hauptkontingent” of the fifth declension as he calls it, which he compares with the Lithuanian  $-\bar{e}$ -stems (Lithuanian *žẽmė* “earth”) and reconstructs as  $*-i\bar{e}$ -stems, following Brugmann (1906, 220–223). As Lommel did before (Lommel 1912, 67–70), Sommer also compares such formations to the Old Indic *devī*-stems but he points out that the long  $*-i\bar{e}$ -stem does not appear in Greek which usually preserves the Proto-Indo-European vocalism intact. Following this assumption, Sommer investigated in detail the origin of the Baltic nominal  $\bar{e}$ -stems in a large monograph (Sommer 1914b). There he noted that the Baltic  $\bar{e}$ -stems do not have even one plausible correspondence in the Latin  $-i\bar{e}s$  formations (Sommer 1914b, 13): cases of Lithuanian *žvākė* “candle” and Latin *facēs* (attested only in Paulus’ summary of Festus)<sup>13</sup> are problematic since for *facēs* the meaning itself is uncertain<sup>14</sup> (cf. also recently de Vaan 2008, 207–208). Additionally, the function of the suffix  $-\bar{e}$  and  $-i\bar{e}s$  would be the same only in several forms where they derive abstracts

<sup>13</sup> Earlier the comparison was made between *faciēs* “face” and *žvākė* “candle”. This is untenable due to the meaning of the two words (cf. the criticism of Osthoff 1905, 64–65<sup>1</sup>).

<sup>14</sup> Paulus (ex Fest.) gives the passage as: “*faces antiqui dicebant, ut fides*” (77.19.), cf. Lindsay 1913.

(e.g. Lithuanian *mėilė* “love”, Latin *rabiēs* “frenzy”). Normally, Lithuanian *-ė* functions as a motion suffix (Lithuanian *vilkas* “wolf” : *vilkė* “she-wolf”, cf. Otrębski 1956, 32) whereas Latin *-iēs* is a suffix used for deriving abstracts from verbal or nominal formations. Since there is hardly any evidence from other Indo-European languages for an *\*-ē* motion suffix, it seems that the only option would be to derive those *ē*-stems from the *\*-ijā* feminine formations (Sommer 1914b, 10–11)<sup>15</sup>. Thus Sommer tried to demonstrate that the Baltic *-ē*-stems go back not to Proto-Indo-European *\*-iē-* but to *\*-ijā-* which subsequently contracted and gave Lithuanian *-ė*.

19. If the Baltic *-ē*-stems can be explained without invoking the reconstruction of the *\*-ē*-stems in the proto-language, it is thinkable that the Latin *-iēs* formations also have an inner-Latin beginning. Sommer thus considers it credible, following Osthoff (1884, 338), that the origin of the Latin *-iēs* abstracts might lie in the accusative singular of the *devī-*inflection which, according to him, would become *\*-iam* and then *\*-iem* by vowel weakening (cf. *\*cornican* > *cornicen*) and thus could have been the beginning of this type of inflection on analogy to the inherited and productive stem of *rēs* (Sommer 1914a, 394–395). However, he assumes a development of *\*-iəm* to *\*-iam* as regular and this is very unlikely since the regular outcome of the *\*-iəm* sequence (or *\*-iHm* as we would reconstruct it today) in Italic, according to Stang’s Law (Stang 1965), would be *\*-īm*. It would be thinkable that the *\*-iHm* sequence did not undergo Stang’s Law and developed, according to the syllabification rule (cf. Schindler 1977, 56–57), into *\*-iHm̩* > *\*-iHem* > *\*-iem* (or perhaps *\*-ih₂m̩* > *\*-ih₂em* > *\*-iam* > *\*-iem* in the case of the second laryngeal), but this would require an explanation why Stang’s Law did not operate as it does regularly in case of *\*-ih₁m* in the optative formations (e.g. *\*-C-ih₁-m* > *\*-ī-m* > Latin *edim*, cf. Weiss 2009, 417) or *\*-eh₂m* in the accusative singular of the *ā*-stems (e.g. *\*-eh₂-m* > *\*-ām* > Latin *-am*, cf. Weiss 2009, 233). However, Sommer also mentions the possibility that the *devī-*stem accusative would be remade into *\*-ijm̩*, that is the productive consonant-stem accusative ending would be introduced into the *devī-*inflection (cf. a similar suggestion already by Brugmann, *ibidem*) which in turn would give Latin *-iem* and thus form the base for the new inflection. Sommer stresses his viewpoint that the Latin fifth

<sup>15</sup> It was already mentioned by Hirt (1912, 3) and Lommel (1912, 70–72) that the Baltic *-ē*-stems *deivė* and *vilkė* have counterparts in Vedic *devī* and *orkīḥi*.

delension should not be compared with the Baltic  $-\bar{e}$ -stems (going back to  $*-ij\bar{a}$ ) in the comments to his handbook of Latin phonology and morphology (cf. Sommer 1914c, 112–113).

20. Kuryłowicz (1966, 13–20) claims that the Baltic  $-\bar{e}$ -stems originate from feminine gender substantivized adjectives with the suffix  $*-ij\bar{a}$ . Thus Latin *facēs* cannot be directly compared with Lithuanian *žvākė* because it was extended with  $*-\bar{e}s-$  whereas *žvākė* was extended with  $*-ij\bar{a}$ , being the feminine form of the original adjective in  $*-(i)\bar{i}o$ . It was then morphologically extended to the other cases. While discussing the Baltic  $-\bar{e}$ -stems, Kuryłowicz also mentions a solution to the origin of the Latin  $-iēs/-ia$  inflection (Kuryłowicz 1966, 19–20). In his opinion, the origin of those formations lies in the morphological recharacterization of the motivated forms. He assumes the existence of root nouns in Latin (characterized with the  $-t-$  suffix as in *sacerdōtis*) but he points out that the two most important forms belonging to the Latin “fifth declension”, i.e. *diēs* and *rēs*, are not root nouns. *Diēs* and *rēs* develop the accusative singular  $*diēm$  and  $*rēm$  and an analogical new nominative singular in *diēs* and *rēs* respectively. Then Kuryłowicz assumes that the relation between the accusative singular in  $-em$  (shortened before /m/ in Auslaut) and nominative plural in  $-\bar{e}s$  offers a possibility for a renewal of original root nouns with accusative singular in  $-em$  and feminine formations with nominative singular in  $-\bar{i}$  (*victrix*) and accusative singular in  $-iem$  ( $< *ij\bar{m}$ ). However, as Kuryłowicz notices, root nouns of the type *dux*, *ducem* did not get a renewed nominative in  $\daggerducēs$ . Only forms like *sēdēs*, *caedēs*, *compāgēs*, *labēs* got the new nominative in  $-\bar{e}s$ . Kuryłowicz thus considers those formations to be root nouns and assumes that the new nominative singular in  $-\bar{e}s$  was introduced into them because they were motivated by the existence of the corresponding verbs (*sedeō*, *caedō*). Thus forms like *caedēs* were originally root nouns in  $*kaid-s$ ,  $*kaid-em$  and because of the similarity in their accusative singular ( $-em$ ) to the forms of the “fifth declension” they were recharacterized with the new nominative in  $-\bar{e}s$ , characteristic of the “fifth declension” (but this happened only in the forms where the derivational motivation was visible). As far as the isolated, non-motivated cases are concerned, Kuryłowicz thought that perhaps there the  $-\bar{e}s$  enlargement was mechanical: as in *facēs* “torch” (to *fax*), *famēs* “hunger” and *pubēs* “youth”. The differentiation between the old root nouns and the “fifth declension” nouns is in the fact that in the old root nouns (of the *sēdēs*-type,

according to Kuryłowicz) the long  $-\bar{e}$  appears only in the nominative and ablative singular whereas in the “fifth declension” it is present in all cases.

21. Additionally, Kuryłowicz thinks that the nouns of the type of *uatēs* “seer” which do not have the motivating verb could enter this type through a differentiation between the abstract noun  $*u\bar{o}di-$  (German *Wut*) and the personal noun (*uatēs* “seer”). The word is obviously an original  $-i$ -stem as Kuryłowicz notices (cf. Old Irish *fáith*). Subsequently the nominative in  $-\bar{e}s$  would be introduced to the old feminine  $*-\bar{i}$ -stems (that the  $*-\bar{i}$  was once their nominative is witnessed by, for example, *victrīx*) which had a connection to the core of the “fifth declension” nouns through their accusative in  $-iem$  ( $< *iim$ ). Thus the new nominative was introduced in the forms like *scabiēs*, *faciēs* where the existence of the  $-\bar{e}s$  was also motivated (by the corresponding verbs). It also entered the  $-itiēs$  inflection. The original oblique cases of the  $*-\bar{i}$  feminines were in  $*-\bar{i}ā$  (as in Vedic *devī*, *devyāḥ*) and could have been remodeled to the forms with  $-\bar{e}-$  (as was in *faciēs*). The competition between  $-\bar{e}-$  and  $-\bar{a}-$  was visible until Romance where the forms in  $-\bar{a}-$  were generalized (*facia*, *glacia*, *rabia*). Thus, in Kuryłowicz’s words “le motif décisif de l’introduction de  $-\bar{e}-$  au nom. a été le caractère motivé des formations respectives” (Kuryłowicz 1966, 20). However, forms like *caedēs*, *sēdēs* are likely to be plurals used in the singular (thus already Lindsay 1894, 344–347) and most of the words in  $-\bar{e}s$  seem to be  $i$ -stems originally. Besides, not all of the forms belonging to the  $-iēs/-ia$  inflection seem to be motivated (cf. *glaciēs*). Nevertheless, it is worth noting that also Kuryłowicz points towards the paradigm of *diēs* and *rēs* as the starting point for the creation of this type of inflection (already mentioned by Osthoff 1884, 338).

22. Steinbauer (apud Mayrhofer 1986, 133–134) reconstructs a hysterokinetic  $*-\bar{i}eh_2$ -stem in the proto-language which also does not show any comparative evidence.

23. Klingenschmitt (1992, 127–135) looks for the origin of this formation in the proto-language *devī* (the *aciēs* type with the  $-iē$  suffix throughout) and *vṛkīḥ* formations (the *māteriēs* type with the  $-iē/-ia$  variation). He assumes that the nominative in  $-iēs$  is originally an analogical formation to the accusative in  $-iem$  on the model of *uolpēs* : *uolpem* “fox”. Such a model of analogical reshaping seems highly unlikely as it should also generate the nominative in  $*-\bar{e}s$  to the formations of the type: *rēx*, *rēgem* or *pēs*, *pedem*.

24. Nussbaum (1999), while discussing the reflexes of the word  $*d̥ieus$  in Latin, assumes that the Latin formations in  $-iēs$  originate in the partial

identification of the Proto-Italic *deví*, *vṛkíh* and \*-ijā paradigms. The basis for the new nominative in *-iēs* is the accusative in *-iem* created by introducing the productive ending of the consonant stems in *-em* to the *vṛkíh* paradigm (similarly to what happened in Old Indic). The analogical model for the creation of the new nominative in *-iēs* is the commonly used noun for “day”: *diēs* (contrary to the noun *uolpēs* “fox”, assumed by Klingenschmitt as being the model for the reshaping).

25. The solution on the origin of this type of inflection in Latin was recently presented by Piwowarczyk (2016). I will only summarize the main outlines of that solution here. The origin of this type of inflection is traced back to the Proto-Italic stage where the continuants of the Proto-Indo-European *deví*, *vṛkíh* and \*-ijā- paradigms intermixed with each other. Afterwards, the *deví* and *vṛkíh* paradigms merged into a single one with a new instrumental-ablative in \*-ijēd created on the model of the consonant-stems, followed by an analogical creation of the nominative in \*-ijēs on the model of \*dijēd : \*dijēs.

26. Additionally, Villanueva Svensson (2011) argued recently that the sound change \*-ijā > \*-ē̃ (professed already by Sommer 1914b) is correct because it explains both the *-ē*-stems and the *-ē*-preterite in Baltic<sup>16</sup>. This phonetic process seems to be supported by prosody (cf. also Villanueva Svensson 2014)<sup>17</sup>. It seems thus that the Baltic *-ē*-stems are reflexes of either such a sound change and its subsequent generalization or substantivization of earlier adjectives to masculine forms. Their origin does not seem to be the same as the Latin *-iēs*/*-ia* formations and thus both of these formations cannot be used as evidence for the reconstruction of \*-(i)eh<sub>1</sub>-stems in the Indo-European proto-language.

27. To conclude, although there is only indirect evidence for the secondary nature of both the Latin and the Baltic *-ē*-stems, it seems that the assumption of original nominal \*-eh<sub>1</sub>-stems in the proto-language is less economical as those stems would simply copy the function of the \*-eh<sub>2</sub>-stems and thus the secondary origin of both formations seems more likely.

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<sup>16</sup> Don Ringe (University of Pennsylvania, Philadelphia) informs me that Warren Cowgill already around 1980 claimed that the East Baltic \*ē̃ arose regularly from \*ijā. I am grateful to Ronald Kim (Adam Mickiewicz University Poznań / Charles University Prague) for turning my attention to this fact.

<sup>17</sup> I am grateful to an anonymous reviewer for turning my attention to this fact.

# LOTYNŲ KALBOS PENKTOJI LINKSNIUOTĖ IR BALTŲ KALBŲ *-ē-* KAMIENAI

## *Santrauka*

Straipsnio tikslas – pristatyti lotynų 5 linksniuotės ir baltų kalbų *-ē-* kamienų lyginimo istorijos apžvalgą bei nuspręsti, ar abu šie dariniai gali būti kilę iš bendro indoeuropietiško šaltinio. Teigiama, kad *\*-eh<sub>1</sub>-* vardažodžių kamienai prokalbėje neegzistavę, o tiek baltų *-ē-* kamienas, tiek lotynų penktoji linksniuotė laikytini kitų ide. darinių antrinės raidos rezultatu.

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