VERBALIZATION AND NON-CANONICAL CASE MARKING OF SOME IRREGULAR VERBS IN *-ē- IN BALTIK AND RUSSIAN

**Abstract:** The paper deals with some morphologically irregular verbs derived with the suffix *-ē-* in Baltic and Russian such as Lithuanian skaudėti 'to ache', reikėti 'have to, need', gailėti 'to pity', Russian bolēti 'to ache', etc. These morphological irregularities appear primarily in the present tense of the Baltic verbs under investigation. We claim that these verbs are nominal in their origin. We assume that there is a recurrent development found with these verbs: they rise as adverb-like or noun predicatives and, then, gradually acquire verbal properties. Their nominal origin furthermore explains the non-canonical alignment of the arguments of these verbs. We argue that this alignment represents a residue of a former nominal alignment. This explanation not only straightforwardly explains the quirky case-assignments, but also the morphological irregularities found in the present stem.

**Keywords:** non-canonical case-marking, alignment, verbalization, Baltic, Russian.

1. INTRODUCTION

The present paper aims to provide a historical account of the irregular present-stem morphology and the non-canonical alignment of some verbs in *-ē-* in Baltic and East Slavic, exemplified by such verbs as Russian bolēti / Old Russian bolēti 'to ache', Lithuanian skaudėti 'to ache' / dial. sopėti 'to ache', gailėti 'to pity', reikėti 'to need', 'have to, must' and Latvian sāpēti 'to ache'. Differently from other approaches, an attempt is made to account for both syntactic and morphological irregularities at the same time.

These verbs have been subjected to scrutiny in several works, cf., inter alia, Bjarnadóttir (to appear), Holvoet 2009; 2013, Seržant 2013a, 2013b, cf. also Seržant (to appear) for the areal account of these verbs. Their nominal and late origin has been asserted for many years in the literature (Skardžius 1943; Jakaitienė 1968; contrastingly Kaukiënė 1994). While the nominal origin of these verbs seems to be unquestionably clear, none of the aforementioned works provides a historical scenario that would account for the morphosyntactic make-up and the morphological irregularities of the present stem formation of these verbs. The nominal origin in itself does not entail the case assignment patterns and morphological irregularities in the present stem formations and, hence, requires an explanation.

In this paper, we will try to provide a historical account that would explain both the syntactic alignment and the morphology of these verbs. The typological background is provided by Bricyn et al. (2009).

The paper is structured as follows. Sections 1.1 and 1.2 provide brief descriptions of the irregular syntactic and morphological patterning of these verbs, respectively. Section 2 provides a historical account that simultaneously explains both. Section 3 summarizes the main results.

1.1. Syntactic description. The most typical pain verbs in Latvian, Lithuanian and Russian are Lithuanian skaudėti (dial. sopėti), Latvian sāpēti and Russian bolēti – all are exact translations of each other, all meaning ‘to ache’ and all having analogical argument structures and case frames: DAT<sub>EXPeriencer</sub> – Verb – Nom<sub>STIMulus</sub> (Seržant, to appear):

(1) Man skauda / sāp galva / golov. (Lithuanian)
   I<sub>DAT</sub> ache:PRS.3 head:NOM / head:ACC
   ‘I have a headache.’

(2) Man sāp galva. (Latvian)
   I<sub>DAT</sub> ache:PRS.3 head:NOM
   ‘I have a headache.’

(3) U menja bolit golov. (Modern Russian)
   at me ache:PRS.3G head:NOM
   ‘I have a headache.’

Only Standard Lithuanian has recently developed the DAT – Verb – Acc structure with this verb, replacing the older DAT – Verb – Nom with DAT – Verb – Acc (Bjarnadóttir, to appear; Holvoet, 2013; Seržant, 2013a; contrastingly Piccinii 2008, Ambrasz 2006: 214 and Fraenkel 1928: 116). Otherwise, the structures are the same across these languages. Bjarnadóttir (to appear) demonstrates that the alternating nominative vs. accusative marking of the body-part argument is distributed quite evenly across the Lithuanian dialects; she shows that, although nominative marking is the most prevalent in the Northwestern part of Lithuania, it is by no means limited to that area and examples of NOM can be found in most corners of Lithuania as far as Eastern parts and even dialects spoken outside the Lithuanian borders as in Lithuanian spoken in Belarus.

We see that these verbs exhibit a less canonical alignment of their arguments. They assign the dative case (a dative-like PP in Russian) to their highest ranked or subject-like argument while the second, object-like argument is assigned the nominative (accusative in Lithuanian). Alongside the verbs of pain, there are also other verb classes such as modal verbs that exhibit exactly the same type of irregularities with regard to both morphology and case assignment: Lithuanian reikėti ‘to need’ (Dat<sub>Maleficiary</sub> – Gen<sub>Theme</sub>) and ‘have to, must’ (Dat<sub>Subject</sub> – Complement clause) or gailėti ‘to pity’ (beside the regular Nom–Gen one also finds non-standard Dat<sub>EXPeriencer</sub> – Gen<sub>Stimulus</sub>):
1.2. Morphological description. While the past stem formation exhibits no variation with any verb in -ē- in Lithuanian, the present stem formation clearly discriminates between the deverbal and the denominal verbs in -ē-. The regular and old deverbal inagentives1 in -ē- are formed as sėdėti ‘to sit’ and gulėti ‘to lie’ (cf. inter alia, Harðarson 1998; Rasmussen 1993; Ostrowski 2006; Seržant 2008, 2011). In the standard language, these verbs synchronically take the extension in -i- in their present stem formation as in the right-most column of Table 1, cf. sėd-i ‘sits’. Even though these verbs exhibit some competing, innovative formations alongside the regular -i-present, the latter are extremely rare and restricted either to a specific dialect area or, in the case of the athematic endings, to Old Lithuanian only. Notably, Old Lithuanian exhibits some productivity of the athematic pattern, cf. 1.sg. sėdmi, which is arguably secondary with regard to Modern Standard Lithuanian sėdį. Yet, this is different with the verbs of concern (skaudėti, sopėti, reiškėti and gailėti). Here we find much more morphological variation and less uniformity, though the thematic present-stem formation is the most dominant/unmarked (in bold):

Table 1. Morphological variations of the verbs under investigation

<table>
<thead>
<tr>
<th>Infinitive</th>
<th>Thematic form</th>
<th>Athematic or neothematic form</th>
<th>Thematic &amp; suffixed *-j-</th>
<th>Regular form</th>
</tr>
</thead>
<tbody>
<tr>
<td>sėdėti</td>
<td>sėd-</td>
<td>sėd-z-i-</td>
<td>sėd-i</td>
<td></td>
</tr>
<tr>
<td>gulėti</td>
<td>gul-</td>
<td>gul-ia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>skaudėti</td>
<td>skaud-</td>
<td>skaud-ia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sopėti</td>
<td>sop-</td>
<td>sop-ia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>reiškėti</td>
<td>reišk-</td>
<td>reiš-ia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>gailėti</td>
<td>gail-</td>
<td>gail-ia</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Bold: the regular present 3rd form
Brackets: the form is not considered to belong to the paradigm of the respective verb in the descriptive grammars

Apart from this, the verbs under investigation deviate from the morphological pattern of gulėti ‘to lie’ and minėti ‘to mention’ by having an *o grade of the root2 which is historically unexpected and irregular.4 Importantly, the morphological irregularities correlate with the semantic classes: only the experiencer verbs (sopėti ‘to ache’, skaudėti ‘to ache’, gulėti ‘to feel pity’, reiškėti ‘have to, to need’) and modals (reiškėti ‘to need, to have’) have the irregular present affix and o/-e-root grade, while the old -ē-inagentives like gulėti with the regular zero grade of the root do not have this irregularity in the present stem. They all consistently have the present suffix -i in the third person, which is etymologically regular, stemming from the inagentive Proto-Indo-European suffix *-h₁je/o- (cf. inter alia, Harðarson 1998; Rasmussen 1993; Ostrowski 2006; Seržant 2011).

Crucially, the verbs under discussion only exhibit morphological idiosyncrasies in their present stem formation and not in the preterit, infinitive or future. In the latter formations, they pattern exactly as the old -ē-verbs of gulėti type. An explanation of these idiosyncrasies must thus concomitantly account for this paradigmatic asymmetry as well.

In the following, two different historical analyses will be suggested for Russian / Old Russian boleť / bolěti ‘to ache’ (Section 3) and the aforementioned Baltic -ē-verbs (Section 2).

2. HISTORICAL ACCOUNT: BALTIC VERBS IN -ē-

2.1. From noun/adverb to a verb. We claim that the reason for both the morphological and syntactic irregularity is the denomin origin of these verbs. They stem from predicative nouns, subsequently, adverbs such as sōpē / sópē, skaudā ‘pain’, reiškā ‘necessity, need’, gailā ‘pity’. This straightforwardly explains the non-canonical alignment: a nominal predication cannot assign a transitive Nom – Acc case frame while dative, on the contrary, is very frequent with the nominal predication in these languages (cf. Bonch-Osmolovskaya 2003), cf. Modern Russian:

(5) Mne bylo len’ gotovit’s’a k referatu (Modern Russian)
  IDAT COP.PST.3SG.N prepare-INF to presentation
  ‘I was too lazy to prepare for the talk.’

3 In case of Lith. sopēt, Latv. sāpēt the original *o grade of the root, yielding a in Baltic, has even been secondarily lengthened.

4 Generally, of course, the ø-grade of the root might be old in some rare instances. It might be inherited from the old perfect stem formation, morphologically remodeled later along the *-ē-pattern as it has been assumed for Slavic goreti ‘to burn’ (Stang 1942; 1966), for example. Nevertheless, the assumption of old perfects for the verbs under discussion is highly improbable.
As Bonch-Osmolovskaja (2003) states, these nouns do not inflect for case in Modern Russian in the relevant syntagma. They also do not agree with the copular verb as adverbs but never nouns typically do. Thus, in example (5), the predicative noun lam is feminine while the copular verb bylo has the neuter form. Example (6) is analogous. Consequently, their status has to be reconsidered as predicative (copula is optional in the present stem) while the part-of-speech attribution is rather one of adverbs patterning with true adverb-like predicatives as in (7):

(6) Im bylo grex žalowtysa (Modern Russian)

they:DAT cop.pst.3sg.n šir:nom, M complain

‘They should not have complained.’ (A. Gračev, Order na smert’, RNC)

Indeed, the nominal origin has already been suggested for other verbs in –ē– in, inter alia, Fraenkel (1925: 35–38) and Ambrazas (2001: 403) for Lithuanian reikēti. The respective noun reika ‘necessity, need’, cf. reika yra / es(i) / buvo / bit / būty [lit. ‘need is / was / would be’] ‘it is necessary, needed’ is well documented in Old Lithuanian (e.g. in Mažvydas, Vilentas, to mention some), alongside such allegro-forms as reikia or reikė.

A parallel development to reika is found in Old Russian where the noun nuža ‘necessity, need’ is used predicatively as a modal predicate, the clausal complement being indicative of a certain degree of grammaticalization:

(8) Liehoriaus fretekim ne ūt reika (Old Lithuanian)
doctor:gen,sf healthy:dat,pl not is necessity:nom

‘Those who are healthy do not need a doctor.’ (Bretkinas, Giesmės Duchaunos, 27,2)

To summarize, the following development for the Baltic verbs in discussion can be postulated:

(i) At the first stage, a complex predicate expression arises from a composition of a noun in the nominative case (originally subject) and a sort of “light verb”, originally the copula. The noun loses its nominal properties (inflection for case, subject – verb agreement, etc.) and develops into an adverb;

(ii) Consequently, at the second stage, there is a predicate that is compositionally formed by this adverb and the “light verb” (copula);

(iii) Finally, at the third stage, the adverb-predicate starts acquiring verbal properties (acquires personal endings, infinitive form, tense forms, etc.) and becomes integrated into the verbal paradigm.

Note that the assumed development from (i) to (iii) is not a “probable reconstruction” but is a documented development attested in Latvian vajadzēt ‘to need, have to, must’ or Lithuanian mažnėti/možnėti ‘can’, reikėti ‘to need, have to, must’ and Old Russian nadoběti.

2.1.1. Latvian vajadzēt. It is traditionally assumed that this verb has been borrowed from a Finnic language (Estonian or Livonian) as an adverb Latvian vajag(a) ‘it is necessary, have to’, cf. Estonian vają(k) ‘deficit, requirement’ (Thomsen 1890: 284), Livonian vająg ‘necessity’ (Kettunen 1938: 466). Crucially, no verbal status is attested in South Finnic suggesting that the verbalization must not have taken place until its borrowing by Latvian. The Latvian vająg(a) has been reinterpreted as the third person singular and plural form and secondarily acquired third person past form vajadzēja and the infinitive vajadzē–t.

As noted by Stolz (1991: 78), the fact that the nature of the Latvian counterpart is verbal while the Estonian one still is nominal is striking. Recall that Estonian vajak / Livonian vająg ‘deficit, requirement’ is a noun in the source languages but develops in Latvian through the intermediary stage of an adverb vajag ‘necessity’ into a third person singular verb form vająg-a and, subsequently, acquires the infinitive vajadzēt (< vajag–ē–t) as well as the respective past form vajadzēja (< vajag–ē–ja). It is probable that this noun was originally borrowed as a noun and adapted morphologically accordingly into vająg ‘necessity’ (Andra Kalnača, p.c.). At least the following example allows for such an interpretation:

(10) Man vająg čīr sacit

0 1 2 3

man vajaga adv(?) noun:fil,sg be(?) cop:pres.3 say:inf

‘I have to say.’ / ‘I have a need to say.’

The status of vająg is nevertheless controversial here as it can be analyzed as a noun or as a predicative adverb. It is quite probable to assume that Latvian has borrowed this noun with the predicative use of it because no other, nominal uses are attested in Latvian. This is supported by the fact that South Finnic languages employ this noun in the same context, cf. (11) from Livonian:

(11) ab, ao vająg ml noon

neg.prt neg:cop necessity 1 0

‘I don’t need.’ (Kettunen 1938: 466)

This explanation is compatible with the data in South Finnic, and it would also explain the rapid development of vająg/vająga in Latvian into an adverb-type predicative and, subsequently, into a full-fledged verb.

The cline from (i) to (iii) put forward above explains this discrepancy between the source and the target languages: this is the general treatment of these kinds of predicatives in Baltic and Russian (partly in the history of Russian too).
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2.1.2. Lithuanian mažnėti / možnėti. Notably, there is no need for the first stage (i) to occur. An adverb-type predicative can have an original adverb and, consequently, enter the cline (i) to (iii) at stage (ii). This is the case with the Lithuanian dialectal verb mažnėti / možnėti ‘can’ from East Slavic adverb možno ‘allowed, possible’ (LEW 1, sub verbo) that functions as a modal predicative in Slavic with the meaning ‘can, may’. Crucially, this verb does not have a present stem in Lithuanian (cf. Kuršchat 1968–1973, 2: 1382; LJŽ, sub verbo), although it has a conditional mažn-ē-ti [can-‘e–COND] and both this and the future mažn-ē-s [can-‘e–FUT] are formed with the suffix *-ē-s-like the other verbs discussed here. This is because the present stem (generally the unmarked and most frequent one cross-linguistically) is provided by the respective adverb mažna (cf. Kuršchat, loc. cit.).

2.1.3. Old Russian nadoběti. Another example, running fully parallel to Lithuanian mažnėti / možnėti, comes from Old Russian. The Old Russian modal adverb nadoběti ‘it is needed’ can sometimes acquire the regular third singular verbal ending -t’/-tъ in later texts as in (13) from Sokolova (1962: 266) to contrast with Old Russian (12):

(12) I ne nadobę ixb suditi nihukomu že čelověku (Old Russian)
   And not necessary:ADV they:ACC.PL judge:INF any:DAT.SG must:DAT.SG
   ‘And no man may denounce them.’ (Ustav. Gramota, Smolensk, 1150)

(13) koli čego nětъ a nadobě-t’ (Middle Russian)
   If something:GEN.SG lacks but necessary:3SG.PRES
   ‘If there is something missing though necessary…’

The suggested developmental cline (i) – (iii) straightforwardly explains the case assignment to both arguments of the predicates. Both Russian and Baltic generally assign datives to the highest ranked argument of adverb-like predicatives, irrespective of whether they originate from adverbs / adjectives (14) or nouns as in (15):

(14) Mne tjaželo (Modern Russian)
    Man grūti (Latvian)
    Man sunku (Lithuanian)
   EDMAT difficult:ADV
   ‘I am having it difficult.’

(15) Jemu uže vremja spati (Modern Russian)
    Jam jau laikas niesgti (Lithuanian)
    Vinum jau laiks iet guļēt (Latvian)
   He:DAT already time:NOM.SG go sleep
   ‘It is time for him to go to bed.’

2.2. Account of the syntactic alignment. While the dative case assignment to the highest ranked argument of these verbs is straightforward given that it is one of the most productive case-markings of the highest ranked arguments of predicatives in Baltic and Slavic, the only question that remains to be answered is about the second argument of these predicates. Now, the genitive of guileti or reikėti is straightforward since the corresponding nominal-type or adverb-type predicatives also govern the genitive:

(16) Man jo gálu (Lithuanian)
   EDMAT be:GEN pity:ADV
   ‘I pity him.’

This is, however, not as straightforward with the predicates that assign nominative case to their second argument, such as Lithuanian skaudėti and sopėti or Latvian sāpēt. We assume that this second argument is secondary here. The original meaning of the adverb-type / noun-type predicatives skauda / skaudžia, sopā / sopē must have been ‘painful’, cf. the modern adverb-like predicative Lithuanian skaudu ‘painful’:

(17) Man skaudu
   EDMAT painful:ADV
   ‘I am having pains.’

The utterance in (17) is grammatical and complete without requiring a stimulus argument. This is different from the verb skaudėti ‘to ache’ which requires a stimulus/body-part argument to be encoded explicitly or, at least, be retrievable from the discourse:

(18) Man skaudėti
   EDMAT skaudėti:PREZ.3
   ‘I am having pains.’

Indeed, we find attestations from Old Lithuanian which suggest rather adverb-like usage of sopā:

(19) Sopā dabār juog Pusis IEĖjudus <…> (Old Lithuanian)
    pain:NOM/ADV/PREZ.3 yet that Lord Jesus
    grieku ātaydima <…> ne už piningus duot
    sins remission not for money gives
    ‘It is furthermore painful for them that Lord Jesus still does not give the remission of sins for money.’ (Kn. Knyga nobažnystės, SE 172,8)

The following example – even though providing typical verbal features such as the future suffix -s with a zero ending – is also used as a predicative adverb in (17) and as a verb in (18) if compared to Modern Lithuanian:
In contrast to modern language use, where skauda and sopėti are ungrammatical without the nominative or accusative body-part argument, unless the latter is somehow identifiable from the context or pragmatics, the usage of sopėti in Old Lithuanian does not seem to underlie this restriction. This indicates that the nominative argument was not a valence-bound argument to that extent it is today.

In what follows, we provide examples of how a second argument may have arisen with the originally adverb-type predicatives. The target of pain, i.e. the body part, can be explicitly mentioned but not as a core argument of the predicate to begin with. The reader may compare this stage of development again with the adverb formation, with the originally adverb-type predicatives. The target of pain, i.e. the body part, can not be explicitly mentioned but not as a core argument of the predicate to begin with. Asache: 

(20) O Diosus jūs unmai jchaus (Old Lithuanian) but God them immediately will-shoot

Isg skaudēs gbiemus  
as ache:pres.3 they:DAT 

‘But God will immediately shoot them and it will be painful for them.’ (Jonas Rėza, Psalteras Dowyo 64,8)

Notably, the locative government is still an option with skaudēti / sopēti verbs in both Latvian and Lithuanian (the location-like strategy to encode the body part, cf. Bonch-Osmolovskaya et al. 2009: 17 for the classification):

(21) Taip man šiai šone skaudu ir skaudu (Lithuanian) 
So IDAT here side:LOC:SG painful:ADV and painful:ADV 

‘I feel such pain in the side.’ (Kiduliai, Šakiai region, LKŽ)

The nominative stimulus may stem from the former subject argument of the predicative, cf. examples such as the following one (Petit 2001: 291ff.; Ambrazas 2006: 140):

(22) Man skaudu šone (Lithuanian)  
Man säpi sani (Latvian)  
IDAT ache:pres.3 side:LOC:SG 

‘I feel pain in the side.’

In (23), the adverb-like predicative sveika ‘healthy’ has two quasi-arguments: the healthy person and everything. The latter is in the nominative case and is the subject of sveika. Thus, we assume that constructions as in (23) have enabled the body-part argument to be introduced with the former adverb-type predicatives. Consequently, the nominative subject could be introduced no earlier than at stage (ii) since at stage (i) the predicate consisted already of noun in (formally) the nominative case.

We summarize the development from (i) to (iii) in the following table:

### Table 2. Relative chronology of the skaudēti-type verbs

<table>
<thead>
<tr>
<th>Stage</th>
<th>Syntactic structure</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i)</td>
<td>(dat) + (copula) + noun</td>
<td>There is a need (for me) in smth. / to do smth.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The dative is either the predicative possessor or (more likely) a free dative (affected participant, external possessor)</td>
</tr>
<tr>
<td>(ii)</td>
<td>dat + (nom) + (copula) + adv (nom)</td>
<td>‘It is necessary (for me) to do ...’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Typically at this stage: no agreement with the copula, no plural forms, no modifiers etc.</td>
</tr>
<tr>
<td>(iii)</td>
<td>dat + verb (adv (nom)) + (nom)</td>
<td>‘I have to do ...’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acquisition of the verbal paradigm (past tense form, infinitive, etc.)</td>
</tr>
</tbody>
</table>

Brackets in the syntactic structure mean optionality

### 2.3. Account of the present stem morphology.

The historical account of the concerned verbs in -ēti as denominals allows a straightforward explanation of the morphological irregularities found in the present stem of these verbs. Note that the irregularities are found in the present stem formations only while the preterite, infinitive or conditional stem formations do not show any diversity with the old gulėti-type. We claim that this is because the present stem formations are older while the preterite etc. stems represent a recent innovation that was acquired only in course of the verbalization of this kind of originally predicative nouns and adverbs.

In Table 1 above, the simple thematic and the suffixed *-i- thematic forms can be straightforwardly accounted for as sustained adverbs or nominative nouns. Indeed, the unexpected and irregular form skauda (5.PERS.PRES. to skaudēti) patterns with the Lithuanian gaila ‘pity’ (adverb) with regard to case-assignments (except for the genitive stimulus with gaila instead of nominative or accusative with skauda which is, though, of no relevance here):

(23) sveikas žmogui viskas sveika (Lithuanian)  
healthy:DAT person:DAT everything:NOM healthy:ADV  

‘For a healthy person everything is healthy.’ (Ambrazas 2006:140)

The difference between skaudēti ‘to ache’ and gulėti ‘to pity’ is simply that, with the verb gulėti, the regular form gailėti has been selected according to the inherited pattern of inagentives (the gulėti type) while the original adverb formation gaila has not been fully verbalized. Notably, according to LKŽ (sub verbo), there is also a noun gaila with

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5 Notably, the etymological dictionaries just provide the whole derivational family, that is, the verb and the noun, but do not take a stand on what the origin of the verbal formation is.
6 Note that gaila seems to be very old given the exact etymological counterpart in Old Church Slavonic zēo < *goilo (= Lith. gaila).
the meaning ‘sorrow’. Thus, the adverb галиа may have arisen from this noun in the same way as Modern Russian лен’ and грекс did in (5) and (6) or like Old Russian želja:

(25) ... ошьльсъ ёмълъ жълъжъ (Old Russian)
not- is hermit:DAT regret: NOM
‘The hermit does not regret ...’ (Troickij Shornik)

In the same way, скауда and сопа can be regarded as original predicative nouns, still attested as nouns in LKŽ (sub verbo), cf. the nouns скауда / скаудéti and сопа / сопé ‘pain’.

Furthermore, we consider скауджіа to originally be a denominational derivation of *скауд(-)іа. In fact, the Lithuanian noun скауде ‘pain’ is just another, we concede analogically, phonological realization of the same proto-form *скауд(-)іа (Stang 1966), cf. the same alternative in Lithuanian сопа / sopé ‘pain’, реіка / реіка / реікé ‘need’ (LEW 2: 714). The presence or the absence of the derivational suffix *-(-)іа-is subject to variation with no difference in meaning, cf. Russian / Old Russian нуціa ‘need’ (OCS нуцда) from *нозд-іа as opposed to Lithuanian науда ‘use, need’ without this suffix. Furthermore, both реіка / реіка (with the suffix *-(-)іа- and реіка (without the suffix) are attested in the same predicative position; cf., furthermore, Old Russian želja (*гел-іа) in (25) above.

The possibility, that forms like скауджіа represent a simple thematization in analogy to Lithuanian dialectal галіа and Latvian гу (to гулеті), cannot of course, also be excluded. In exactly the same way, it cannot be claimed that, in all instances discussed so far, only the denominial origin of the present form must be assumed. We believe, however, that both morphological and syntactic evidence, as well as such parallels as Latvian уаждіет or Lithuanian моцніет / мацніет and Old Russian надобѣти with an unequivocal denominial origin, provide strong evidence in favor of the assumption that, in most of the cases, the denominial origin of the present form via the adverb status can be assumed. This also does not preclude etymologically related verbal formations from having any impact on the named verbs.

Table 3 summarizes the main conclusions on the morphology of the present stem formations:

<table>
<thead>
<tr>
<th>Current function:</th>
<th>Thematic form</th>
<th>Athetic form</th>
<th>Thematic &amp; suffixed *-(-)іа-</th>
<th>Regular form</th>
</tr>
</thead>
<tbody>
<tr>
<td>skaудёти</td>
<td>скауда</td>
<td>скаіста</td>
<td>скауджіа</td>
<td>скауді</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Its Source:</th>
<th>Thematic nouns / Thematic adverbs</th>
<th>Analogue (to -сър- stems)</th>
<th>Thematic nouns derived with the suffix *-(-)іа</th>
<th>The inherited Indo-European inagentive suffix</th>
</tr>
</thead>
</table>

The case frame is not affected by the morphological change from (noun >) adverb-like predicative > verb.

3. HISTORICAL ACCOUNT:
RUSSIAN / OLD RUSSIAN боел’ / болети

3.1. From Old Russian to Russian. A somewhat different development for болеті is attested in Old Russian. One cannot, however, exclude that a development similar to the one found in Baltic may have preceded the Old Russian and Proto-Slavic period.

We assume the following development for the Russian боел’ based on the examples we found (contrastingly, Yavorskaya 2009):

(i) Originally, it was a subject-experiencer verb meaning ‘to be sick, to have pains’ with an optional, non-argumental stimulus on the syntactic periphery;

(ii) Secondarily, it changes its meaning into ‘to ache’ with the body part as the subject. The body part stands metonymically for the experiencer, cf.: “if something affects part of a whole, then the whole is affected.” (Lamirov, Delbecque 1998: 31).

(iii) Finally, the experiencer argument is introduced either by means of the indirectly affected-participant morphology, namely, (iіі) the dative or dative-like expressions, or, alternatively, – and that is quite rare in Slavic – (iііі) by means of the accusative commodi.

In what follows, we present our data and argumentation for each stage.

3.1.1. Stage (і). Stage (і) is attested in Old Russian. In Old Russian (Srezen’skij 1–1: 150; SSR 1: 284) and Old Church Slavonic (StSl 1: 136) the verb боел’ (1.sg. bol’jo, 2.sg. bol’ši) meant ‘to be sick, to have pains’ only and never ‘to ache’:

(26) моля я глаголя: болъ ѳело (Old Russian)
asking and saying suffer:1.sg very
‘Asking and saying: I am hardly suffering’ (Vita of Niphon 325, from 1219)

The stimulus, i.e. the disease, may be encoded by an instrumental adjunct. Occasionally, also the affected body part can be encoded by the instrumental case thus being construed as the stimulus:

(27) ... болею понова сономь старець (Old Russian)
often PRT suffer:IMP.3.SG breast:INSTR.SG old-man:NOM.SG
‘The old man had often pains in his breast.’ (adopted from SDR 1: 294, from XIV–XV cc.)

Thus, the more general (possibly the more original) meaning almost lost in Modern Russian seems to have been ‘to worry about’, ‘to suffer’, usually quoted as the second meaning in the dictionaries (Srezen’skij 1–1: 150; SDR 1: 295):

(28) яко болю о тебе (Old Russian)
As worry:1.SG about you
‘as much as I worry about you’ (adopted from SDR 1: 295)
(29) i tvor bolēti dŪjavolu (Old Russian)
And making suffer:INF devil:DAT
‘and making the devil suffer’ (XIV c., adopted from SDR 1: 295)

3.1.2. Stage (ii). In Middle Russian
this verb acquires the meaning of ‘to ache’, thus stage (ii). The experiencer may be encoded as the internal possessor of the body-part NP at this stage:

(30) črevo moe bol(i) (Old Russian)
body: NOM my: NOM suffer: PRES. 3.SG
‘I have pains in my body’ (adopted from SDR 1: 295; from XIV c.)

The semantic change from stage (i) into stage (ii) can be explained by the loosening of the lexical input restrictions on the subject slot. However, the process of loosening is in itself semantically constrained. As we mentioned above, following the general explanation in Lamiray and Delbecque (1998: 31), we assume that the body part could be used in the subject slot thanks to its metonymic extension which allowed it to represent the experiencer:
(i) the lexical input restrictions on the subject slot of bolēti have been weakened and body-parts denoting NPs started occurring in this position;
(ii) the meaning of the verb has metonymically changed from ‘to be sick’ (only about animate NPs) to ‘to ache’ (only about inanimate NPs);
(iii) the internal-possessor strategy was gradually replaced by the external-possessor / indirectly affected-participant strategy for expressing the experiencer of the pain event.

Interestingly, this development is also found with the Old Russian nemošči ‘to be sick’ (the only meaning in Sreznevskij 2: 397) turning into ‘to ache’ beside ‘to be sick’ in the inchoative za-nemošči of Modern Russian. The metonymical extension of this type is quite frequently found across languages and in Modern Russian as well, e.g., with merznut’ ‘get cold’ (see below).

3.1.3. Stage (iiia). As regards stage (iiia), the adessive-like PP u ‘at’ with the genitive or, alternatively, the dative case – which is a more archaic strategy – is introduced to encode the indirectly affected participant. Both the adessive-like PP and the dative case are non-argumental adjuncts (free datives) to begin with. We believe that the possession relation that the indirectly affected participant shows towards the body part is motivated rather pragmatically (one can hardly be affected by someone else’s body part pains) and is, hence, secondary. It has also been argued that the external possessors are primarily affected participants (Haspelmath 1999; Payne, Barshi 1999). The term, affected participant, is semantically (and, hence, syntactically) more justified as it primarily relates to the whole clause and not to a particular NP (cf. McIntyre 2006 for the argument).

Notably, there is some variation regarding the case-marking of the affected participant: while Russian almost exclusively tends to encode it with the adessive PP with intransitive verbs (Garde 1985, Cienki 1993), cf. (31), other East Slavic branches (32) and Old Russian (33) – where the adessive PP does not enjoy such a degree of productivity – may employ the old strategy, namely, the dative case. Thus, as in a number of Russian dialects (AU M 3, map 81; Lönn gre n 1994: 57) as well as in Ukrainian (e.g. in Čtorniščina, cf. Samoxvalova 1982) – alongside the regular adessive PP u mene ‘at me’ – we find the dative case-marked affected participant:

(31) U menja bolit’ golova (Modern Russian)
at me ache: PRES. 3.SG head: NOM
‘I have headache.’

(32) peršį raz na Kapri bolīta meni holovā (Ukrainian)
First time on Capri ache: PST. 3.SG.F 1.DAT head: NOM.SG.F
‘For the first time on Capri, I’ve got headaches.’ (Mikhailo Kotsiubynsky)

(33) mango ho mi bolītu d(ou)štā (Old Russian)
a lot PST 1.DAT suffer: PRES. 3.SG soul: NOM
‘My soul suffers hard.’ (Căsătores, Jaroslawski, from XIII cc., adopted from SDJ)

The development (i) to (iiia) is frequently found and analogies are easily adducible, cf. the verb merznut’ ‘to get cold’ in Modern Russian that attests all three assumed stages in (i) – (iiii) or the Lithuanian verb sušalit’ ‘idem’. Thus, in addition to the Old Russian verb nemošči ‘to be sick’, similar developments are found in Lithuanian, cf. (34) representing stage (i), (35) – stage (ii), and, finally, (36) – stage (iii):

(34) Aš sušalau (Lithuanian)
Ja zamerz (Standard Russian)
I NOM get.cold: PST. 1.SG
‘I got cold.’

(35) (Mano) pirštai sušalo (Lithuanian)
(Mou) pol’cy zamerzli (Standard Russian)
My fingers:NOM get.cold: PST. 3
‘My fingers got cold.’

(36) Man sušalo pirštai (Lithuanian)
1.DAT get.cold: PST. 3 fingers:NOM
U menja zamerzli pol’cy (Standard Russian)
at me get.cold: PST. 1.PL fingers:NOM.PL
‘I have my fingers cold.’

Examples are taken from the relevant dictionaries (Sreznevskij 1893–1912 and SDR, SRR); all examples in this subsection are no earlier than XIII–XIV cc.
Note the dative case in Lithuanian and the adessive PP in Russian at stage (iii). Modern Russian has developed a new marker for the affected participant, i.e. the adessive PP, which – despite some semantic and distributional differences – competes with the dative case (Garde 1985, Cienki 1993). As, however, the (non-standard) Ukrainian example in (32) shows, the dative case has been another valid option in East Slavic for encoding the affected participant (external possessor and / or experiencer).

3.1.4. Stage (iiib). Old Church Slavonic, West Slavic and also East Slavic had another alternative for encoding a non-argumental experiencer of an intransitive event referred to by bolěti, namely, the accusativus commodi (first suggested by Popov 1879–1881, 1881 and elaborated in Danylenko 2003: 105–106; Krys’ko 2006: 117–119). This historical source of the experiencer case-marking has been compared to the Latin accusative experiencer predicates such as me pudet ‘I (ACC) am ashamed (3.SG)’ (Popov, loc. cit.; Danylenko, loc. cit.).

In addition to the frequent and more productive dativus commodi, Slavic attests this typologically rare pattern (cf. Serzant 2013b: 328–329). The accusative constituent is not an argument to begin with, it only acquires some object properties in the later languages (Krys’ko 2006: 119); in the same way as the dative experiencer, it is not originally an argument of the verb:

(37) zelo mja golova bolit (Middle Russian)
very EACC headGENPL.SG.F ache:3.SG
’I have strong headache.’ (Vita of Joseph 55, XVI c.)

This pattern remained productive in the Western Slavic languages such as Polish, it is also marginally preserved in Ukrainian.

Given the homonymy of the genitive and the accusative, it is often difficult to decide whether the experiencer is coded as an internal possessor (as unambiguously attested in example (37)) or as the accusativus commodi:

(38) ljudi ne starejatsa ni oči izh ne boljat (Middle Russian)
people:GEN not get-old nor eyes:GEN they:ACC:PL not ache:3.PL
’People are not getting older and their eyes do not ache’ (Story of Ind. Kingdom, 73; XV c.)

(39) Mnogyx bolty du∫a (Old Russian)
many:GEN / ACC:PL ache:3.PL soulGEN:PL
‘Souls of many are suffering’ (adopted from SDJ, vide sub verbo)

Even though the accusativus commodi is a marginal pattern in East Slavic, it shows some degree of productivity in the earlier languages. Thus, adverb-predicatives based on the copular construction may also assign adjunct-like accusative experiencers (accusativus commodi) in Old Church Russian and Old Russian (see examples in Krys’ko 2006: 118–119 with further references to Šaxmatov):

(40) Straxъ mja eda vnjadatъ ny ognev (Old Russian)
fear:NOM EACC whether exposure:INF USACC fire:DAT
’I am afraid, they might expose us to the fire.’ (XII c., adopted from Krys’ko 2006: 118)

(41) da mja tu∫a ne budets (Old Russian)
That EACC trouble:GENPL.SG not be
’so that I would not come into troubles.’ (XIV c., adopted from Krys’ko 2006: 118)

Examples (40) and (41) clearly illustrate that the accusativus commodi adjunct could adjoin an inherently intransitive predicate given the fact that the “light” verb of the predicative nouns straxъ ‘fear’ and tu∫a ‘trouble’ stems here from the copular predicate byti ‘to be’ that was never transitive.

We believe, following Danylenko (2003: 105–106), that the accusative experiencer with bolěti has emerged in the same way as with the noun predicates straxъ and tu∫a, namely, from the syntactic slot provided by the accusativus commodi adjunct. As mentioned above, the accusative experiencer remains preserved in the Western Slavic languages and, marginally, in Ukrainian while it is completely lost in Russian (Popov 1879–1881).

3.1.5. Summary. The described development can be summarized in the following table:

<table>
<thead>
<tr>
<th>Stage</th>
<th>Syntactic structure</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st stage</td>
<td>Source → Body part: instrumental</td>
<td>Only the experiencer can occupy the nominative slot; the body part may be construed as stimulus and encoded with instrumental (like other stimuli)</td>
</tr>
<tr>
<td>2nd stage</td>
<td>Experiencer → Body part: nominative</td>
<td>Both experimenters and body parts can occupy the nominative slot (in one NP: the experiencer can optionally be encoded as an internal possessor of the body part)</td>
</tr>
<tr>
<td>3rd stage</td>
<td>Experiencer: nominative</td>
<td>Only body parts can occupy the nominative slot; the experiencer has to be encoded by means of the adessive PP (u ‘at’ with Gen.) / dativus or accusativus commodi</td>
</tr>
</tbody>
</table>
3.2. Parallels in Baltic. Before we conclude, some remarks on Old Lithuanian and Latvian are in order. Notably, the development of the Latvian (sāpēt) and Lithuanian (skaudēti / sopēti) counterparts show some correlations with stage (ii) in Old and Middle Russian. Thus, we find that the logical subject of the middle participles allowed for the experiencers to occur in the head slot as evidenced by the data from Old Lithuanian. The middle participle in -ē- (e.g., skauda-ma-s, sopar-ma-s) can occur with both thematic roles in the head NP: the body part and the experiencer, cf. (42) and (43) with the body part subject as opposed to (44) and (45) with the experiencer head:

(42) *jo kūnas skaudamas* (Lithuanian)
His body: NOM, SG, M ache: PARC, PRES, PASS/ MID, NOM, SG, M
[lit.] 'His body is aching', 'He has pains in the body.' (Nesselmann 1851, LKŽ, sub verbo)

(43) *Aš turia skaūdamą* krogi (Lithuanian)
I have ache: PARC, PRES, PASS/ MID, ACC, SG, F leg: ACC, SG, F
'I have pains in my leg.' [lit.] 'I have an aching leg.' (Kurschat 1968–1973, LKŽ, sub verbo)

(44) *Numirre ir tas bagotus Waitodams* (Old Lithuanian)
die: PAST, 3 and this rich-man cry: PARC, PRES, PASS/ MID, NOM, SG, M
irgi faudamas and ache / suffer: PARC, PRES, PASS/ MID, NOM, SG, M
'This rich man died crying and suffering.' (Bretkūnas, Giesmės Duchaunos 122, 6–7)

(45) *Svyty tévas tāvas ir aš* (Old Lithuanian)
thus father: NOM, SG yours: NOM, SG and I NOM, SG
'Thus, your father and I was looking for you in pains [lit. suffering].' (Daukša’s Postrilś 63, 32–33)

We also found one example in Latvian where the nominative subject slot is occupied by the experiencer and not by the body part – the latter being the regular situation. This is highly reminiscent of the stage (i) for East Slavic:

(46) *visu tuo dzird un sajāt Anna, sāpetama* (Latvian)
all this hears and feels Anna: NOM suffer: NOM
'Anna hears and feels all this with pains.' (EH XVI, 472)

Also, as assumed for stage (ii), the experiencer can be expressed via the internal possessor strategy in Old Lithuanian:

(47a) *fū kurtuo ir Tėvai paities / firdis / iligei fopeia* (Old Lithuanian)
with whom and Father’s himself heart: NOM equally ache: PAST, 3

(47b) *ir fīgi, and be-sick: PAST, 3*
‘with whom also the Father’s heart equally ached and was sick.’ (Knyga nobažnystės, SE 245, 24–25)

(48) *Skaust, get mano širdužis ir be tū žodelį* (Lithuanian folklore)
aches aches IGEN heart: NOM and without these words
‘My heart hurts even without these words.’ (RD 121, Rhesa 1843)

(49) *Ui skausti skausti mano širdelę* (Lithuanian folklore)
Oi aches: PRES, 3 aches: PRES, 3 IGEN heart: ACC
‘Oi, my heart aches.’ (Tilžė, 265, Aleksynas, par. 1998 = Kalvaitis 1905)

So far we are not in a position to make claims about the origin of the Old Russian verb bolēti, whether it also stems from a noun (like Old Russian/Old Church Slavonic bol’, StSl: 98) or an adverb in the same manner as did, e.g., the Lithuanian verbs skaudēti or sopēti. However, we would like to emphasize that the development of these verbs in Baltic via a predicative noun, subsequently, predicative adverb suggested above is compatible with what we find in East Slavic since there are a number of adverb-type predicatives that may take both the nominative or the dative experiencer, cf. Modern Russian (see Say, to appear):

(50a) *Mne bol’no*
I: DAT painful: ADV
‘I feel pain,’

(50b) *Ja bolen*
I: NOM sick: ADJM
‘I am sick.’ (about males)

Note that both predicatives bol’no and bolen are morphological variants of the same stem. The predicative bolen is different from bol’no in that it has to agree with its nominative subject in gender and number. The predicative bolen would correspond semantically to East Slavic bolēti while the predicative bol’no corresponds to Baltic (Lithuanian) skaudēti/sopēti.

4. SUMMARY AND CONCLUSIONS

In the present paper, we have argued that the Baltic verbs Lithuanian skaudēti, sopēti, Latvian sāpetē ‘to ache’, as well as such verbs as rekēti ‘to need, have to’, gailēti ‘to pity’, represent verbalizations of the predicative adverbs (historically from adverbs...
or nouns). This development not only coherently accommodates the syntactic alignment found with these verbs in both Modern and Old Lithuanian as well as in Latvian, but also provides an explanation for the morphological irregularities found with these verbs in their present stems. We have claimed that the morphologically irregular thematic present-stem formations are, in fact, sustained adverb or nominative–noun forms (with subsequent, morphophonological accent retraction due to the change in the part of speech: from a noun to an adverb).

An attempt has been made to trace the documented changes in meaning for the Russian verb bolëti / Old Russian bolëti. We have illustrated that the original meaning of this verb was ‘to be sick’, while the modern meaning of ‘to ache’ is the result of the metonymical extension of the lexical input restrictions on the subject slot of this verb where body-parts denoting NPs secondarily became also allowed to occur. We have additionally added parallels from Lithuanian and Latvian.

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**Verbalization and Non-canonical Case Marking of Some Irregular Verbs in *-ē- in Baltic and Russian**

**SANTRAUKA.** Straišnyje nagrinėjami kai kurie netaisyklingos morfologinės sandaros baltų ir rusų kalbų veiksmažodžiai, padaryti su priesaga *-ē- (tokie kaip lietuvių skaudėti, reikėti, gailėti, rusų bol’ē ‘skaudėti’). Netaisyklinga morfologinė sandara būdinga šios grupės baltų kalbų veiksmažodžių esamajam laikui. Laiškose nuomones, kad jie yra vardažodžinės kilmės. Manome, kad šios grupės veiksmažodžiai būdinga tokia nuolat puošančia rūpestingas arba tarpininkas arba daiktavardžių ir paaiškinėti veiksmažodžių ypatybės. Vardažodinė kilmė paaiškina nekanoninę jų argumentų raiškos strategiją. Manome, kad tokia strategija atspindi anksčiau esamų vardažodžių argumentų struktūrą. Tai paaiškina ne tik neįprastą linksnių priskirimą, bet ir netaisyklingas esamajam laikui kaimeno formas.

**САНТРАУКА.** Стратыне анализируются некоторые неправильные балтийские и русские глаголы, образованные при помощи суффикса *-ē- (такие, как литовские skaudėti, reikėti, gailėti, русский болеть). Неправильное морфологическое строение больше всего проявляется в настоящем времени балтийских глаголов этой группы. Мы считаем, что они именного происхождения. Мы считаем, что для глаголов этой группы характерна последовательно повторяющаяся модель развития: они появляются из предикативно употребляемых адвербов или существительных и постепенно приобретают черты глаголов. Именное происхождение объясняет неканоническую стратегию выражения аргументов этих глаголов. Мы считаем, что такая стратегия соответствует первоначальному именному характеру этой структуры. Этим объясняются не только необычное распределение падежей, но и неправильные формы основ настоящего времени.

**NETAISYKLINGŲ *-ē- KAMIENO VEIKSMĀŽODĪJU VERBALIZĀCIJA IR NEKANONINĒ LINKSNIŲ RAIŠKA BALTŲ IR RUSŲ KALBOSE**

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**ВЕРБАЛИЗАЦИЯ И НЕКАНОНИЧЕСКОЕ ПРОЯВЛЕНИЕ ПАДЕЖЕЙ НЕПРАВИЛЬНЫХ ГЛАГОЛОВ *-ē- ОСНОВЫ В БАЛТИЙСКИХ И РУССКОМ ЯЗЫКАХ**


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