

Marek MAJER  
Harvard University

## LITH. *vedq̃* = SL. *\*vedq̃tb*: THE ACCENTUATION OF THE NOM. PL. OF ACTIVE PARTICIPLES AS FURTHER PROOF OF FINITE ORIGIN\*

**Abstract.** The aberrant form of the nom. pl. of Balt. active participles (Lith. *vedq̃* etc.) has been aptly explained (Cowgill, partly anticipated by Endzelīns) as the intrusion of the old finite 3. pl. (< PIE *\*wed<sup>h</sup>onti* etc.) into the nominal paradigm of the participle. However, it has been unnoticed so far that the accentuation of the form – synchronically completely isolated and unexpected, as the only end-stressed athematic nom. pl. – is also explained by, and therefore corroborates, this theory. The accent corresponds exactly to the PBSl. reconstruction 3. pl. pres. *\*wedanti* (conceivably, although less plausibly, PBSl. *\*wedānti*) pointed to by Proto-Slavic *\*vedq̃tb*.

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### 1. The morphology of the Balt. active participles

#### 1.1. The Lith. paradigms

As is well known, the otherwise unproblematic Balt. reflexes of the inherited active participles (< PIE *\*(o/e)nt<sup>-1</sup>* and *\*-wos-/\*-us<sup>-2</sup>*) present complica-

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<sup>1</sup> The familiar PIE ptcp. pres. act. (Lat. *ferēns*, gen. *ferentis* ‘carrying’) see Meier-Brügger 2010, 318. The form in *\*-nt-* famously displays a partly divergent meaning in Anatolian, yielding a passive participle if the verb is transitive, which blurs the picture in reconstructed PIE (recent analyses: Melchert forthc.; Oettinger forthc.). However, there are no good reasons to think this is in any way connected with the problems dealt with here (cf. fn. 20). On the shape of the marker when affixed to thematic stems see fn. 21.

<sup>2</sup> The PIE ptcp. perf. act. (Ved. *cakṛvān*, gen. *cakrúṣas* ‘having done’) see Meier-Brügger 2010, 319. For a recent analysis including possible derivational prehistory,

tions in certain forms of the nominative case. Since it is Lith. that offers the clearest and most archaic picture here, Lith. forms will henceforth be used as reflecting the presumable PBalt. stage.<sup>3</sup> In standard Lith., the active participles display the following inflection, as illustrated by the verb *vèsti* ‘to lead’ (Ulvydas et al. 1971, 311–319; Senn 1966, 173–178; Otrębski 1956, 246–258; non-feminine nominative forms bolded):<sup>4</sup>

	ptcp. pres. act.	ptcp. pret. act.
masc.	nom. sg. <b><i>vedq̄s / vėdantis</i></b>	nom. sg. <b><i>vėdęs</i></b>
	acc. sg. <i>vėdanti</i>	acc. sg. <i>vėdusi</i>
	gen. sg. <i>vėdančio</i>	gen. sg. <i>vėdusio</i>
	(etc.) ( <i>vėdančia-</i> )	(etc.) ( <i>vėdusia-</i> )
	nom. pl. <b><i>vedq̄ / vėdantys</i></b>	nom. pl. <b><i>vėdę</i></b>
	gen. pl. <i>vėdančių</i>	gen. pl. <i>vėdusių</i>
(etc.) ( <i>vėdančia-</i> )	(etc.) ( <i>vėdusia-</i> )	
neutr.	<b><i>vedq̄</i></b>	<b><i>vėdę</i></b>
fem.	nom. sg. <i>vėdanti</i>	nom. sg. <i>vėdusi</i>
	gen. sg. <i>vėdančios</i>	gen. sg. <i>vėdusios</i>
	(etc.) ( <i>vėdančio-</i> )	(etc.) ( <i>vėdusio-</i> )
	nom. pl. <i>vėdančios</i>	nom. pl. <i>vėdusios</i>
	gen. pl. <i>vėdančių</i>	gen. pl. <i>vėdusių</i>
	(etc.) ( <i>vėdančio-</i> )	(etc.) ( <i>vėdusio-</i> )

cf. R a u (forthc.). Note that the form persists in Balt. and Sl. as the ptcp. pret. act. despite the demise of the IE synthetic perfect as a separate category. The distinctive reduplicated stem that characterized the perfect in PIE was lost in the process; the ptcp. pret. act. is normally formed from the general stem of the pret. (aor.) in both Balt. and Sl.

<sup>3</sup> Within the range of phenomena discussed here, Latv. and OPr. have forms that are either directly superimposable on the Lith. or clearly innovated – they do not offer any evidence that might lead to the reconstruction of a different PBalt. picture than the one inferred from Lith. (S t a n g 1966, 263–267); this also applies to the nom. sg. masc. of the ptcp. pret. act. in OPr., which is unmistakably a contamination of the inherited counterpart of Lith. *-ęs* and the oblique morpheme *-us-*. For the accentological problem that will be the main focus of this study, the evidence outside of Lith. (mainly from OPr.; R i n k e v i č i u s 2009, 183–186) is scarce and only of ancillary relevance.

<sup>4</sup> The Lith. future participle and past frequentative participle are excluded here, as their inflection is fully modelled on the pres. and pret. participles, respectively.

The twofold nom. masc. forms of the ptcp. pres. act. – sg. ‘short’ *vedq̄s*, ‘long’<sup>5</sup> *vėdantis*, pl. ‘short’ *vedq̄*, ‘long’ *vėdantys* – are not free variants, but have a specific distribution (Senn 1966, 174; Otrębski 1956, 250). The ‘short’ forms in *-qs*, *-q* are normally used predicatively, especially for the purposes of the relative mood<sup>6</sup> construction: *sakoma, kad Jūraitis nieko nesakqs* = ‘it is said that J. is not saying anything’,<sup>7</sup> while the ‘long’ *-antis*, *-antys* forms are used attributively: *vandenį nešantis vyras* = ‘a man carrying water’.

The ptcp. pret. act., on the other hand, does not display any comparable opposition of ‘long’ and ‘short’ variants; its corresponding forms always end in *-ęs*, *-ę* regardless of function.<sup>8</sup>

Importantly, in some varieties of Lith. the ‘short’ nom. pl. forms in *-q* (pres.) and *-ę* (pret.) are not limited to the masc., but also span the fem. (Stang 1966, 264; Kazlauskas 1966, 73). In view of this, the forms will henceforth be glossed nom. pl., without specification of gender.

As in adjectives and pronouns, the surviving neuter only retains one case-number form, i.e. the old nom./acc. sg. neutr. (e.g. *gėra* ‘good’, *vėlū* ‘late’). There being no neuter nouns, these forms are of course never used in attributive function, but they fulfil certain important and pragmatically salient grammatical roles, e.g. in impersonal constructions (Ulvydas et al. 1976, 319–321, 610; Senn 1966, 172–173).

## 1.2. The morphological anomalies

The forms of the above paradigms for the most part display the predictable and expected development of the PIE participles in *\*-nt-* and *\*-us-* (Stang 1966, 263–267). The feminine, derived with the suffix *\*-ī ~ \*-iā- < PIE \*-ih<sub>2</sub> ~ \*-yeh<sub>2</sub>-*, presents a fundamentally unchanged picture. In the masc. and neutr.,

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<sup>5</sup> It is, of course, important to distinguish these ‘long’ forms (sg. *vėdantis*, pl. *vėdantys*) from the compound/definite inflection (which in standard is Lith. applied to the ‘long’ forms only: sg. *vedantysis*, pl. *vėdantieji*, Senn 1966, 176; not so, however, in the older language – Otrębski 1956, 252: *sukq̄sis* etc.).

<sup>6</sup> Expressed through the use of the nom. of the participle instead of the corresponding finite forms. On the relative mood see Ulvydas et al. 1976, 317–318; Senn 1966, 369–71; Petit 1999, 121–126.

<sup>7</sup> All English translations and glosses mine. Examples in this paragraph adapted from Ulvydas et al. 1976; Senn 1966.

<sup>8</sup> However, forms of the type nom. pl. masc. *vėdusys* are known from dialects; cf. also def. *vėdusie-ji*. This is also the state in the other Balt. languages (Stang 1966, 265–267).

the chief innovations are the loss of suffixal ablaut and the widespread introduction of thematic inflection through the extension by the suffix *\*-ja-*. The nom. and acc. sg., as well as the nom. pl. forms are the only ones retaining consonantal inflection.<sup>9</sup>

Some of these latter forms are also derived straightforwardly from their PIE counterparts. In the ptcp. pres. act., the ‘short’ nom. sg. masc. *vedḳs* continues PIE *\*wed<sup>h</sup>-o-nt-s* directly, and its ‘long’ pendant *vēdantis* is merely a modernization of this form, exchanging the archaic consonantal inflection for a more productive model (Stang 1966, 264). The same also applies to the ‘long’ nom. pl. masc. *vēdantys*, which is a synchronically regular form, replacing a more archaic *\*vedantes* < PIE *\*wed<sup>h</sup>-o-nt-es* in accordance with the usual scheme (Stang 1966, 265). Finally, the neutr. *vedḳ* is likewise an unproblematic reflex of PIE *\*wed<sup>h</sup>-o-nt-Ø*.

Nonetheless, as was already mentioned in §1.1 above, three nom. forms have a puzzling shape. In the ptcp. pres. act., the ‘short’ nom. pl. *vedḳ* cannot be derived from PIE *\*wed<sup>h</sup>-o-nt-es* in any simple fashion, although the form at least bears some surface similarity to the rest of the paradigm, apparently displaying the formant *\*-nt-*. In the ptcp. pret. act., both nominative forms (sg. *vēdḑs* and pl. *vēdḑ*) as well as the neutr. (*vēdḑ*) are even more perplexing, ostensibly not containing the formant *\*-us-* at all, but instead pointing to something like *\*-en(t)-*.

### 1.3. Explanations for the anomalies

These facts have attracted the attention of researchers for a long time, and a wide range of theories have been proposed to elucidate them. Thorough overviews of the existing explanations are available e.g. in Stang 1966, 263–265; Cowgill 1970, 25–28; Schmalstieg 2000, 322–342. The most widespread traditional approach to the nom. pl. *vedḳ* has been to derive it from an old neuter, either the singular PIE *\*wed<sup>h</sup>ont* (note that the form is synchronically entirely identical with the neutr. *vedḳ*) or a plural/collective (Post-)PIE *\*wed<sup>h</sup>ōnt*, *\*wed<sup>h</sup>onth<sub>2</sub>* etc. A number of scenarios have been posited for this purported intrusion of the neuter here, usually linked in some way with the purely predicative and non-attributive use of this form, as well as the fact that it may serve as both the masc. and the fem. (see §1.1 above). The *-ḑs* of *vēdḑs* has sometimes been explained as a distortion of the old *\*-wōs* due to assorted factors; the likewise unexpected nasal element in the Ved. cognate

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<sup>9</sup> For the sake of simplicity, dual forms are omitted here.

of this form, *-vān*, has sometimes been compared. Others have argued for the derivation from *\*-ē-nt-s*, incorporating the pret. morpheme *\*-ē-* and the marker of the ptc. pres. act. under various configurations. For details and yet other proposals, see the references indicated above.

Although a combination of some of the above scenarios would have to be tentatively accepted if no better solution were available, it has to be admitted that they are rather unconvincing. The hypothesis invoking the neuter has gained such currency that it has perhaps fallen out of sight how challenging it is to motivate the change involved. Why would the speakers of Balt., having the well-formed, inherited nom. pl. masc. and nom. pl. fem. at their disposal, be compelled to use a neuter form instead?<sup>10</sup>

However, a different hypothesis explaining the anomalies of these paradigms is clearly the most persuasive. The argument – whose vital element was first envisaged by Endzelīns (1913–1914), but which was fully developed by Cowgill (1970) – runs as follows.

#### 1.4. The solution involving the 3. pl. finite form

A celebrated characteristic innovation of Balt. finite verbal inflection is that the third-person singular, dual and plural are all expressed by one form, etymologically derivable from the PIE singular. It has traditionally been assumed that the missing dual and plural forms vanished without a trace, ousted by the sg. at some point in the prehistory of Balt. The cause for this has often been sought – perhaps rightly so, though the matter remains rather obscure – in the extension of the scope of the PIE ‘τὰ ζῷα τρέχει’ rule (calling for sg. agreement on the verb for neutr. pl. subjects)<sup>11</sup> to subjects of all grammatical genders, or in the elaboration of other morphosyntactic phenomena in PIE or (pre-) PBalt. imaginably opening the possibility of such an innovation.<sup>12</sup>

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<sup>10</sup> An alternative to positing this baffling innovation is to assume a remarkably archaic retention of an alleged PIE pattern (thus e.g. Schmidt 1883, 362–364 and followers), which is, of course, extremely costly. Cf. also fn. 19, 20.

<sup>11</sup> The phenomenon is often illustrated with the Gr. phrases τὰ ζῷα τρέχει ‘the.NEUTR.PL animals.NEUTR.PL run.3.SG’ = ‘the animals are running’, or πάντα ῥεῖ ‘all.NEUTR.PL flow.3.SG’ = ‘all things flow’. Also valid for OAv. and Hitt., the rule is connected with the fact that the only ‘plurals’ available for neutr. nouns in PIE were in fact (singular) collectives. See Meier-Brügger 2010, 335–336.

<sup>12</sup> See the overview of proposed explanations in Schmalstieg 2000, 51–53, where, however, the author leans toward the hardly compelling position according to which the

Endzelīns (1913–1914, 124–125), however, speculated that the missing 3. pl. may in fact survive up to the present day in the guise of a form homonymous with the ‘short’ nom. pl. form of the active participle. The formal match is certainly feasible (*vedq̄* can be derived from *\*wed<sup>h</sup>onti* if the familiar *i*-apocope<sup>13</sup> is taken into account). Specifically, Endzelīns argued that in constructions like *nēra kas rašq* ‘there is nothing to write’, *nēra kas pjaunq* ‘there is nothing to mow’ the occurrence of a nom. pl. of the participle is not easy to motivate, while the form could be explained as an old finite 3. pl. (as if Lat. *non est quod scribant* ‘there is nothing which they might write’). In this case, the only further necessary assumption would be that an older relative *\*ka* < *\*k<sup>w</sup>od* was replaced by the formally parsable (though syntactically incongruous) *kas*.

The particulars of Endzelīns’ interpretation may be debated,<sup>14</sup> but the core insight identifying the homophony of the relevant forms (and its potential consequences) was groundbreaking. A similar line of reasoning was – apparently independently – followed by Cowgill (1970). Rightly dismissing the theories invoking the neuter, he instead turns to the fact that the relative mood – as mentioned above (§1.1) – is signaled in (E)Balt.<sup>15</sup> through the use of nom. forms of participles in lieu of finite verbs (*jis vedqs* ‘he reportedly leads’, *jie vedq* ‘they reportedly lead’, *jis vedq̄s* ‘he reportedly led’, *jie vedq̄* ‘they reportedly led’), normally found in subordinate clauses. In view of this, Cowgill envisages an earlier stage in the development of Balt. where the inherited 3. pl. forms were still in frequent competition with nom. pl. participle forms in subordinate clauses. The old 3. pl. forms were finally lost, but only in main clauses. In the relative mood, these old 3. pl. forms (present *-q* < *\*-ant(i)*, preterite *-q̄* < *\*-ē-nt(i)*)<sup>16</sup> were reinterpreted as belonging to

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non-differentiation of the sg., du. and pl. in the 3. person is a striking archaism *vis-à-vis* the other branches of IE. Another explanation assuming an impressive retention, though of a different kind, is that of Kortlandt 1979, 65, arguing for the direct reflex of a thematic 3. pl. pres. *\*-o* posited by him for PIE.

<sup>13</sup> Further on the *i*-apocope cf. §3.3 below.

<sup>14</sup> The syntax of these constructions can be explained in a number of different ways, cf. e.g. Ambrazas apud Schmalstieg 2000, 332.

<sup>15</sup> The phenomenon is absent from the OPr. texts, which, as is expressly stated by Stang (1966, 411) and Petit (1999, 125), is hardly probative given the nature of the corpus.

<sup>16</sup> In principle, of course, an old primary ending would be unexpected in a preterital

the participle paradigm and almost completely integrated into it (although the difference between predicative *vedq̄s*, *vedq̄* and attributive/substantivized *vēdantis*, *vēdantys* persists). Cowgill plausibly argues (citing Calvert Watkins as the author of the insight) that the change can be attributed to influence from Finnic, a statement which has fared well in language contact literature, cf. THOMASON, KAUFMAN 1988, 241. Some additional typological and theoretical background for the innovation is briefly discussed by LOWE (2015, 303).

In the past participle, the nom. sg. *vēdęs* was subsequently easily generated by a well-grounded analogy,<sup>17</sup> based on the nom. pl. *vēdę* and the present participle forms (*vedq̄* : *vedq̄s* :: *vēdę* : X; X = *vēdęs*). A similar analogical origin can be assumed for the neuter form of the past participle, *vēdę* (*vedq̄s*, *vedq̄* :: *vēdęs* : X; X = *vēdę*).<sup>18</sup>

There can be little doubt that Cowgill was right. Although in principle the intrusion of a finite form into the paradigm of the participle could appear to

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form, but the possible historical rearrangements (see fn. 47) make matters uncertain here, cf. Lith. dial. *biti* ‘was’ (STANG 1966, 410). As for the original length of the \*-ē-, since the developments under discussion postdate the PBSL rise of acuteness, there is no need to be concerned about the treatment of the long vowel in the position before \*-nt-. (The Balt. preterite morpheme is consistently non-acute.) Importantly, the formation originally proper to those verbs that built their preterite with \*-ē- was later generalized across the lexicon. That a counterpart of -ęs, -ę based on the pret. in \*-ā- would have led to the widespread falling together of the ptcp. pret. act. and ptcp. pres. act. (\*-ā-nt- and \*-a-nt- both > -ant-) was noticed, and plausibly identified as the reason for the generalization of \*-ē-nt- (with the unambiguously preterital \*-ē-), independently of Cowgill’s solution (e.g. OTRĘBSKI 1956, 257). Cowgill himself endorses the motivation as well (p. 33).

<sup>17</sup> The number of analogical operations required for Cowgill’s theory is lower (or at least not higher) than that necessary for the competing explanations; besides, they are limited to easily comprehensible, proportional analogies.

<sup>18</sup> A scenario linking the nom. pl. of the active participles and the relative mood was also later envisaged by ENDZELĪNS himself (1957, 161), albeit a fundamentally different one: Endzelīns, believing in a neuter origin of the nom. pl. (only ascribing finite provenance to the special constructions of the type *nēra kas rašq̄*), stated that the merger of the old finite 3. pl. and the nom. pl. ptcp. (of neuter origin) would have led to the loss of contrast between the indicative and the relative mood in such forms, which in turn would have provided the principal reason for the demise of the 3. pl. ending in Balt. Cf. also fn. 12.

be a bold stipulation, the process is in fact exceptionally well-motivated and framed within a concrete, logical scenario. It is the only available explanation that pinpoints a tangible incentive for the change. This is in stark contrast to the alternatives mentioned before in §1.3 above, which resort to the neuter<sup>19</sup> or various remodelings of the inherited ending \*-wōs, and which cannot be convincingly linked to other properties of Balt. grammar.<sup>20</sup>

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<sup>19</sup> This statement can, incidentally, be applied not only to the problem at hand, but also to the other areas of historical Balt. morphology where the ultimately moribund neuters and collectives have traditionally been marshalled in to explain developments outside of their proper domain (usually masc. paradigms). One such case is the conundrum of the thematic nom. pl. masc. (Lith. *-ie/-i* vs. *-ai*), where a neuter plural/collective ending \*-eh<sub>2</sub>+i or the like has often been assumed to have played a role (Nieminen 1922; Stang 1966, 184; Kortlandt 1993 etc.). In fact, the assumptions required to solve it starting from the expected PIE \*-oy (cf. Jasanoff 2016; Villanueva Svensson 2016 for competing scenarios of this kind) are significantly less costly than the presumed direct continuation of the neuter, and can in addition largely be motivated independently. For certain other morphosyntactic phenomena rooted in PIE and with clear parallels in other IE languages, the assumption of the neuter having played an important part is perhaps more plausible, cf. §1.4.

<sup>20</sup> Endzelīns' (and indirectly Cowgill's) ideas have been criticized by Kortlandt (most recently 2011, 39–40), who writes that “this view cannot be correct because there is an apophonic difference between the participial forms *ēsq* ‘being’, *ējq* ‘going’ (...), with *o*-vocalism from the thematic flexion (...) and the original 3rd pl. forms \**sentī*, \**ienti*, which would yield \**señt*, \**jeñt* and perhaps merge with the gerund (Daukša) *sañt*, *eñt*”. It certainly does appear that the nom. pl. *ēsq* (similarly *ējq*) replaced an older form expected from the original 3. pl. form \**sent(i)* (\**ient(i)*). This, however, amounts to a trivial analogical development (based on sg. *ēsqs*) in view of how aberrant a nom. pl. ptcp. the inherited reflex of \**sent(i)* would have been (similarly Zinkevičius 1981, 146). In short, *ēsq* (itself morphologically renewed, as Kortlandt himself admits) does not have much bearing on the theory as a whole. The detailed reconstruction of a PBSl. pattern of root and suffix ablaut in this participle (including the unattested nom. sg. \**esints*), inferred by Kortlandt (1990, 71; 2009b, 62) from OPr. and OLith. patterns of alternations, is unverifiable, especially when one sets it apart from the particular framework of PIE ablaut (Beekes 1985, recently also Kloekhorst 2013) of which it is asserted to be a remnant. Kortlandt subscribes to the theory deriving the nom. pl. from an old neuter, specifically claiming that the usage has its roots in a PIE ergative construction; as for the *nēra kas rašq* construction mentioned by Endzelīns, he sees in it the original passive reading of the participle in \*-nt- as reflected in Anatolian (Kortlandt 1979, 65). However, both these interpretations ascribe profoundly archaic PIE retentions to Balt. syntax and morphosyntax, which are otherwise quite far removed from those of



## 1.5. Interim conclusion on morphological prehistory

The segmental derivation of the Balt. forms can therefore be considered clear, amounting to a combination of the obvious explanation for the ‘easy’ examples and Cowgill’s solution for the ‘difficult’ ones:

### ptcp. pres. act.:

nom. sg. masc.	<i>vedq̄s</i>	<	PIE nom. sg. masc. participle <i>*wed<sup>h</sup>-o-nt-s</i>
nom. sg. neutr.	<i>vedq̄</i>	<	PIE nom. sg. neutr. participle <i>*wed<sup>h</sup>-o-nt-Ø</i> <sup>21</sup>
nom. pl.	<i>vedq̄</i>	<	PIE 3. pl. pres. act. <i>*wed<sup>h</sup>-o-nt(i)</i>

### ptcp. pret. act.:

nom. sg. masc.	<i>vēdęs</i>		analogical to pres. <i>vedq̄s</i>
nom. sg. neutr.	<i>vēdę</i>		analogical to pres. <i>vedq̄</i>
nom. pl.	<i>vēdę</i>	<	Balt. 3. pl. pret. <i>*ved-ē-nt(i)</i>

## 2. Accentuation

### 2.1. Preliminaries

The above is a quite satisfying picture, in which the seemingly confusing data fit into place. One issue, however, still remains unaccounted for, viz. the behavior of the accent in those stems which – like *vēda* – belong to the mobile accent paradigm. Put differently, nothing has been said so far on the position of stress in forms such as nom. sg. *vedq̄s*, nom. pl. *vedq̄*, which contrast with barytone accentuation in most of the remaining forms.

As is well known, although all finite verb forms in Lith. are in principle accented identically (disregarding surface rules such as Saussure’s Law), two

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the most archaic IE languages (understandably so, given that the attestation gap spans thousands of years). According to the view adopted here, to the extent that inner-Balt. or inner-BSl. explanations are available, they should clearly be preferred; this is one of the merits of Cowgill’s idea.

<sup>21</sup> It must be noted that in Cowgill’s view, a form like *\*wed<sup>h</sup>ont* would have been a Post-PIE replacement of actual PIE *\*wed<sup>h</sup>nt*, since he adheres to the opinion that even thematic verbs built an athematic present participle with an ablauting suffix (on the strength of Lat. *ferēns* = Ved. oblique *bhārat-*, suggesting *\*-nt-* rather than invariable *\*-o-nt-*). How this minor crux of PIE morphology (cf. Meier-Brügger 2010, 319) is to be resolved is of little relevance for the Balt. facts; however, the arguments in favor of an original invariable *\*-o-nt-* seem more cogent, and so the reconstruction of the neuter as PIE *\*wed<sup>h</sup>-o-nt-Ø* will be preferred here (cf. Gr. φέρον, OAv. *yasō.xīān*).

accentual classes can nevertheless be distinguished across the lexicon: an immobile and a mobile one (e.g. Stang 1966, 449–451; Olander 2009, 104, 109).<sup>22</sup> The principal diagnostic for determining whether a verb is mobile or immobile in Lith. is the behavior of the stress in prefixed forms: in immobile verbs, it invariably remains on the root (3. pres. *šaukia*, prefixed *pašaukia*),<sup>23</sup> while in mobile verbs, it moves to the prefix immediately preceding the root (3. pres. *vėda*, prefixed *išvėda*). A secondary diagnostic is provided by the accentuation of the very participle form under discussion in this study. In immobile verbs, all case forms of the ptcp. pres. act. are accented in a uniform fashion (nom. sg. *šaukiąs*, acc. sg. *šaukiantį*, nom. pl. *šaukią*); in mobile verbs, the nom. sg. masc., the nom. pl. as well as the neutr. are end-stressed, while the remaining forms are recessive, yielding a mobile paradigm (nom. sg. *vedąs*, acc. sg. *vedantį*, nom. pl. *vedą*; nom. sg. *išvedąs*, acc. sg. *išvedantį*, nom. pl. *išvedą*).<sup>24</sup>

There is largely a consensus that – in spite of the nontrivial surface differences – the (vestige of the) mobile verbal accentuation in Lith. is historically identifiable with the mobile verbal paradigm in PSl.,<sup>25</sup> and that

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<sup>22</sup> Cf. the excellent overview by Rinkevičius (2015, 43–47), who, however, maintains a suspicious stance regarding the synchronic division of Lith. verbs into ‘mobile’ and ‘immobile’, especially the stronger versions of the claim.

<sup>23</sup> The prefix *pér-* is always stressed irrespective of the accentual properties of the root.

<sup>24</sup> In fact, the correlation of the two diagnostics is a rule prescribed for standard Lith.; cf. Stundžia (2009, 175): “Bendrinei kalbai tradiciškai rekomenduojama Kazimiero Būgos suformuluota taisyklė, siejanti kalbamųjų trumpųjų formų kirčio vietą su atitinkamų priešdėlinių veiksmažodžių kirčiavimu. Jeigu veiksmažodžio kirtis atitraukiamas į priešdėlį (išskyrus *per-*), kirčiuojama trumposios formos galūnė (...)” The actual picture, including in the dialects, is significantly more complicated and variable, with numerous morphological factors at work (cf. Rinkevičius 2009, 41; 2015, 43–47; Kazlauskas 1968, 74 etc.); on the other hand, further diagnostics are available in the domain of deverbal derivatives, especially in OLith. (see e.g. Skardžius 1935, 65–75; Dybo 2007, 52–55). However, the question which particular classes of Lith. verbs are (or were) mobile, how mobility arose (see also fn. 28), and how it is expressed via the synchronic diagnostics is not of crucial interest here. Rather, the object of investigation is the makeup of the mobile accentual paradigm of the active participles, particularly the diachronic source of its end-accented nom. pl.; see further below in the text.

<sup>25</sup> In PSl., unlike in Lith., the distinction between immobile and mobile verbs is very salient and clearly observed also in the basic finite paradigms; see for example Stang

there obtains a genetic correspondence between the mobile and immobile classes in both branches: for example, the PSl. verb *\*vesti* is mobile just like its Lith. cognate *vèsti* because the parent PBSl. verb was mobile too. Thus, it is generally assumed that the two accentual classes of verbs – immobile and mobile – go back to a PBSl. stage, although the dichotomy is formulated in quite divergent ways in the various frameworks (e.g. Dybo 2000, 329–331; 2007; Olander 2009, 153–154; Jasanoff 2008, 355–356, etc.). This closely parallels the situation in the nominal system, where there was likewise an overarching opposition of immobile and mobile stems at the PBSl. level (Dybo 1981, 191–196; Olander 2009: 152–153, Jasanoff 2008, 343–344, etc.).<sup>26</sup> Finally, most scholars today agree that the peculiar kind of accentual mobility observed both in nouns and in verbs in BSl. (even in thematic stems, essentially accentually immobile in the other IE languages) represents an innovation *vis-à-vis* the PIE state, perhaps indeed one of the most striking common developments setting BSl. apart from the rest of the family.<sup>27</sup> The development of accentual mobility in BSl. has been the object of numerous studies resulting in fairly disparate theories.<sup>28</sup>

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1965, 107–109; Lehfeldt 2009, 55–66 for the illustration of the key facts. Within Balt., the mobile verbal paradigm has also left traces in both Latv. and OPr., see fn. 51.

<sup>26</sup>Of the major current frameworks, the emphasis on a pivotal dichotomy between immobility and mobility at the PBSl. level is perhaps the least pronounced in recent Leiden accentology; cf. eg. Kortlandt 2010a (highlighting the differences between Balt. and Sl. mobility) and 2007, 229–230 (discussing the sources of mobility in the verb).

<sup>27</sup>The hardly tenable view that the BSl. mobile paradigms simply constitute an archaism directly preserved from PIE, even in thematic stems, has been largely abandoned (a prominent modern proponent of a variant of this view, however, is Dybo, e.g. 2007; 2011). Nonetheless, it is not unreasonable to assume that in certain other categories PIE mobility feeds into the BSl. paradigms in a direct way. Some modern frameworks, in fact, operate with a fair share of accentual mobility inherited from PIE, though still admitting major BSl. innovations (e.g. Kortlandt 2009c, 77; see also fn. 26, 28). As far as other frameworks are concerned, the most thoroughly argued and internally consistent one – though isolated – is that of Babik (2012), deriving mobility from PIE barytonesis.

<sup>28</sup>Cf. the invaluable overview of previous research in Olander 2009, 14–46. Since this study is not concerned with pre-BSl. accentual developments, no exact stance needs to be taken as regards the origin of the BSl. mobile paradigms. The following general framework is loosely adopted as a background in the present work: in the nominal system, mobility is typically the reflex of PIE oxytonicity, with a leftward accent shift or deac-

## 2.2. The mobile paradigm of the active participles

Beside being one of the synchronic diagnostics for mobility in Lith. verbs, the forms of the ptcp. pres. act. have not been seen as contributing particularly much to the perplexing central questions of BSl. accentology, and they have not figured in the discussion overly prominently. However, the mobile accentual curve of the ptcp. pres. act. is intriguing in at least one respect: the ‘short’ nom. pl. form (*vedq̄*) has final stress. This is manifestly at variance with the status of the nom. pl. in the mobile paradigms of all other athematic stem classes, which, as is well-known, is consistently barytone<sup>29</sup> – *u*-stem *sūnūs* (3) ‘son’, nom. pl. *sūnūs*; *i*-stem *žvėris* (3) ‘beast’, nom. pl. *žvėrys*; *n*-stem *akmuō* (3<sup>b</sup>) ‘rock’, nom. pl. *ākmenys*; *r*-stem *duktė* (3<sup>b</sup>) ‘daughter’, nom. pl. *dūkterys*; not irrelevantly also *ā*-stem *pėdà* (3) ‘foot’, nom. pl. *pėdos* and *ē*-stem *gerklė* (3) ‘throat’, nom. pl. *gėrklės*.<sup>30</sup>

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centuation having dislocated a subset of forms from the original columnar end-stressed paradigm and thus provided the foundation for BSl. bilateral mobility. This is the seminal innovation corresponding to the “Mobility Law” of Olander 2009 and “Saussure-Pedersen’s Law” of Jasanoff 2008; 2011 (cf. also 2017). It also partly corresponds to “Pedersen’s Law” (in its BSl. instantiation) and “Barytonesis” in Kortlandt’s framework, although the significance of these has been noticeably reduced in the recent revisions (e.g. Kortlandt 2009c, 76-77), where a more central role of inherited PIE mobility (partly internally reconstructed from apophony) is assumed instead. In the verb, BSl. mobility correlates most clearly with PIE root-stressed simple thematic presents (type *\*b<sup>h</sup>éreti*), so that, unlike in the noun, it cannot be explained in a straightforward fashion from any PIE oxytonic type. This paradox *vis-à-vis* the nominal system has been explained in a number of ways (Olander 2009, 194: generalization of *tudāti*-present stress; Jasanoff 2008, 362ff.: generalization of the accentuation of prefixed forms, cf. fn. 42).

<sup>29</sup> Synchronically, of course, this is best described in terms of the athematic nom. pl. consistently having the valency of a ‘weak’ ending, regardless of its segmental makeup. For the sake of simplicity, however, the present study will operate with the accentuation of surface forms, without considering the questions of compositionality, despite the importance of the latter for synchronic description (see recently Rinkevičius 2011). (The compositional structure of the forms discussed here is uncomplicated in any case.) The thematic nom. pl. is end-stressed in mobile paradigms, i.e. a ‘strong’ ending, which is no doubt connected to its different segmental structure at the time when mobility arose (not affected by the law(s) referred to in the preceding fn.).

<sup>30</sup> The *ā*-stems continue the PIE *eh<sub>2</sub>-* (and therefore consonant-)stems and pattern as athematic as far as accentuation is concerned, in spite of their synchronic close association with thematic stems in Balt. like in other IE languages. The *ē*-stems have a mobile accentual curve essentially identical to that of the *ā*-stems.

Beyond this one peculiarity, the accentual paradigm of the ptcp. pres. act. offers no remarkable surprises. In the masc., the athematic nom. sg. *vedq̄s* and acc. sg. *vēdanti* have end-stress and barytone stress, respectively (like *sūnūs* : *sūny*, *akmuō* : *ākmenj* etc.). The ‘long’ nom. pl. form *vēdantys*, which – as pointed out earlier (§1.1) – is segmentally formed in a regular manner, is also accented in accordance with the general barytone stress of athematic nom. pl. forms.

The oblique forms extended with the thematic suffix *-ja-* are consistently recessive in the literary language (gen. sg. *vēdančio*, prefixed *nēvedančio*; dat. sg. *vēdančiam*, prefixed *nēvedančiam...*), and the same holds for the whole fem. paradigm (nom. sg. *vēdanti*, acc. sg. *vēdančiq̄*; prefixed nom. sg. *nēvedanti*, acc. sg. *nēvedančiq̄*). However, this is the result of a well-understood recent innovation, namely the simplification of a fuller mobility scheme corresponding to that of other nominals, which is reflected in Daukša (Skardžius 1935, 210–218), and is still found in some modern dialects (predominantly Žem. and neighboring Aukšt.; Kazlauskas 1968, 73–77; Zinkevičius 1981, 149). As an example of such a system with preserved ‘ordinary’ mobility, Kazlauskas cites forms from the dialect of Mažeikiai (masc.: nom. sg. *kriokq̄s*, gen. sg. *kriōkančio*, dat. sg. *kriokančiam*, nom. pl. *kriokq̄*; fem. nom. sg. *kriokanti*, gen. sg. *kriokančios*, dat. sg. *kriokančiai*, nom. pl. *kriokančios...*). Other dialects (e.g. Alunta) display intermediate systems with less mobility preserved and the tendency to stabilize the stress in some forms, and finally one finds (chiefly EAukšt.) systems approximating the literary language, with only a handful of end-stressed endings testifying to the erstwhile full mobility.<sup>31</sup>

In OPr. (Rinkevičius 2009, 184–185), some verbs take root-stress (e.g. *dīlants*, *rīpintin*), others suffix-stress (e.g. *andeiānsts*, *skellānts*, *niaubillīntis*) in this participle, which may reflect the old distribution between immobile and mobile verbs: “Su kirčiuota priesaga (dalyvio formantu), galinčia atspindėti senąjį mobilumą...” (Rinkevičius 2009, *ibid.*). Although inner-paradigmatic mobility has been lost,<sup>32</sup> the OPr. situation is derivable from (and thus compatible with) the archaic version of the Lith. picture.

<sup>31</sup> It must be noted that in many dialects, the non-nominative forms of this participle have gone out of use (Otrębski 1956, 250), which of course renders the issue of inner-paradigmatic mobility irrelevant.

<sup>32</sup> In particular, see Rinkevičius 2009, 184 as well as 109–109 on the status of the nom. pl. masc. *skellāntei*.

The picture is essentially confirmed by the Sl. cognate of this formation. In PSl., the ptcp. pres. act. of accent paradigm *c* (i.e. mobile) verbs displayed a pattern with recessive stress on the two-syllable nom. sg. masc. (\**vědy*) and end-stress in the rest of the paradigm (gen. sg. masc. \**vedotjā*, nom. sg. fem. \**vedotji...*; Lehfeldt 2009, 58–59; Dыbo 1981, 212; 2000, 481, 483–485). Although differing from the picture in Lith. in a non-negligible way as regards the distribution of the recessive and end-stressed forms (including the stress of the nom. sg.: end-stressed Lith. *vedąs*, on the surface pointing to a PBSl. \**wedants*, vs. recessive PSl. \**vědy*, pointing to PBSl. \**wedants*),<sup>33</sup> it corroborates the picture towards which Lith. appears to point, viz. that the PBSl. ptcp. pres. act. in \*-*nt-* had a mobile paradigm for those verbs that displayed accentual mobility in the finite system.

As regards the ptcp. pret. act., in standard Lith. it has columnar stress on the root across the whole paradigm (nom. sg. masc. *vėdęs*, prefixed *nevėdęs*; nom. pl. *vėdę*, prefixed *nevėdę*; nom. sg. fem. *vėdusi*, prefixed *nevėdusi...*). Unlike in the ptcp. pres. act., this pattern is shared by virtually all dialects (Kazlauskas 1968, 78–80; Zinkevičius 1981, 150). Still, there are clear indications that mobile verbs used to display accentual mobility also in this participle. Quite a number of end-stressed forms are attested in Daukša (Skardžius 1935, 218–220); crucially, as in the ptcp. pres. act., the nom. pl. is one of the forms taking end-stressed accentuation (cf. e.g. <*numirė*> 179<sub>5</sub>, 371<sub>13</sub>; <*nupleβė*> 393<sub>39</sub>). Daukša's accentuation in this participle is, as so often, inconsistent (cf. <*numirė*> 450<sub>31</sub>); however, forms corresponding to Daukša's type <*numirė*>, with stress on the ending of the nom. pl., are also known from later dialectal data (Kazlauskas 1968, 78–79; Zinkevičius 1981, 111). Kazlauskas reports Žem. forms like *nėšėi*, *prikėpėi*,<sup>34</sup> displaying accent retraction from what would correspond to standard Lith. \**nešė*, \**prikepė*.

The most plausible interpretation (Kazlauskas 1968, 79) of these facts is that mobility in the ptcp. pret. act. was affected by a similar process to the one seen at work in the ptcp. pres. act. above – the tendency to gradually

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<sup>33</sup> The mark *˘* is used here to denote the left-marginal accent of PBSl. mobile paradigms, approximating Olander's (2009) practice, but without crucial commitment to the notion of being actually accentless. It also corresponds to Jasanoff's (2008; 2011) mark *˘* (in 2017 replaced by *˘*). On the probable resolution of the PBSl. \**wedants* : \**wedants* dilemma, cf. further below in §3.2.

<sup>34</sup> “Viekšniai, Klykoliai ir kt.”

discard accentual mobility – only much earlier and to a greater extent, so that only traces of the original mobile paradigm remain.<sup>35</sup>

In OPr., according to Rinkevičius (2009, 185–186), all forms of this participle are stressed on the stem (root or derivational suffix), the very few apparent counterexamples coming from forms problematic in other respects (*aulausē*) or evident misspellings. Examples of ending-stressed forms (*prawedduns*, *embaddusisi*, *gemmons*) can only be furnished if the controversial OPr. spelling convention postulated by Kortlandt is accepted (for the formulation, cf. Kortlandt 1974, 300).

Once again, an original mobile paradigm in this participle is supported by Sl. evidence (PSl. nom. sg. masc. \**vědbъ*, nom. sg. fem. \**vedbši*; Dybo 2000, 514),<sup>36</sup> on the surface pointing to PBSl. masc. \**wedus(?)*,<sup>37</sup> fem. \**wedusī*.<sup>38</sup>

All in all, it follows that the mobile variants of both of the Lith. active participles were originally characterized by full accentual mobility, and – judging especially by the ptcp. pres. act. – that the curve was similar to those familiar from the other stem classes (at least in the immediate prehistory of Lith., leaving aside the Sl. and possible PBSl. situation). The only surprising feature was – and still is, in modern Lith. – the presence of an end-stressed nom. pl. form *vedq̄* (originally probably also \**vedē*), aberrant from the point of view of the accentual system as a whole.

Hence, the remaining part of this study will be concerned with the explanation of the unexpected end-stress in the nom. pl. *vedq̄* (/ \**vedē*) in the wider context of the paradigm it belongs to and its complex morphological origins.<sup>39</sup>

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<sup>35</sup> Kazlauskas links the much more advanced immobilization in the ptcp. pret. act. with the more common occurrence of preverbs in this participle, leading to inconvenient accentual alternations in longer forms. This particular motivation is perhaps open to question, but it does not invalidate the general interpretation.

<sup>36</sup> As noted by Dybo, however, the oldest state is retained only in the Čudov NT.

<sup>37</sup> The form of the nom. sg. masc. of this participle (PIE \**-wōs*) is not easy to ascertain for PBSl., given that the Balt. forms have been remodelled and that PSl. \**-v* pointing to PBSl. \**-us* may be a more recent generalization from the \**-us-* of the oblique cases. See the discussion in Olander 2015, 94–95.

<sup>38</sup> The mark *̣* is used to denote the PBSl. suprasegmental property of acuteness.

<sup>39</sup> It must be stressed once again that the point of interest here is the presence of an anomalous end-stressed athematic nom. pl. form within the accentual curve of a mobile accentual paradigm. No particular assumptions are necessary as regards the origin of BSl.

### 3. The accent of *vedq̄s*, *vedq̄*

#### 3.1. Cowgill's remarks

Throughout his paper mentioned above, Cowgill (1970) only makes two comments concerning the accentuation of the forms he is dealing with, and both of them indicate that he will neither attempt to explain the attested stress pattern nor use accentual evidence to support his claims. The first remark refers to the nom. pl. *vedq̄* (p. 29):

That *vedq̄* (aside from problems of accent) is what we should expect as third plural present indicative in Lithuanian was recognized already by Schmidt (...)

The second one (p. 35, note 2) concerns the neuter form *vedq̄* as derived from PIE *\*wed<sup>h</sup>-o-nt-Ø*:<sup>40</sup>

I cannot consider here the question of accentuation. But nominative singular neuter and nominative plural masculine of these participles have regularly the same accent as nominative singular masculine, and to the extent that the accent of the former has not developed straightforwardly from Proto-Indo-European models, it has evidently followed the same innovations as the latter.

The matter cannot be that simple, however: as discussed above (§2.2), the nom. sg. and nom. pl. actually do not pattern together accentually within Lith. mobile paradigms. Cowgill, not writing about BSl. accentology either in this study or in his works in general, did not frame his solution within the realm of accentual paradigms and referred to the surface similarity of particular forms instead. As a result, he may have overlooked the abnormality of the end-stressed nom. pl. *vedq̄*.

#### 3.2. Other explanations

In general, little attention has been paid in the literature to the accent of the nom. pl. *vedq̄* (whether analyzed as an old neuter form or in accordance with the finite analysis), or indeed to the general distribution of barytone and final-stressed forms in the mobile paradigm of the participles in question. Some scholars referring to the prehistory of the accent of this paradigm have sought direct surface matches in Ved. forms (thus e.g. Endzeliņ 1923, 12, comparing the accentuation of *vedq̄s* directly with the Ved. type *tudán*). But

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accentual mobility as a whole (see fn. 28) or the distribution between mobile and immobile accentual paradigms (see fn. 24), beyond the (widely accepted) genetic identity between the respective Balt. and Sl. classes.

<sup>40</sup> Cowgill's *\*wed<sup>h</sup>-nt-Ø*; see fn. 21.



any ‘pre-Stangian’ approach is unlikely to yield satisfactory results;<sup>41</sup> besides, the particular pattern of mobility, especially the unusual end-stressed nom. pl., is not clarified in this way.

Jasanoff (2008, 361) notes that, as far as the accentual difference between Lith. *vedq̄s*, *vėdantį* and PSl. *\*vėdy*, *\*vedotjā* is concerned (cf. §2.2 above), the Lith. pattern is more likely to be an innovation, since it “simply repeats the productive *\*duktė* : *\*dùkterin* distribution”, whereas the PSl. paradigm does not conform to the general patterns and is therefore more likely to retain an archaic distribution. This is the most reasonable train of thought available, and it would suggest that in PBSl. this participle displayed a distribution between recessive and end-stressed forms such that is also observed in the finite verb (PIE trisyllabic > end-accented, PIE disyllabic > recessive; cf. PIE *\*wéd<sup>h</sup>eti*, PBSl. *\*wedeti* vs. 1. sg. pres. PIE *\*wéd<sup>h</sup>oh<sub>2</sub>*, PBSl. *\*wedō*; likewise PIE *\*wéd<sup>h</sup>onts*, PBSl. *\*wedants?*)<sup>42</sup>, rather than a typical nominal mobile paradigm (of the type *galvā gálvq̄* = *\*golvá \*gōlvq̄* < PBSl. *\*galvā́*, *\*gálvām*). Whatever the PBSl. state was – no absolute certainty can be achieved regarding this, since it rests solely on prioritizing the PSl. data based on a *lectio difficilior* procedure – in Balt., the mobile paradigm of the participle clearly came to match the typical nominal mobile curve, ie. the “productive *\*duktė* : *\*dùkterin* distribution”.

However, again, this does not help clarify the significant detail constituted by the nom. pl. *vedq̄*, since – as was pointed out repeatedly – it does *not* correspond to the usual accentuation pattern of athematic stems (i.e. the “productive *\*duktė* : *\*dùkterin* distribution”; cf. nom. pl. *dùkterys*, dial. *dùkteres*). Therefore, the accentuation of course cannot have been taken over from this general model.<sup>43</sup>

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<sup>41</sup> Whatever theory one holds to be the most persuasive, cf. fn. 28, it is clear that simply pointing out surface correspondences in place of stress between Ved. (or PIE) and BSl. can scarcely produce an adequate explanation in view of the broad-spectrum accentual innovations of BSl., specifically the rise of the characteristic mobile paradigm.

<sup>42</sup> Again, it is not crucial for the present purposes how this PIE > PBSl. development is best accounted for. Jasanoff (2008; 2011) explains it as the generalization of the accentuation of prefixed forms like *\*ne wéd<sup>h</sup>oh<sub>2</sub>*, *\*ne wéd<sup>h</sup>eti*, affected by the aggregate of two sound laws central to his theory (“Saussure-Pedersen’s Law” = “SPL” and “Proto-Vasil’ev-Dolobko’s Law” = “Proto-VDL”). See also Jasanoff 2017

<sup>43</sup> See also fn. 20 and the references therein. I am not aware of any further modern accounts dealing with the specific accentuation pattern of the participle in question.

### 3.3. The accentual corollaries of Cowgill's solution

However, it has gone unnoticed that Cowgill's ingenious solution clarifying the segmental shape of the nom. pl. *vedq̃* also happens to explain its accentual properties – at least as far as the BSl. time depth is concerned. That is, it can easily be argued that the peculiar nom. pl. was imported from the finite verbal paradigm together with its accentuation. When viewed against the background of its original finite domain, the accentuation is hardly aberrant; in fact, it becomes entirely clear.

This is the case because the PSl. cognate of the source form identified by Cowgill – the 3. pl. act. of the finite verb – is end-stressed in the mobile present paradigm in Sl. (PSl. *\*vedq̃tb*),<sup>44</sup> as are all the forms except for the 1. sg. (*\*vèdq̃*). The most natural assumption is that the PSl. situation reflects the PBSl. accentuation faithfully (i.e. PSl. 1. sg. *\*vèdq̃* << PBSl. *\*wedq̃*, 3. sg. *\*vedetb* < PBSl. *\*wedeti*, 3. pl. *\*vedq̃tb* < PBSl. *\*wedanti*).<sup>45</sup> The only other change that needs to be alluded to is the well-known apocope of word-final *\*-i*, which is responsible for PBSl. *\*wedanti* surfacing as Lith. *vedq̃* rather than †*vedanti*. With the apocope setting in, the transfer of the ictus onto the originally penultimate syllable is the unproblematic, natural assumption, paralleled e.g. by numerous phenomena in the later history of Lith. (e.g. loc. sg. *-amè* vs. shortened *-am̃*, instr. sg. *-umì* and *-imì* vs. shortened *-um̃* and *-im̃*).<sup>46</sup>

The apocope in question is an elusive phenomenon, often invoked for both Balt. and Sl. in different positions, but with contentious and intensely debated details.<sup>47</sup> This is of minor importance for the derivation of Lith.

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<sup>44</sup> Later Sl. *\*vedq̃tb* > *\*vedq̃tb* due to the retraction of ictus from word-final jers. In those Sl. languages which display *t*-less endings in the 3. pl. (see fn. 47), the reflexes can be subsumed under the archetype *\*vedq̃* (Čak. *-û*, Cz. *-ou*, Pol *-q*), with consistently preserved neoacute length. This, incidentally, strongly suggests recent loss of the *\*-tb*.

<sup>45</sup> Cf. §3.2 and fn. 42 above.

<sup>46</sup> The resulting circumflex intonation is expected irrespective of the chronology assumed. On the one hand, if the apocope and the resulting retraction are sufficiently old, the surface circumflex may simply reflect the etymological non-acuteness (non-glottalization, etc.) of the new host syllable; on the other hand, if the apocope is to be dated later, the circumflex may result from the retraction of the accent onto the most recent mora (like in the parallels given above in the main text).

<sup>47</sup> There has been considerable discussion regarding how many instances of such a process have applied at the BSl., Balt. or Sl. levels, whether they can be framed within the terms of neogrammarian sound changes, and to what extent morphological processes (e.g. redistributions of old primary and secondary endings) might not be at play. Many

*vedq̃* from PBSl. *\*wedanti*, however. The operation of the apocope (prior to the loss of the now word-final *\*-t*)<sup>48</sup> in the Balt. present paradigm<sup>49</sup> is clear, as proved by the inevitable derivation of 3. sg. pres. *vēda* from *\*wed<sup>h</sup>eti*<sup>50</sup> – despite the non-phonological generalization of the thematic vowel *-a-* and the stabilization of columnar stress on the root – both well-known, sweeping innovations. The generalization of root stress, however, evidently postdated the dislocation of the 3. pl. *vedq̃* to the paradigm of the participle, which is the reason why the form retained its original BSl. stress pattern (to later become isolated both *vis-à-vis* the nominal domain, where it came to constitute the sole end-stressed athematic nom. pl. form, and the verbal domain, where columnar root-stress was eventually enforced). The loss of accentual mobility in the finite paradigms in Lith. seems to be a fairly recent innovation in any case, postdating the PBalt. or even EBalt. period, although the testimony here is mostly of indirect nature.<sup>51</sup> The accentuation of *vedq̃* adds another piece of

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of the controversies pertain to the role of the apocope in high-profile grammatical endings with complex relative chronologies, often interacting with other important changes, e.g. the PSl. instr. sg. *\*(o)q̃* and Lith. instr. sg. *-q̃* (cf. def. *gerája*) < *\*<sup>o</sup>-eh<sub>2</sub>+mi*. As far as the loss of *\*-i* in 3. person endings is concerned, the Sl. languages famously display three different variants here (e.g. thematic 3. sg. *\*-etv ~ \*-etv ~ \*-e*, 3. pl. *\*-q̃tv ~ \*-q̃tv ~ \*-q̃*, in various configurations; the variants in *\*-tv* have been suspected to have developed via paragoge from earlier *\*-t*). This situation has been explained as having arisen through an apocope and/or morphological redistributions. For recent discussion on the loss(es) of *\*-i* in Balt. and Sl., see Hill 2013, 173–175; Hock 2012, 119–120; 2007; Villanueva Svensson forthc. with previous literature.

<sup>48</sup> Importantly, these developments should not be confused with the much later loss of the final syllable in the gerund in *-nt* (refl. *-ntis*), e.g. *vēdant*, formed from the same stem; Stang 1966, 207, 264.

<sup>49</sup> Of course excluding athematic verbs, cf. Lith. *ēsti*, in all likelihood due to their disyllabicity (see references in fn. 47).

<sup>50</sup> By way of clarification, it should be underscored that the standard reconstruction with the PIE 3. pers. thematic endings *\*-eti*, *\*-onti* is assumed here (Meier-Brügger 2010, 311; Fortson 2010, 91; Clackson 2007, 127 etc.).

<sup>51</sup> Without invoking the shaky Lith.-internal data (cf. <*kelamè*> 168<sub>30</sub>, <*giriamè*> 624<sub>48</sub> etc. in Daukša; Skardžius 1935, 195–196), the livelihood of the mobile paradigm in Balt. can be gleaned from the opposition between sustained tone (= immobile acute) and broken tone (= mobile acute) in Latv. verbs, as well as the apparently still synchronically discernible mobility in the finite verb of OPr. (Stang 1966, 451–455; Kortlandt 1974, 301; Rinkevičius 2009, 175–183, 216 skeptically on synchronic mobility in OPr., but positively on PBalt.). A direct remnant of an end-stressed 3. pres.

evidence pointing to the existence of paradigmatic accentual mobility in the Balt. verb – a valuable finding, since the presence of genuinely tangible proof for this is often said to be missing (cf. Rinkevičius 2015, 80).

To recapitulate, the accentuation of Lith. *vedā* becomes clear if the form is derived from the PBSl. accentual archetype that PSl. *\*vedōtb* points to, i.e. *\*wedanti*. It should be emphasized once again that it need not concern us how the latter PBSl. accentuation itself arose from the PIE situation, which can be quite safely reconstructed as *\*wéd<sup>h</sup>onti*. It is worth adding, however, that even if the PBSl. stress pattern is reconstructed as *\*vedánti* instead, as e.g. per Olander (2009, 194),<sup>52</sup> the explanation is still valid: PBSl. *\*wedánti* yields Lith. *vedā* just as smoothly.

#### 4. The accentuation of the remaining forms

##### 4.1. Other stem classes

In the scenario drawn above for the derivation of Lith. nom. pl. *vedā* from PBSl. 3. pl. pres. *\*wedanti* – in fact, a rather unassuming accentological ramification of the solution offered by Cowgill (1970) – the use of the verb *vèsti* should of course be understood as a proxy illustrating the development of all such forms in the mobile paradigm. The explanation naturally extends to other types as well, notably the *i*-verbs. Thus, a form like nom. pl. *minī* (from the verb *minéti*, *mīni*, *minéjo* ‘mention’; mobile type, cf. *paminéti*, *pāmīni*) goes back to a PBSl. 3. pl. pres. *\*mininti* (cf. PSl. *\*mьnētь*) in a fashion precisely parallel to that of *vedā* < *\*wedanti*. However, the controversies surrounding the origins of the BSl. verbal stems in *-ī*<sup>53</sup> make it less convenient a model for demonstrating the development. Naturally, a certain subset of forms will

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in modern Lith. has been sought in the adverb *ganà* ‘enough, quite’ (Schmalstieg 1984), but in the light of the detailed review by Petit (2012) this does not seem likely. The status of *yrà*, the 3. pres. of the verb ‘to be’, is similarly uncertain in view of the unclear morphological source.

<sup>52</sup> As was mentioned in fn. 28, Olander assumes that the stress of full-grade thematic presents in BSl. adopted the pattern of the PIE *tudáti*-presents (thus effectively *\*wedéti*, *\*wedánti* instead of †*wédéti*, †*wédonti* expected phonologically from PIE *\*wéd<sup>h</sup>eti*, *\*wéd<sup>h</sup>onti*); the PSl. situation (*\*vedetb*, *\*vedōtb*) is then generated via Dybo’s Law. Such a pattern of accentuation is also considered as one of the possibilities by Rinkevičius (2015, 80). PBSl. accentuation on the final syllable is more consistent with the overall polarized, bilateral outlook of the mobile paradigm; it is not necessary to resolve the issue for the present purposes, however.

<sup>53</sup> See the discussion in Petit 2010, 258–260; Jasanoff 2004, 152–161, with references.

be of analogical origin (see also fn. 20), not traceable directly to a PBSl. 3. pl. finite form or its accentuation, but copying the productive pattern of *vedq̄* etc.

#### 4.2. The accentuation of nom. sg. masc. *vedq̄s*, neutr. *vedq̄* etc.

As was stated at the beginning (§1.1), the nom. pl. is only one of the three end-accented forms in the mobile paradigm of the ptcp. pres. in standard Lith., the other two being the homophonous neutr. *vedq̄* as well as the nom. sg. masc. *vedq̄s*. As was emphasized later (§2.2), however, the original paradigm of those participles in Lith. was characterized by full bilateral mobility of the usual sort, where the nom. pl. *vedq̄* was the only form requiring a special explanation in view of anomalous accentuation. Now that the nom. pl. *vedq̄* has been dealt with (PBSl. *\*wedanti*), the accentuation of the other forms can be briefly revisited as well.

As was noted in §2.2, it is difficult to say with much certainty how the mobile paradigm of the active participles was structured in PBSl. If an argument were to be made that a direct reflex of a recessive PBSl. *\*wedants* (= PSl. *\*vėdy*) would be expected in the still internally mobile paradigm of old and dial. Lith. (†*vėdqs*),<sup>54</sup> then, in view of the findings of section §3, additional motivation (alongside the pervasive pattern of end-stressed athematic nom. sg. forms) could be added for the repair of the Lith. form to *vedq̄s*, namely the presence of final stress on the newly acquired corresponding pl. *vedq̄*. Note that this is significantly more plausible than the opposite, i.e. explaining the accentuation of nom. pl. *vedq̄* as having developed from an older *\*vėdq̄* due to the influence of nom. sg. *vedq̄s*; this would have amounted to the conversion of a paradigmatically well-formed item into an aberrant one.

In the neutr. form, things are still less clear, especially since there is no PSl. comparandum (where the masc. nom. sg. appears to have been extended to the neutr.).<sup>55</sup> Being segmentally very close to masc. *\*wéd<sup>h</sup>onts*, the form *\*wéd<sup>h</sup>ont* could be expected to have developed accentually along similar lines.

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<sup>54</sup> OPr. seems to have stabilized the stress on the suffix in old mobile verbs, cf. §2.2.

<sup>55</sup> In OCS, the ending *-y* (< masc. *\*-onts*) is found agreeing with neutr. sg. subjects. However, the general situation in the nom. sg. masc. (and neutr.) of this category in OCS and other Sl. languages is fairly complicated (variant endings *\*-y*, *\*-q̄*, *\*-ę*, possibly also *\*-a*; cf. Vaillant 1958, 544–545; Aitzetmüller 1991, 236; Olander 2015, 93–94; here must be added the whole array of problems surrounding the mysterious Glagolitic letter <Ϸ>, see e.g. Vermeer 2016, 5–8). It is not inconceivable that the variant *\*-q̄* could continue a displaced neuter *\*-ont* and thus correspond directly to Lith. *-q̄*, but this is merely a remote possibility, and no viable accentual information is available in any case.

And as far as the general template is concerned, oxytone accentuation in the neutr. is entrenched in the system, judging by the evidence from *u*-stem adjectives (neutr. *vēlū* ‘late’ in accordance with masc. nom. sg. *vēlūs*). The accentuation of the segmentally homophonous newly integrated nom. pl. *vedq̄* may have played a role as well, but – as in the preceding case – this assumption is merely an option, by no means a necessary element of the theory advanced here.

#### 4.3. The accentuation of the ptcp. pret. act.

As seen at the outset (§1.1), the ptcp. pret. act. has columnar stress on the root in all forms in standard Lith.; as was added later (§2.2), OLith. and the dialects preserve traces of erstwhile mobility, apparently reflecting an old accentual pattern mirroring the one seen in the ptcp. pres. act. It seems probable, based on the evidence briefly discussed above, that the original ptcp. pret. act. counterparts of the forms discussed above was *\*vedq̄* (nom. pl.), *\*vedq̄s* (nom. sg. masc.), *?\*vedq̄* (neutr.).

Since the latter two forms are themselves the product of a morphological analogy based on the ptcp. pres. act. *vedq̄s* and *vedq̄*, respectively, there is no use discussing the prehistory of their accentuation. The question is more justified, however, in the case of the nom. pl. *\*vedq̄*. Here, Cowgill’s theory plausibly assumes that the form goes back to an actual 3. pl. pret. *\*vedēnt(i)*. Therefore, since the nom. pl. of the ptcp. pres. act. *vedq̄* preserved the accentuation of 3. pl. pres. PSl. *\*wedantī*, one could speculate whether the nom. pl. of the ptcp. pret. act. *\*vedq̄* could not likewise represent the original accentuation of the 3. pl. pret. form.

However, unlike in the case of *vedq̄*, where the antiquity of the accentuation is corroborated by the PSl. cognate *\*vedq̄t̄b* as well as the general picture in the inherited thematic present paradigms, the accentual prehistory of the Balt. *ē*-preterite is a problematic object of investigation. Examples of end-stressed forms in the finite paradigm of the preterite in Daukša and in the dialects tend to be confined to the reflexive (Skardžius 1935, 200–202); the significance of this, and the relation to the general phenomenon of BSl. accentual mobility in the verb, is unclear. Our understanding of the origin and early history of the Balt. preterite system – including the *ē*-preterite, from whose paradigm the form in *-q̄* was generalized – is unfortunately too insecure<sup>56</sup> to warrant any use of accentological data from Sl., let alone

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<sup>56</sup> See the discussion in Villanueva Svensson 2005 and Petit 2010, 249–254, with references. At the very least, for the present purposes it can be said that the accentual prehistory of these formations is mostly unrecoverable.

‘reconstructing forward’ from PIE. All of this is tantamount to a picture quite different from that in the relatively transparent simple thematic present.

In view of all this, the prehistory of the accentuation of *\*vedĕ* (nom. pl.), *\*vedĕs* (nom. sg. masc.), *?\*vedĕ* (neutr.) – today *vĕdĕ*, *vĕdĕs*, *vĕdĕ* – remains rather impenetrable. However, again, the nom. pl. of the ptc. pres. act. *vedā* (< *\*wedanti*) may have conceivably contributed to the observed patterns.

### 5. Conclusions

In his 1970 study, Warren Cowgill solved not one, but two independent problems concerning the history of the Balt. active participles. In addition to explaining the segmental shape of the nom. pl. *vedā*, his hypothesis assuming the derivation from the old finite 3. pl. (anticipated by the insight of Endzelīns) also happens to shed light on the accentuation of this form: *vedā* < PBSl. *\*wedanti*, cf. PSl. *\*vedotĭ*. In this way, the explanations of the two cruxes – the morphological composition of the aberrant short nom. pl. forms as well as their accentuation – mutually reinforce and yield credibility to each other. The accentuation of *vedā* – escaping, through its relocation to the nominal domain, the generalization of root stress in the finite verb – lends additional support to the assumption of the erstwhile existence of inner-paradigmatic accentual mobility in the Balt. verb.

While many points of the above sketch have to remain tentative, it should be emphasized once more that the core claim – the accentual history of the nom. pl. *vedā* – can be incorporated into any framework that assumes the historical identity of the Balt. and Sl. mobile paradigms, which is perhaps just as close to a consensus (cf. §2.1 and fn. 27–28) as the field of BSl. accentology permits. The fundamental prerequisite is, of course, the acceptance of Cowgill’s hypothesis, which has yet to attain the recognition it absolutely deserves.

# LIE. *vedq̃* = SL. *\*vedq̃t̃b*: VEIKIAMŪJŲ DALYVIŲ NOM. PL. KIRČIAVIMAS KAIP DAR VIENAS JŲ FINITINĖS KILMĖS ĮRODYMAS

## Santrauka

Neįprasta bl. veikiamųjų dalyvių nom. pl. forma (lie. *vedq̃* ir t. t.) buvo tinkamai išaiškinta (Cowgill, iš dalies jau Endzelīns) kaip senojo praes. 3. pl. (< ide. *\*wed<sup>h</sup>onti* ir t. t.) įsibrovimas į nominalinę dalyvio paradigmą. Vis dėlto iki šiol liko nepastebėta, kad šios formos kirčiavimas (sinchroniniu požiūriu visiškai izoliuotas ir netikėtas, kadangi tai – vienintelis galūnėje kirčiuojamo ateminio nom. pl. pavyzdys) taip pat gali būti paaiškintas pagal šią teoriją ir tokiu būdu ją patvirtinti. Kirčiavimas tiksliai atitinka bl.-sl. rekonstrukciją praes. 3. pl. *\*wedantī* (įmanomas ir mažiau tikėtinas variantas bl.-sl. *\*wedánti*), kurią leidžia suponuoti sl. *\*vedq̃t̃b*.

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*Marek MAJER*  
*Department of Linguistics*  
*312 Boylston Hall*  
*Harvard University*  
*Cambridge MA 02138*  
*USA*  
*[marekmajer@fas.harvard.edu]*