Non-canonical argument marking in two-place predication: the case of Baltic languages

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Abstract

In the present article non-canonical marking of core arguments in the Baltic languages is in focus. This study presents some results made within the typological project on argument marking of two-place predicates with the special emphasis on lexical-semantic properties which influence the distribution of different patterns of marking. The pilot study is based on the typological questionnaire designed by the researchers from the Institute for Linguistic Studies in Saint-Petersburg (ILI RAN) for the purpose of the cross-linguistic analysis of attested argument structures of two-place predicates. The aim of this paper is to cover different types of non-canonical argument marking in comparison to canonical, as well as to touch upon whether the choice of a special case frame correlates with semantic properties of predicates.

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1. Introduction

The Baltic languages, together with some other languages belonging to the periphery of Standard Average European, especially the areally close East Slavic and Finnic languages, are well-known for the abundance of non-canonical marking of core arguments (that is not fitting the nominative-accusative pattern). Among the phenomena discussed in this relation one can mention dative subjects (Ozols 1967; Kārkliņš 1968; Stolz 1987; Valdmanis 1994; Lokmane 2002; Holvoet 2009; Zimmerling 2010a, b; Barðdal et al. 2012; Seržants forthcoming a), nominative objects (Kiparsky 1960, 1967, 1969; Larin 1963; Timberlake 1974; Ambrazas 1987; Holvoet 1993; Ambrazas 2001), differential subject and object marking (Nau, this volume), including special partitive marking (Seržants forthcoming b; Seržants, this volume), variation in nominal predicate marking, oblique subjects in non-finite constructions (Arkadiev 2011, Arkadiev 2012; Greenberg & Lavine 2006; Holvoet 2003, 2007; Lavine 2006, 2010), etc., see also Dahl & Koptjevskaja-Tamm 1992; Koptjevskaja-Tamm & Wälchli 2001; Holvoet & Semėnienė 2005; Holvoet 2011.

Various semantic and grammatical reasons underlying the abovementioned deviations from expected (canonical) nominative-accusative marking are usually interpreted as insufficiently fitting the prototype of transitivity (see Hopper & Thompson 1980; Næss 2007, among others). In addition, there are some lexical-semantic factors affecting the choice of a non-standard case frame, which is better described as determined by the "pure" semantics of the predicate—apparently taking into consideration resulting restrictions on the semantics of arguments—or construction-specified properties. It seems that the main difference between these types of factors can be formulated in terms of regularity. In other words, some of them result in non-canonically marking irrespective of the predicate, whereas many predicates just prefer non-canonical pattern in all the contexts, not only triggered by such conditions as aspectual or polarity ones.

In the present study, I focus on lexically determined non-canonical argument marking in the Baltic languages. The sample of 130 predicate senses was chosen in order to give an analysis of the distribution of canonical and non-canonical marking patterns across different lexemes. The aim of this study is to see which predicate meanings tend to induce non-canonical argument marking, which groups of marking patterns are attested in particular languages (what is the distribution of certain marking patterns across the predicates) and which semantic properties of predicates correlate with the type of marking.

The structure of the paper is as follows. Section 2 is concerned with the problem of transitivity in the Baltic languages, namely what can be considered as a prototypical transitive

clause and what can help to identify such clauses. In section 3, I will discuss the factors which can result in non-canonical argument marking. In section 4, the case study of two-place predicates is given, with some particular aspects of observed non-canonical patterns discussed in detail.

There have been several main sources of data used in this study. First, many examples have been obtained with the help of native speakers; next, the corpora have been actively used, particularly the Balanced Corpus of Modern Latvian (Līdzsvarots mūsdienu latviešu valodas tekstu korpuss: www.korpus.lv; the examples from this corpus are marked as "K"), the Corpora of Contemporary Lithuanian (Dabartinės lietuvių kalbos tekstynas: http://donelaitis.vdu.lt/), the parallel texts subcorpus of Russian National Corpus (http://ruscorpora.ru) and the corpus ParaSol (http://parasol.unibe.ch/).

2. The Baltic languages and the concept of transitivity

It is common among linguists to approach the problem of transitivity with the help of the notion of prototypical transitive situations (see Andrews 1985, 2007; Lazard 2002; Næss 2007, among others, see also Dowty 1991 for the well-known discussion of Proto-Agent and Proto-Patient). The well-known list of transitivity parameters introduced by Hopper and Thompson (1980) includes participant-related parameters (high transitivity implies two or more participants and is related to volitionality and agentivity, or agency, of A and full affectedness and high individuation of O[1]), predicate-related parameters (high transitivity is typical of actional, telic predicates) and clause-related (affirmative realis clauses are higher in transitivity), see Malchukov 2006 for an interesting account of transitivity parameters.

Givón (2001: 93) mentions the following three major components of a prototypical transitive event:

1. "the salient cause", an agentive participant with high degree of control, activity and volition;

2. "the salient effect", a patientive participant undergoing certain change of state; it is, in contrast to the salient cause, non-volitional, has no control over action and is typically inactive;

3. the verb, denoting a telic, perfective, realis and non-perfect event.

For Kittilä (2009: 356), canonical transitivity is associated with "a volitional and controlling agent and a thoroughly affected patient", whereas "[a]ny deviation from this prototype may result in a change of the denoted event." Thus, non-canonicity in argument marking may be triggered by different deviations from the prototypical, "canonical" transitive event properties (ibid.: 357). Næss (2007: 15) notes that operating with such properties helps "to define the core use of a particular clause type of most if not all languages: the transitive clause".

Transitivity in the Baltic languages is basically related to the accusative marking of the O-participant in a two-argument transitive clause (nominative-accusative case frame):

(1)	*Tom-s*	*uzrakstīj-a*	*vēstul-i*.	LATVIAN
	Toms-NOM.SG	write.PST-3	letter-**ACC.SG**	
	'Toms wrote a letter'.			
(2)	*Petr-as*	*suvalgė*	*obuol-į*.	LITHUANIAN
	Petras-NOM.SG	eat:PST.3	apple-**ACC.SG**	
	'Petras ate an apple'.			

Predicates normally agree with prototypically marked S and A-participants (nominative subjects) in number and gender, also including person marking on the predicate. There is no number distinction in third person finite verbs, but the agreement can be easily observed in other forms, and especially

[1] A and O are used after Dixon (1979), see (Hopper & Thompson 1980: 252), cf. also (Haspelmath 2011) for the discussion of A, O and other comparative notions in typology.

in participial forms:

(3) *Vai* ***tu*** *bieži* ***saaukstēj-ies****?* LATVIAN
Q thou often catch.cold.PRS-**2SG**
'Do you catch cold often?' (K)

(4) ***Esu*** *daug* ***dirb-us-i*** *su* *vaik-ais*. LITHUANIAN
be:PRS.**1SG** much work-PA.PST-**NOM.F.SG** with child-INS.PL
'I have worked much with children'(K)

(5) *Aivar-s* *ir* *nopirc-**is*** *grāmat-u*. LATVIAN
Aivars-NOM.SG be.PRS.3 buy-PA.PST.**NOM.M.SG** book-ACC.SG
'Aivars has bought a book'.

(6) *Erik-a* *nusipirk-us-**i*** *nauj-ą* *suknel-ę*. LITHUANIAN
Erika-NOM.SG buy-PA.PST-**NOM.F.SG** new-ACC.SG.F dress-ACC.SG
'Erika has bought a new dress'.

Predicate agreement is formally quite rigid and normally can be applied to the participants marked with nominative, regardless of their semantic role and even if semantic subjecthood properties somewhat contradict that. For instance, non-nominatively marked participants may be in fact more autonomous, in terms of Keenan[2] (1976: 312ff.). In (7) and (8), dative NPs fit some semantic criteria of subjecthood, but nevertheless it is nominative NPs which can trigger agreement. In (9), the NP *grāmatas* satisfies grammatical subjecthood, even though it has a semantic role different from those ones of prototypical subjects.

(7) *Man* ***ir*** ***dzim-uš-i*** *dvīņ-i*.
I:DAT be.PRS.3 be.born-PA.PST-**NOM.PL.M** twin-NOM.PL
'(lit.) Twins have been born to me'.

(8) *Man* ***ir*** ***bij-us-i*** ***jā-raksta*** *vēstul-e*.
I:DAT be.PRS.3 be-PA.PST-**NOM.SG.F** DEB-write letter-NOM.SG
'I had to write a letter'.

(9) *Grāmat-as* ***tiek*** ***pārdo-t-as***.
book-NOM.PL AUX.PRS.3 sell-PP.PST-**NOM.PL.F**
'The books are being sold'.

In personal passive voice constructions[3] the O-participants of corresponding active voice are usually promoted to the subject position, cf. also (9):

(10a) *Mēs* *cel-s-im* *māj-u*. LATVIAN
we.**NOM** build-FUT-1PL house-**ACC.SG**
'We'll build a house.' (K)

(10b) *Māj-a* *cel-t-a* *trīsdesmitaj-os*.
house-**NOM.SG** build-PP.PST-**NOM.F.SG** thirties-LOC.PL
'The house was built in the (18)30s.' (K)

(11a) *Mokin-ys* *skaito* *knyg-ą*. LITHUANIAN
pupil-**NOM.SG** read:PRS.3 book-**ACC.SG**
'The pupil is reading a book.' (Holvoet, Semėnienė 2004:36)

(11b) *Knyg-a* *yra* *skaito-m-a*.

[2] Keenan lists among autonomy properties autonomous reference, that is when the reference of a certain participant "must be determinable by the addressee at the moment of utterance" (ibid.: 313), topicality (318-319) and left-periphery position (319-320).

[3] That is, constructions where we have agreement with nominative subjects, as opposed to impersonal passives with "default" agreement.

book-**NOM.SG** be.PRS.3 read-PP.PRS-**NOM.SG.F**
'The book is being read' (ibid.)

In Lithuanian, the passive agent phrase is marked with genitive and is optional (12a-b); in Latvian, genitive agent phrases seem to be more typical for relative clauses rather than for normal finite clauses (13a); genitive agent phrases are found in relatively rare special agentive constructions, very similar to stative passives (13b), where only a *be*-auxiliary can be used, whereas dynamic passives with *tikt* are not allowed in such cases (13c). Genitive NPs cannot be put to the right periphery in Latvian (13d):

(12a) *Tėv-as / šuo / liet-us iš-gąsdino vaik-ą.* LITHUANIAN
father-**NOM.SG** dog.**NOM.SG** rain-**NOM.SG** VP-scare:PST.3 child-**ACC.SG**
'Father / a dog / the rain scared the child.'

(12b) *Vaik-as buvo iš-gąsdin-t-as tėv-o / šun-s / liet-aus*.
child-**NOM.SG** be:PST.3 PRV-scare-PP.PST-NOM.SG.M father-**GEN.SG** dog-**GEN.SG** rain-**GEN.SG**
'The child was scared by father / a dog / rain.' (Geniušienė 2006: 36-37)

(13a) *Tā ir tēv-a cel-t-a māj-a*. LATVIAN
that:NOM.SG be.PRS.3 father-**GEN.SG** build-PP.PST-NOM.SG.F house-NOM.SG
'This is a house built by (my) father.'

(13b) *Māja ir tēva celta*.
'The house is built by (my) father.'

(13c) **Māja tika tēva celta*.
'(the implied meaning) The house was built by (my) father.'

(13d) **Māja ir celta tēva*.
'(the implied meaning) The house is built by (my) father.'

In Latvian passive constructions, only original accusative O-participants can be promoted to the subject position. If the active construction has a predicate assigning non-accusative marking to the object, the corresponding passive constructions will be impersonal (i.e. showing a non-agreeing pattern, see above), with the default masculine singular form of the participle and the retention of an oblique case, see (Holvoet 2001: 159-160):

(14a) *Ienaidniek-i uzbruk-a pilsēt-ai.*
enemy-**NOM.PL** attack.PST-3 city-**DAT.SG**
'The enemies attacked the city'.

(14b) *Pilsēt-ai bij-a uzbruk-t-**s**.*
city-**DAT.SG** be.PST-3 attack-PP.PST-**NOM.SG.M**
'The city was attacked'.

(14c) **Pilsēt-a bija uzbruk-t-**a***.
city-**NOM.SG** be.PST-3 attack-PP.PST-**NOM.SG.F**

Intriguingly, Lithuanian is less restricted in such promotion of non-nominatively marked participants, which is possible for genitive and dative objects of some bivalent predicates. The first group is formed by such lexemes as *laukti* 'to wait for', *ieškoti* 'to look for', *vengti* 'to avoid', *reikalauti* 'to require', *nekęsti* / *neapkęsti* 'to hate', etc.; the second group comprises such dative-governing predicates as *vadovauti* 'to direct', *įsakyti* 'to order', etc. (Geniušienė 2006: 38).

Variation in case marking in passive constructions with originally genitive O-participants is defined by their referential properties (definiteness), see (ibid.):

(15a) *Mes* *laukė-me* *sveči-ų*.
we.NOM wait:PST-1PL guest-**GEN.PL**
'We waited (were waiting) for (the) visitors.'

(15b) *Buvo* *laukia-m-i* *sveči-ai*.
be.PST.3 wait-PP.PRS-**NOM.PL.M** guest-**NOM.PL**
'The visitors were (being) awaited.'

(15c) *Buvo* *laukia-m-a* *sveči-ų*.
be.PST.3 wait-PP.PRS-**N** guest-**GEN.PL**
'Some visitors were expected.' (ibid.)

(16a) *Jon-as* *vadovauj-a* *fabrik-ui*.
Jonas-**NOM.SG** manage:PRS.3 factory-**DAT.SG**
'Jonas manages the factory.'

(16b) *Fabrik-as* / **fabrik-ui* *buvo* *Jon-o* *vadovauja-m-as*.
factory-**NOM.SG** factory-DAT.SG be.PST.3 Jonas-**GEN.SG** manage-PP.PRS-**NOM.SG.M**
'The factory was managed by Jonas.' (Anderson 2009)

To sum up, in Latvian the possibility of passivization seems to be more closely related to prototypical transitivity, compared to Lithuanian (Holvoet & Judžentis 2004: 74): all the abovementioned non-standard "passivizing" predicates in Lithuanian seem to deal either with non-volitional situations with non-agentive A-participants or with situations where O-participants are not fully affected. However, even in Lithuanian the ability to promote oblique objects in passive constructions is apparently restricted only to a closed class of grammatically intransitive predicates. It seems that this fact fits the common treatment of transitivity as a prototype-based notion: clauses characterised by both coding and behavioural subject properties are presumably more transitive than those lacking either nominative coding or passive correlates.

The two modern standard languages differ considerably with respect to one more behavioural property. Lithuanian keeps regular genitive case alternations for S and O-participants, while in Latvian such case variation is now marginal, though it is attested in dialects (see Nau, this volume, for the account of such constructions in Latgalian, which turn out to be more similar to Lithuanian). The possibility of alternation may be determined by the referential properties of participants related to partitivity, see Seržant, this volume, for more details:

(17a) ***Sveči-ai*** *atvažiavo* *tik* *po* *piet-ų*. LITHUANIAN
guest-**NOM.PL** arrive:PST.3 only after dinner-GEN.PL
'The guests arrived only after dinner.'

(17b) *Pas* *mus* *atvažiavo* ***sveči-ų*.**
at we.ACC arrive:PST.3 guest-**GEN.PL**
'A lot of guests arrived to us.'

(18a) *Pasiim-k* *lik-us-į* ***maist-ą*** *į* *kelion-ę*.
take.along-IMP leave-PA.PST-ACC.SG.F food-**ACC.SG** to journey-ACC.SG
'Take the food left along for the journey.'

(18b) *Kiekvien-as* *į* *kelion-ę* *pasiėmė* ***maist-o*.**
everyone-NOM.SG to journey-ACC.SG take.along:PST.3 food-**GEN.SG**
'Everyone took some food along for the journey.' (Holvoet, Judžentis 2004: 64)

Another factor determining genitive alternations is negation: in Lithuanian, case marking, as in many other languages, depends to the polarity of the clause: again, both canonically marked S and

O-participants may alternate with genitive under negation (cf. Hopper & Thompson 1980: 276-277). Such genitive alternations are, however, prohibited for A-participants:

(19a) *Ne-matau* *Jon-o*.
NEG-see:PRS.1SG Jonas-GEN.SG
'I don't see Jonas.' (cf. Holvoet 2011: 18)

(19b) **Jon-o* *ne-mato* *manę*.
Jonas-GEN.SG NEG-see:PRS.3SG I:ACC
'Jonas doesn't see me.'

In fact, in Lithuanian regular case alternations (first of all, related to negative polarity) help to identify prototypical transitive predicates (cf. Holvoet & Judžentis 2004: 69). These alternations are triggered by special reference- or clause-related conditions. Therefore, we can assume once again that we presumably deal with a continuum of events with most transitive ones, on the one side, illustrating what is usually meant by canonical transitivity, and less transitive, recognized after the deviations in coding properties, if considering two-argument clauses. Those Lithuanian verbs with non-accusative objects which allow promotion to subject in passive clauses can be probably interpreted as non-canonically transitive (see ibid.: 74), whereas in Latvian the difference between two types of predicates (canonically transitive and other two-place arguments) seems to be more strongly pronounced. Together with semantic obligatoriness of a direct object, case marking and passive transformation criteria help to identify transitive constructions in the Baltic languages (ibid.: 75-76). It also seems that prototypical, or canonical transitive predicates raise no doubt in their canonicity; they are also very similar in what concerns the set of the corresponding properties observed for this class in each language. In terms of canonical typology, as defined by Corbett (2007: 9), these predicates are "clearest, indisputable", cf. the statement assigned to J. Nichols cited in the same paper: "Canonical constructions are all alike; each non-canonical construction is non-canonical in its own way". Næss, in its turn, argues that "the prediction is not that all situations corresponding to the semantic transitive prototype should always be expressed in formally transitive clauses, but rather that simple underived clauses should all show the same formal structure, and the same range of options for structural alternations" (2007: 17).

3. Non-canonical argument marking in the Baltic languages

Assuming that Baltic transitive clauses can be characterised by the properties discussed in the previous section, we can have a look at other patterns but nominative-accusative to see whether and how they correlate with deviations in semantic transitivity. As has been mentioned above, Lithuanian and Latvian abound in non-canonical argument marking patterns. But basically, these languages seem to conform to the core of features concerning argument structures which are common for SAE languages, see Haspelmath (2001a: 54-55): they are accusative; they have predicate agreement with S and A; they have a clear contrast of direct and indirect objects, overtly expressed by the preserved morphological dative/accusative cases; finally, various semantic roles may be attested for the syntactic subject.

In his typological study of European languages, Haspelmath (ibid.: 56) mentions three types of conditions resulting in non-canonical marking of core arguments; most of them, actually, have been mentioned as transitivity-related parameters by Hopper, Thompson (1980), as well as by other researchers. *Reference-related conditions* deal with referential properties of arguments, such as definiteness, animacy, involvement of the participants, see also Kittilä & Malchukov 2009. In many languages these properties determine the choice of marking strategy, cf. differential object marking in Spanish, where the additional marking device appears in the contexts where a direct object gets an special marker if it is animate:

(20a) *Ayer* *vi* *tu* *libro*. SPANISH
yesterday saw.1SG your book
'Yesterday I saw your book.'
(20b) *Ayer* *vi* ***a*** *tu* *hermana.*
yesterday saw.1SG ACC your sister
'Yesterday I saw your sister.' (Haspelmath 2001a: 56)

The use of the independent partitive genitive (see Seržant, this volume) is another example of referentially determined non-canonical marking of core participants, cf. (21b) in contrast to (21a), see also (18a-b) above:

(21a) *Aš* *nupirkau* *butel-į* *vyn-o.* LITHUANIAN
I.NOM buy.PST:1SG bottle-**ACC.SG** wine-GEN.SG
'I bought a bottle of vine.'
(21b) *Aš* *nupirkau* *šokolad-o*.
I.NOM buy.PST:1SG chocolate-**GEN.SG**
'I bought (some) chocolate.'

Among *clause-related conditions*, one could first of all mention negation, partly discussed in the previous section:

(22a) *J'ai* *vu* ***des*** ***fourmis***. FRENCH
I AUX seen ART ant:PL
'I saw some ants.'
(22b) *Je* *n'* *ai* *pas* *vu* ***de*** ***fourmis***.
I NEG AUX NEG seen GEN ant:PL
'I didn't see any ants.' (ibid.: 58)

Aspectuality, being closely related to definiteness, is an important factor in determining the choice of case marking devices; such close connection between aspectual properties of the clause and object case marking is well-known for the Finnic languages:

(23a) *Soili* *luk-i* ***lehte-a***.
Soili.NOM read-PST(3SG) paper-PART
'Soili was reading the paper'.
(23b) *Soili* *luk-i* ***lehde-n***.
Soili.NOM read-PST(3SG) paper-ACC
'Soili read the paper' (Nelson 1998: 157).

For the Baltic languages (mainly Lithuanian, to a lesser extent Latgalian, only marginally Latvian), the conditions of these two types are highly relevant. However, not all of the occurring non-canonical argument structures can be covered by reference and clause-related conditions. In fact, such conditions are not literally non-canonical, as in lack of the factors triggering non-canonical case marking we get a canonical one for the same predicate. But there is another factor, namely lexically determined non-canonicity, or, in terms of Haspelmath, *predicate-related conditions*, which will be discussed in detail in next section. In the languages of the world, it is common for some groups of predicates to be characterised by non-canonical argument marking, even if *reference* and *clause-related conditions* can't trigger its appearance. For example, dative marking of O-like participants is not rare for bivalent predicates in European languages; many of such

predicates can be treated as interaction verbs, which, interestingly, somewhat violate semantic conditions for prototypical transitivity, see Blume (1998) for the discussion. If we take into consideration the data given in Haspelmath (2001a: 59) and add some examples from the Baltic languages (Table 1), we can see, indeed, that there seems to be a certain regularity in correspondences between semantic units and morphosyntactic marking; some exceptions occur, but they are apparently quite marginal to doubt the existence of this semantic predicate class.

Table 1. Dative-licensing interaction verbs in several European languages

	German	**Polish**	**Hungarian**	**Latvian**	**Lithuanian**
'to answer'	*antworten*	*odpowiadać*	*felel*	*atbildēt*	*atsakyti*
'to wave'	*winken*	*machać*	*integet*	*māt*	*mojuoti*
'to congratulate'	*gratulieren*	*gratulować*	*gratulal*		
'to thank'	*danken*	*dziękować*		*pateikties*	*dėkoti*
'to threaten'	*drohen*	*zagrażać*		*draudēt*	*grėsti*
'to obey'	*gehorchen*		*engeldelmeskedik*	*klausīt*	
'to serve'	*dienen*	*służyć*		*dienēt*	*tarnauti*
'to help'	*helfen*	*pomagać*	*segít*	*palīdzēt*	*padėti*

Another semantic class of predicates well-known for their preferences for non-canonical morphosyntactic patterns are experiential ones. It is not surprising, as such lexemes do not fit prototypical transitivity in several respects: they are not typical actions and tend to be atelic and typically non-volitional. Participants, in their turn, do not conform the requirements as well: A-like participants are not really agentive, whereas O-like participants are not fully affected.

Due to the abovementioned properties of experiential predications, considerable variation in the marking of core arguments is attested in such clauses across languages. Haspelmath (2001a: 60) mentions three relevant types of experiencer marking: *agent-like*, *dative* and *patient-like*. For example, nominative experiencers are defined as "a fairly typical SAE pattern with French and English in the center, Celtic <...> at the western margin, Balto-Slavic, Finno-Ugrian and Caucasian at the eastern margin, and fairly gradual transitions within the macro-areas" (Haspelmath 2001b: 1496, see also Haspelmath 1998: 276-277). Latvian and Lithuanian have some nominative-experiencer verbs (24a-b), but patterns different from NOM-ACC case frame are also attested for experiential predicates: dative subject constructions are numerous in the Baltic languages, especially in Latvian (25a-b); accusative experiencers, however, seem to be highly marginal, apparently used in constructions with causative verbs or metaphorically interpreted highly transitive predicates (26a-b):

(24a) *Māt-e* *mīl* *darb-u*. LATVIAN
mother-**NOM**.SG like:PRS.3 работа-**ACC**.SG
'Mother likes (her) job.'

(24b) *Petr-as* *mėgsta* *arbat-ą*. LITHUANIAN
Petras-**NOM**.SG like:PRS.3 tea-**ACC**.SG
'Petras likes tea'.

(25a) *Jān-im* *garšo* *tēj-a*. LATVIAN
Janis-**DAT**.SG like.PRS.3 tea-**NOM**.SG
'Janis likes tea.'

(25b) *Petr-ui* *patink-a* *šit-ie* *marškini-ai*. LITHUANIAN

Petras-DAT.SG like-PRS.3 this-NOM.PL shirt-NOM.PL
'Petras likes this shirt.'

(26a) *Kas* *tevi* *satrauc?* LATVIAN
what.NOM thou.ACC disturb.PRS.3
'What does disturb you?'

(26b) *Miest-as* *sukrėtė* *Petr-ą.* LITHUANIAN
city-NOM.SG amaze:PST.3 Petras-ACC.SG
'Peter was amazed by the city.'

The study by Bossong (1998) has shown that European languages differ considerably as to morphosyntactic marking of experiencers. The languages belonging to the core of the SAE area (Germanic, Romance, and some others) tend to prefer canonical patterns with S/A-like marking in the clauses with the sememes chosen for the sample consisting of 10 items (cognition, sensation and emotion predicates). Interesting conclusions can be made, if one looks at the correlations between certain predicates and the preferable types of marking attested in the sample. Haspelmath (2001a: 63-64) shows that cognition predicates ('to see'[4], 'to forget', 'to remember') presumably are more similar to canonical transitive predicates, as they are characterised by A-type marking of experiencers, while typical emotion predicates ('to be glad', 'to be sorry', 'to like') are found at the opposite pole. The intermediate position is taken by sensation predicates ('to be hungry', 'to be thirsty', 'to be cold', 'to have a headache'). Malchukov elaborates several hierarchies proposed by different scholars in constructing a semantic map where he establishes the order "perception—cognition—emotion—sensation", where perception predicates are put closer to the transitive prototype, while sensation ones are put further from that (2005: 113).

4. Variation in (non-)canonicity: a case study

Some researchers who have addressed the problem of lexically-driven non-canonical argument marking tried to construct hierarchies allowing to relate semantics of predicates with their preferences of either what is considered to be interpreted as transitive pattern or different patterns deviating from this prototype. Tsunoda (1981, 1985) suggests that there is a semantically-based verb-type hierarchy that can serve as a scale of transitivity: it tries to place predicates according to the degree of their compliance with transitive events properties and the evidence found in multiple verb-splits and argument marking strategies distribution across predicate types in the languages of the world.

The hierarchy, as given in (Tsunoda 1985: 388), looks as follows:

1a) DIRECT EFFECT (*kill* / *break* subtype) > 1b) DIRECT EFFECT (*hit* / *shoot* subtype) > 2a) PERCEPTION (*see* subtype) > 2b) PERCEPTION (*look* subtype) > 3) PURSUIT (*search* / *wait*) > 4) KNOWLEDGE (*know* / *understand* / *remember* / *forget*) > 5) FEELING (*love* / *like* / *want* / *need*) > 6) RELATIONSHIP (*possession* / *lack* / *resemblance*, etc.) > 7) ABILITY (*capable*, *good*, etc.)

This hierarchy does not aim to reflect, for example, differences in coding properties, though that really works for some languages (see Malchukov 2005 for the detailed discussion). If we take into consideration the Baltic languages, we can easily see that "typically transitive" marking patterns can be attested even for those predicates which are supposed to deviate considerably from a transitive prototype. Moreover, if we look at case frames only, it might appear that just a decrease in affectedness is able to result in a non-canonical marking pattern, as with verbs of contact (27a), whereas such deviation is not observed for hardly ever transitive possessive predicates, e.g. 'to have' (27b):

[4] It is not quite evident for me why this is a cognition predicate, rather than a sensation one.

(27a) *Petr-as* *smog-ė* *Marij-ai*. LITHUANIAN
P.-**NOM**.SG hit-PST.3 M.-**DAT**.SG
'Petras hit Maria.'
(27b) *Petr-as* *turi* *automobil-į*.
P.-**NOM**.SG have:PRS.3 car-**ACC**.SG
'Peter has a car'.

Of course, in this very case the preservation of nominative-accusative case frame may be explained in relation to the original meaning of the verb *turėti* 'to have' (still kept in the modern language), cf. Latvian *turēt* 'to hold', cf. the discussion of case pattern inheritance given by Malchukov (2005: 110-111). Nevertheless, if we consider other properties, such as subject promotion in passive constructions and, actually, the possibility to be passivised, then it appears that behavioural properties considerably suit the hierarchy, as Lithuanian intransitive verbs, allowing for subject promotion, are only partly deviant from canonical transitivity, and therefore are found closer to the left pole. In any case, there is hardly some doubt about the class of prototypical transitive verbs (the type 1a in the abovementioned hierarchy), which seems to represent quite a consistent class, cf. "it seems to be the case that in all languages, two-argument verbs with typical agents and patients are treated in the same way, i.e. we never find significant variation in the coding of verbs like 'kill', 'break', 'cut', 'beat', 'burn', 'grind', 'saw', 'wash'" (Haspelmath 2011: 547).

Another hierarchy of "semantico-syntactic types of predicates" has been introduced by Onishi (2001: 23-25), who singles out five groups of the predicates disposed to the use of non-canonical marking:

Class I: One- or two-place (Primary-A) verbs with affected S (or A), e.g. 'be chilled', 'have a headache', 'be sad', 'be surprised'.

Class II: Two-place (Primary-A/B) verbs with less agentive A (or S)/ less affected O (or E), e.g. 'see', 'know', 'like', 'look for', 'follow', 'help', 'speak to', 'resemble'.

Class III: Two-place Secondary verbs with modal meanings, e.g. 'want', 'need', 'can', 'try', 'seem'.

Class IV: Intransitive/transitive verbs expressing 'happenings'. (Usually have canonically marked counterparts with agentive meanings.)

Class V: Verbs of possession, existence and lacking.

It seems that even though the general idea of such classification is clear, it is not always evident how to put a certain verbal lexeme into a certain class and how to define its generalized "meaning" (subtype, e.g., perception / cognition / liking, etc.).

In order to focus on the Baltic data and analyze correspondences between morphosyntactic patterns and predicate semantics with a higher degree of accuracy, I used a questionnaire compiled by the researchers from the Institute for Linguistic Studies (Russian Academy of Sciences, Saint-Petersburg, Russia) for the typological project on non-canonical argument marking in two-argument predications, see Say 2009; Say 2011). The questionnaire consists of 130 stimuli, given in Russian (in some cases English translations are used as well), see Appendix 1 for the predicate list; translations are based on the data from dictionaries, corpora and examples obtained from native speakers with their comments and evaluations.

In line with the project mentioned, semantic roles have been ignored for the purposes of the present study: instead, the participants are conventionally labeled as X and Y, where X corresponds to a more volitional participant with a higher control over the situation; it is animate in many cases:

X is ill with Y (Rus. X ***bolen*** Y-om$_{INS}$)

X is washing Y (Rus. X ***moet*** Y_{ACC})
X influences Y (Rus. X ***vlijaet*** na Y_{ACC}), etc.

In order to smooth the effect of different *grammatical* factors determining the choice of non-canonical patterns, the stimuli were constructed in such a way that parameters correlating with low transitivity should not result in "non-trivial" argument marking observed. The following criteria were taken into consideration:

- stimuli are affirmative statements;
- participants are individuated and specified (fully involved), if possible;
- realis contexts are preferred;
- syntactically, stimuli are finite, independent clauses;
- aspectuality-related conditions are reduced to the extent possible: perfective forms have been chosen for telic predicates, whereas imperfective (present) forms have been chosen for atelic predicates;
- highly referential participants, such as personal pronouns, are avoided; ordinary noun phrases are used instead;
- sentential arguments are avoided.

The abovementioned restrictions should result in getting purely *lexically*-determined properties of predicates in what concerns the choice of argument marking strategy. As we operate with predicate semantics, one of the perspectives of this study is the analysis of occurrences of more and less canonical predicates, and particularly, the following related problems:

- which predicate senses tend to be expressed by verbs (opposed to non-verbal predicates) more frequently;
- which (and how) sets of predicates can be singled out according to the usage of the same marking of their participants;
- which predicates tend to be transitive / intransitive across languages.

Such parameters as word order, verbal agreement with core participants, etc. have been taken into consideration as well.

In the process of work with particular languages, several difficulties of different nature have been met. Among them is the occurrence of translational equivalents with non-verbal or complex (periphrastic) predicates, with incorporation attested for some stimuli (cf. Lazard 2002: 158-159), one-to-many correspondences, when more than one predicate and/or pattern are available for a certain stimulus, some other problems with obtaining direct translational correspondence for the stimulus in the target language (in such cases one has to add/reduce something to/in the stimulus sentence), and no semantic correspondence at all (for some "rare" predicates; they are put to the sample because of their probable predisposition to non-canonical argument marking). It should be noted that similar problems are not rare for typological studies: for example, Dahl (1985: 45ff.) mentions some of them, along with possible solutions, e.g., in the cases of multiple translational correspondences, simpler predicates should be preferred to more complex ones. In my sample, the role of frequency is important, as in case of several lexemes corresponding to a predicate sense more frequent ones are first taken into consideration.

Before discussing particular argument marking patterns, one should briefly sketch the Baltic case systems briefly. There are five morphologically distinct case grammemes in Latvian and six in Lithuanian (vocative forms are not taken into consideration), see Andronov 2001 for details. Sound changes, together with analogical restructuring within nominal paradigms, led to the loss of instrumental as a separate case in Latvian. Another phenomenon, usually attributed to the

abovementioned development, is the non-trivial distribution of case marking in prepositional phrases in Latvian, which depends on number: the case assigned by prepositions is "neutralized" in the plural, where we have dative marking regardless of the case required in singular, see Holvoet 2010 for a detailed discussion. In other words, the case marking pattern is better observed in singular NPs:

(28) ***pēc*** *gad-a* / ***pēc*** *div-iem* *gad-iem* LATVIAN
after year-**GEN**.SG after two-**DAT**.PL year-**DAT**.PL
'in a year' / 'in two years'

(29) *mīlestīb-a* ***pret*** *māt-i* / ***pret*** *cilvēk-iem*
love-NOM.SG against mother-**ACC**.SG against man-**DAT**.PL
'love for one's mother / people'

Latvian locative, in contrast to the Lithuanian one, is semantically less specialized: it occurs in both locative and illative contexts, where Lithuanian can choose from several other possibilities, cf. the following correspondences extracted from the parallel texts (Lithuanian-Latvian parallel corpus LiLa, accessed at http://www.korpuss.lv/lila/); purely locative meanings seem to be captured by Latvian locative, cf. one-to-one correspondence of 28 entries of *miške* and 28 entries of *mežā* in corresponding Latvian translations (100% precision):

(30) Latvian: *mežā* (forest:LOC.SG)
Lithuanian: *miškan* / *girion* (synthetic illative)
į mišką / *į girią* (analytic illative)
miške / *girioje* (synthetic locative)

Another difference lies in the apparent replacement of Latvian non-prepositional adverbal genitives with prepositional phrases (see Berg-Olsen 1999 for the details), whereas in Lithuanian adverbal genitives are not rare:

(31) *baidīties* GEN > *baidīties* ***no*** GEN 'to be afraid of'; LATVIAN
vairīties GEN > *vairīties* ***no*** GEN 'to avoid';
ilgoties GEN > *ilgoties* ***pēc*** GEN 'to long for'

Besides that, Lithuanian and Latvian have different types of most frequent possessive constructions, which is reflected in completely different case marking patterns (Latvian lack a verb with the meaning 'to have' and uses a special construction with 'to be' instead)[5]:

(32a=27b) *Petr-as* *turi* *automobil-į*. LITHUANIAN
P.-**NOM**.SG have:PRS.3 car-**ACC**.SG
'Peter has a car'.

(32b) *Jān-im* *ir* *mašīn-a*. LATVIAN
J.-**DAT**.SG be.PRS.3 car-**NOM**.SG
'Janis has a car.'

In the data obtained, the subset of canonically-marked transitive predicates can be relatively easily singled out, especially if behavioural properties are ignored, with coding properties in the focus. In the cases where variation in case marking is attested, certain decisions should be taken. For example, in some cases we can get two potentially suitable argument marking patterns for the same

[5] I am thankful to Axel Holvoet who pointed out that Lithuanian can also use the DAT-NOM pattern in some cases, though the opposite is not true for Latvian.

stimulus, cf. ‘to touch Y’ (Rus. *dotronut’sja* ***do*** Y_{GEN}) in Lithuanian: (*prisi*)*liesti*, (*prisi*)*lytėti* **X_{NOM} - prie Y_{GEN}** vs. (*pa*)*liesti*, (*pa*)*lytėti*) **X_{NOM} - Y_{ACC}**:

(33a)	*Petr-as*	*prisilietė*	***prie***	*sien-os*.
	Petras-NOM.SG	touch:PST.3	PRIE	wall-GEN.SG
(33b)	*Petr-as*	*palietė*	*sien-ą*.	
	Petras-NOM.SG	touch:PST.3	wall-ACC.SG	
	‘Petras touched the wall.’			

In such cases, though English translations are somewhat misleading, we are first of all looking for an intransitive pattern, if the original Russian verb is intransitive; therefore, we choose the more similar Lithuanian equivalent, even though the ignored one seems to be transitive: if we aimed to find corresponding structures for Russian transitive (*po*)*trogat*’ ‘to touch’, the opposite should be true. This is, of course, purely technical compromise, in order to smooth effects from synonymy coming on the scene.

Another example, again from Lithuanian, deals with the predicate ‘to sink’. There are two translational equivalents, again, suitable for Russian *tonut*’ ***v*** Y_{LOC}:

(34a)	*Pliausk-a*	*nuskendo*	*vanden-yje*.	
	log-NOM.SG	sink:PST.3	water-LOC.SG	
(34b)	*Pliausk-a*	*nugrimzdo*	*į*	*vanden-į*.
	log-NOM.SG	sink:PST.3	Į	water-ACC.SG
	‘The log sank in the water’.			

In fact, (*nu*)*skęsti* should be chosen not only because of the clear locative marking correspondence, compared to the Russian stimulus, but also because of the semantic speciality of (*nu*)*grimzti*, which meaning is better rendered as ‘to sink *into*’ rather than ‘to sink *in*’. Interestingly, it seems that (*nu*)*skęsti* is easily used intransitively (as a monovalent verb), cf. *Mūsu laivas nuskendo* ‘Our boat sank’, while “illative” noun phrases are very rarely omitted in sentences with (*nu*)*grimzti*.

Besides, intransitive predicates have been chosen, if they occur more frequently, cf. Latv. *iekost* Y_{DAT} (more frequent) vs. *sakost* Y_{ACC} ‘to bite Y’. Verbal predicates are preferred to non-verbal ones, cf. Latv. *baidīties* / (*būt*) *bail* ***no*** Y_{GEN} ‘to be afraid of Y’.

If we take only those 124 predicates which neither present any difficulties for translations nor seem to be rendered by non-verbal lexemes and try to look at correlations between transitive (in terms of coding properties) and intransitive predicates in Lithuanian and Latvian, we can see that (in)transitivity can be correctly identified for one of the Baltic languages on the basis of the other one with the 84% accuracy. This compares, for instance, to the 75% accuracy in the case of the Lithuanian-French sample, see Say 2011: 427, or for the 88% accuracy calculated for Latvian and Russian, considering the same 124 predicates.

Table 2. Correspondence between transitive and intranstive predicates

		Lithuanian	
		vt	vi
Latvian	vt	49	14
	vi	6	55

Interestingly, Latvian seems to have a higher coefficient of transitivity, compared to Lithuanian, according to the data analyzed, with 63 Latvian transitive (NOM-ACC) predicates (0.5) vs. 55

Lithuanian predicates (0.44)[6]. The corresponding coefficients of intransitivity could be computed for both languages, amounting to 0.5 for Latvian and 0.56 for Lithuanian, cf. the preliminary data for other languages (Say 2011: 425): Estonian (0.65), Ingrian Finnish (0.64), Russian (0.54), German (0.42), Japanese (0.42), Basque (0.38), Guarani (0.30).

In Table 3[7], the argument marking patterns attested in the sample for Lithuanian and Latvian are summarised. NOM-DAT and DAT-NOM patterns are singled out as two different patterns, because in many cases they differ in what is more natural word order, together with different X- and Y-participants alignments.

Table 3. Core argument marking patterns in the Baltic languages

LATVIAN		LITHUANIAN	
NOM + ACC	63 (49%)	NOM + ACC	55 (43%)
NOM + DAT	17 (13%)	NOM + DAT	11 (9%)
		NOM + GEN	13 (10%)
		NOM + INS	12 (9%)
NOM + LOC	5 (4%)	NOM + LOC	1
ACC + par ACC	1	NOM + NOM	1
DAT + NOM	5 (4%)	DAT + NOM	2
DAT + GEN	2	DAT + GEN	3
DAT + ACC	1	DAT + ACC	1
NOM + ar ACC	11 (7%)	NOM + su INS	8 (6%)
NOM + no GEN	8 (6%)	NOM + nuo GEN	4
		NOM + iš GEN	2
NOM + uz ACC	5	NOM + į ACC	5
		NOM + ant GEN	4
NOM + par ACC	8 (6%)	NOM + apie ACC	3
		NOM + dėl GEN	1
NOM + pie GEN	1	NOM + prie GEN	2
NOM + pēc GEN	2		
		NOM + prieš ACC	1
Number of predicates	129		129

One can easily see that even in such restricted data Lithuanian seems to use all the six cases for non-prepositional marking of Y-participants in constructions with nominative subjects (X-participants). Latvian, in its turn, is not only lacking non-prepositional instrumental, but also avoids adverbal genitives, as has been mentioned before. In addition, the range of prepositional marking patterns seems to be more modest in Latvian, compared to Lithuanian.

As for non-canonically marked X-participants, they are attested in the contexts well-known for their disposition for reduced volitionality and agentivity of the first argument. With an exception of 'to be called' with highly atypical Latv. X$_{ACC}$ - ***par*** Y$_{ACC}$ and Lith. X$_{NOM}$ - Y$_{NOM}$ patterns, non-canonical subjects in polyadic predications in the Baltic languages can be expectedly called dative subjects. In some cases, it is the Y-participant which gets nominative marking, but in fact, it corroborates the assumption that we evidently deal with intransitivity in such contexts.

In the Baltic languages, both participants can be non-canonically marked (DAT-GEN), but this pattern is rather exceptional. Such predicates are placed closer to the intransitivity pole at the hierarchy by Tsunoda, especially if we take into consideration two-place predicates: these are, first of all, predicates of lacking (Latv. *trūkt*, Lith. *trūkti* 'to lack') or their opposites (Latv. *pietikt*, Lith.

[6] Among 6 disregarded predicates no transitive patterns seem to occur in the languages under consideration; therefore, the ratio of transitive predicates will be comparable even in the whole sample of 130 sentences.

[7] Only one predicate, rendering 'to be surprised', is excluded here, compared to the original questionnaire.

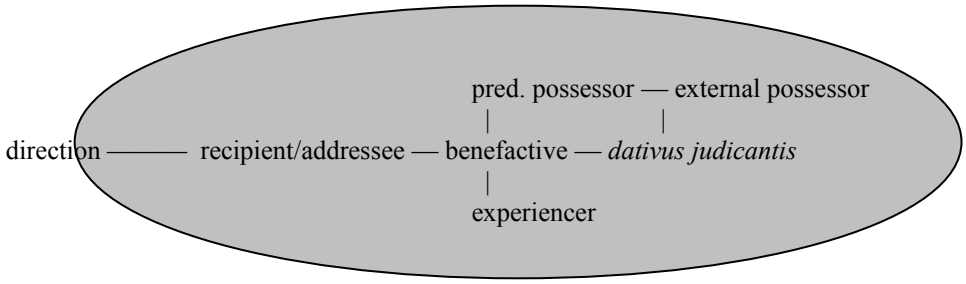
pakakti ‘to suffice’), as well as semantically close verbs of need (Lith. *reikėti*). In addition, the Lithuanian verb *skaudėti* ‘to hurt’ is idiosyncratic in its morphosyntactic properties (with DAT-ACC and DAT-NOM case frames available for this predicate). More data on Lithuanian non-canonical marking patterns are provided by Bjarnadóttir & Wiemer (this volume).

Dative subjects in the Baltic languages are attested for those predicates which are, as typological data show, disposed to non-canonical marking, among them Say (2011: 428) mentions such sememes as ‘to like’, ‘to hurt’, ‘to lack’, ‘to suffice’. For Latvian, such predicates as possessive *būt* ‘to have’, cf. (32b), and *palikt* ‘to be left’ (35) should be mentioned. Their deviation from canonical marking nicely fits the hierarchies proposed by Tsunoda and Onishi, where predicates of possession are mentioned among typically intransitive. Interestingly, Lithuanian, even differing from Latvian in respect to a basic possessive construction, uses the verb (*pasi*)*likti* ‘to be left’ in a completely similar way, namely with a DAT-NOM case frame:

(35) *Petr-ui* *lik-o* *dešimt* *doleri-ų.* LITHUANIAN
Petras-DAT.SG be.left-PST.3 ten dollar-GEN.PL
‘Petras has 10 dollars left’.

Now let us turn to the non-canonical marking of Y-participants. As can be seen at once from Table 3, Latvian is very rich in dative complements patterns. In fact, Latvian dative can be found in all the functions captured by the semantic map introduced in (Haspelmath 1999: 130), cf. Figure 1:

Figure 1. Latvian dative and its functions[8]



If we compare NOM-DAT verbs from the sample for both Baltic languages, we notice that differences between Latvian and Lithuanian with respect to this pattern are very strong: only 9 out of 17 Lithuanian equivalents (53%) clearly correspond to Latvian NOM-DAT predicates in the sample, whereas only two Latvian dative predicates have a case frame which cannot be predicted, based on the Lithuanian predicate/marking correspondence (patterns with Y-participants marked with dative get a sign “+” in the table; Russian dative predicates are emphasized with bold):

Table 4. NOM-DAT predicates in the Baltic languages

RUSSIAN	TRANSLATION	LATVIAN		LITHUANIAN	
byt’ poxožim na	RESEMBLE	*būt līdzīgam*[9]	+	*būti panašiam*	NOM - į ACC
verit’	BELIEVE	*ticēt*	+	*tikėti*	NOM - INS
govorit’	TELL	*teikt*	+	*(pa)sakyti*	+
doverjat’	TRUST	*uzticēties*	+	*pasikliauti*	NOM - INS
dotragivat’sja do	TOUCH	*pieskarties*	+	*(prisi)liesti*	NOM - prie GEN
kusat’	BITE	*(ie)kost*	+	*(į)kąsti*	+

[8] The semantic map is reproduced after Haspelmath 1999 in a slightly modified version.

[9] Cf. also a less frequent verbal predicate *līdzināties* with the same case frame.

l'stit'	FLATTER	*glaimot*	+	*meilikauti*	+
napast'	ATTACK	*uzbrukt*	+	*(už)pulti*	NOM - ACC
otvečat'	ANSWER	*atbildēt*	+	*atsakyti*	+
podxodit' k	SUIT	*piestāvēt*	+	*tikti*	+
pomogat'	HELP	*palīdzēt*	+	*padėti*	+
proigryvat'	LOSE TO	*zaudēt*	+	*pralaimėti*	+
sympatizirovat'	SYMPATHIZE WITH	*simpatizēt*	+	*simpatizuoti*	+
sledovat'	FOLLOW	*būt līdzīgam*	+	*sekti*	NOM - ACC
slušat'sja	OBEY	*klausīt*	+	*klausyti*	NOM - GEN
soglašat'sja s	AGREE WITH	*piekrist*	+	*sutikti*	NOM - su INS
udarit'	HIT	*(ie)sist*	+	*smogti*	+
zavidovat'	ENVY	*(ap)skaust*[10]	NOM - ACC	*pavydėti*	+
rukovodit'	LEAD	*vadīt*	NOM - ACC	*vadovauti*	+

Interestingly, four experiential NOM-DAT predicates ('to believe', 'to trust', 'to sympathize', 'to envy') have human Y-participants, which is apparently even more deviating from prototypical transitivity than in the cases with inanimate, completely non-volitional objects. Another parameter of deviation is partial affectedness, observed in examples with such predicates as 'to bite', 'to hit', 'to attack', cf. the observations made by Næss (2009: 574-575), concerning such properties related to dative NP marking as low transitivity and affectedness, associated to the typically animate participant.

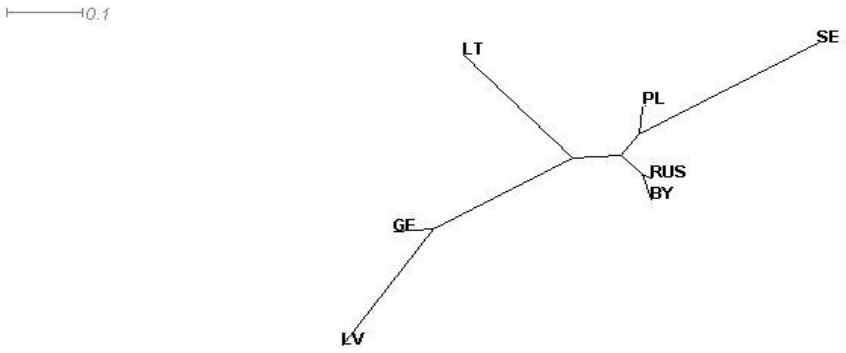
Considering 19 predicates in Table 4, I have conducted a small-scale areal research. In addition to Russian and the Baltic languages, data from Belarusian, Polish, German and Swedish were taken into consideration, see Appendix 2. The data obtained were analysed and visualized with the help of SplitsTree software[11] (Huson & Bryant 2006), and actual (dis)similarities across the abovementioned languages can be observed in Figure 2. These data show that in its dative object marking Latvian is apparently similar to German, while Lithuanian is closer to Slavic languages; however, whether such similarity can be explained by language contact, is an open question. In any case, German seems to be quite dissimilar even to the neighbouring Polish, which makes these data even more interesting.

Figure 2. On some dative object marking predicates in the Circum-Baltic languages[12]

[10] I define the case frame of this predicate as NOM-ACC, even though a non-prefixed *skaust* is noticeable for argument alternations, with a NOM-DAT pattern attested in addition. Moreover, *skaust* seems to be less frequent, according to the corpus data.

[11] Available at http://www.splitstree.org/.

[12] Legend: RUS—Russian; PL—Polish; GE—German; LT—Lithuanian; LV—Latvian; BY—Belorusian; SE—Swedish.



Intriguingly, the predicates ‘to bite’ and ‘to hit’ demonstrate non-canonical marking of the Y-participants exactly in the Baltic languages; other languages in the areal sample prefer non-dative patterns. This marking is even more interesting, if we consider the derivational structure of these predicates: *ie-* and *į-*prefixed verbs are often compatible with illative marking of object NPs (3 of 5 predicates for the NOM-LOC pattern, cf. 38-39); however, we still have dative case assignment for verbs of contact with these prefixes, see (36-37):

(36) *Vald-is* ***ie****sit-a* *Jur-im*. LATVIAN
Valdis-NOM.SG hit.PST-3 Juris-**DAT**.SG
‘Valdis hit Juris.’

(37a) *Mik-um* ***ie****kod-a* *sun-s*.
Mikus-**DAT**.SG bite.PST-3 dog-NOM.SG
‘A dog bit Mikus.’

(37b) *Šuo* ***į****kand-o* *Petr-ui*. LITHUANIAN
dog:NOM.SG bite.PST-3 Petras-**DAT**.SG
‘A dog bit Petras.’

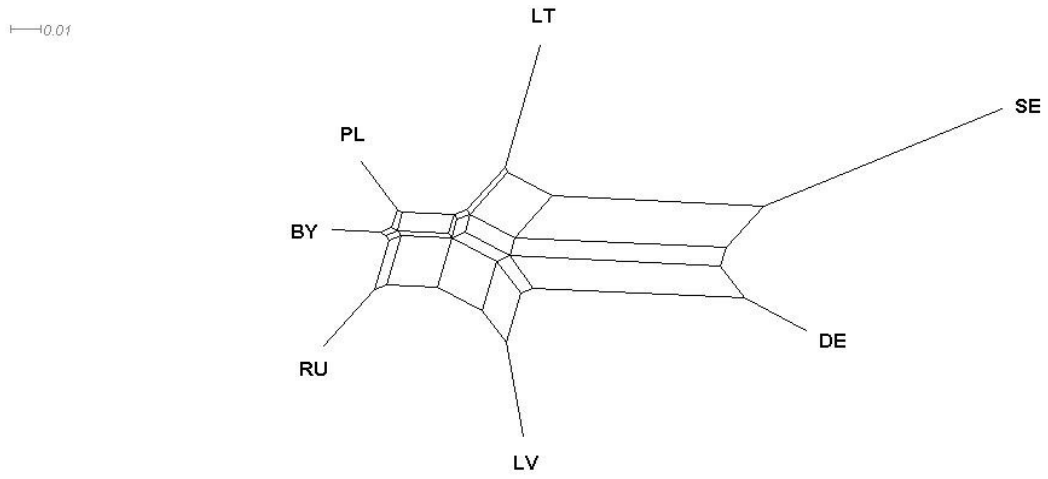
(38) *Jān-is* ***ie****mīlējās* *Ann-ā*. LATVIAN
Janis-NOM.SG fall.in.love:PST-3 Anna-**LOC**.SG
‘Janis fell in love with Anna.’

(39) *Petr-as* ***į****ėj-o* *į* *nam-ą*. LITHUANIAN
Petras-NOM.SG enter.PST-3 **Į** house-**ACC**.SG
‘Petras entered the house.’

Not surprisingly, a set of highly transitive predicates can be singled out for the languages under consideration. Relying on coding parameters, 30 out of 130 predicates for 8 languages (Russian, Latvian, Lithuanian, Belarusian, Polish, German, Swedish, Ingrian Finnish) are uniformly characterized by the case marking typical of prototypical transitive clauses (numbers 5, 10, 11, 18-19, 21, 23-24, 30, 32, 40, 43, 47, 50-51, 57, 60, 64, 75, 78, 81-84, 90, 100-101, 110, 123, 128, see the appendix).

Regarding the distribution of transitive and intransitive verbs in concrete languages (only coding properties are counted), we can see that the Slavic languages form a clear uniform group according the distribution of patterns across predicates, with Lithuanian clustering not far from Polish, whereas Latvian is somewhat closer to Russian and German.

Figure 3. Distribution of transitive and intransitive marking patterns across predicates



Besides that, the group of 27 emotional predicates can be addressed. Some of them prefer transitive patterns, e.g., Latv. *mīlēt*, Lith. *mylėti* 'to love' (it is intransitive only in Ingrian Finnish), Latv. *apbēdināt*, Lith. (*nu*)*liūdinti* 'to upset' (being causative in their nature), Latv. *nicināt*, Lith. *niekinti* 'to despise' (interestingly, they are also causative, though it is a bit more problematic, if we look at the predicate meaning), Latv. *cienīt*, Lith. *gerbti* 'to respect'. It seems that all of these predicates imply something similar to relatively volitional activity of X-participants. For Latvian, the ratio of transitive emotional predicates is almost two times higher than for Lithuanian (10 of 27 vs. 6 of 27), and it is closer to German in this respect, compared to other languages in the sample (90% of coincidences in both directions).

Lithuanian NOM - ***ant*** GEN case frame is characteristic for the predicates *pykti* 'to be irritated at', *įsižeisti* 'to take offence at', *irzti* and *širsti* 'to get annoyed at'. All of them have one-to-one correspondence in Latvian NOM - ***uz*** ACC case frame, attested for such predicates as *dusmoties*, *apvainoties* and *piktoties*, respectively.

Finally, Latvian NOM - ***par*** ACC predicates are basically predicates of cognition and emotions, cf. *domāt* 'to think about', *aizmirst* 'to forget about', *ņirgāties* 'to cheat Y', *sapņot* 'to dream about', *sarūgtināties* 'to be upset because of', *priecāties* 'to rejoice at', *kautrēties* 'to be ashamed of' and *brīnīties* 'to be surprised at'. In some cases, it corresponds to NOM - ***apie*** ACC predicates in Lithuanian, e.g., *galvoti* 'to think about', *pamiršti* 'to forget about', *svajoti* 'to dream about'.

Among Lithuanian NOM-GEN predicates about a half consists of emotional predicates, cf. *bijoti* 'to be afraid', *neapkęsti* 'to hate', *ilgėtis* 'to miss Y', *gailėti* 'to feel sorry for', *norėti* 'to want', *varžytis* 'to be ashamed'. As has been mentioned before, Latvian tends to use prepositional constructions in some of these cases, e.g., *baidīties* (***no*** GEN) 'to be afraid', *kautrēties* (***par*** ACC) 'to be ashamed', and some of these predicates are transitive, cf. *žēlot* 'to feel sorry for', *ienist* 'to hate', *gribēt* 'to want'.

5. Conclusions

In this paper, I have given an overview of some argument marking patterns in Latvian and Lithuanian, with a focus on two-place predicates. The main distinction in argument marking predictably lies in the opposition of transitive and intransitive predicates. In the Baltic languages, situations which have the set of parameters attributed to prototypically transitive events select for nominative-accusative frame and normally allow O-participants to be promoted to subject in passive constructions. In addition, Lithuanian transitive predicates are characterized by regular case alternations triggerred by negation and referential properties of O-participants (partitivity).

For some two-place predicates, non-standard case marking is allowed by the semantics of

predicates themselves, normally related to such restrictions on inherent properties of the event and participants which result in notable deviations from a transitivity prototype. Interaction verbs and perception predicates are good examples, and they very often have case frames different from the nominative-accusative one.

The analysis of the data in the sample of 130 predicates has shown that the most frequently attested case marking pattern in both Baltic languages is that one associated with prototypically transitive events (NOM-ACC), which corroborates the hypothesis proposed by Lazard, namely that "[t]he transitive construction in any language is the major biactant construction" (2002: 152). However, the ratio of intransitive predicates in Latvian and Lithuanian data is higher than, for example, in German or Swedish. Interestingly, correlation of mutual predictability between grammatically transitive/intransitive predicates for the Baltic languages is quite high (84%).

The case frames with both participants getting non-standard marking are rare and are related to predicates of lacking and need. Dative marking of core participants is widespread in these languages, but interestingly, sets of such verbs are noticeably different in Latvian and Lithuanian. A small-scale areal study has shown, that Latvian is closer to German, whereas Lithuanian is closer to Slavic languages, as concerns dative marking of Y-participants. The same seems to hold true for the distribution of transitive and intransitive marking patterns.

As for perception predicates, quite a wide range of non-canonical marking patterns is available for both languages, with Latvian, however, being more disposed to transitive case frames, compared to Lithuanian. Latvian and Lithuanian often have regular correspondences in marking patterns across particular predicates; however, it is Lithuanian which uses genitive marking of Y-participants, which is nowadays atypical of Latvian.

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Appendix 1. A fragment of the database (with the Baltic languages shown)

No.	Russian	English	Latvian		Lithuanian	
1	**BOLET'** [u GEN] [NOM]	X's Y HURT	*sāpēt*	DAT - NOM	*skaudėti*	DAT - ACC
2	**BOLET'** [INS]	BE ILL with Y	*slimot, sirgt*	NOM - ar ACC	*sirgti*	NOM-INS
3	**BOJAT'SJA** [GEN]	BE AFRAID of Y	*baidīties, bīties, baiļoties*	DAT - no GEN	*bijoti*	NOM - GEN
4	**BREZGOVAT'** [INS]	BE SQUEAMISH about Y	*smādēt*	NOM - ACC	*šlykštėtis, bjaurėtis*	NOM - INS
5	**BROSAT'** [ACC]	THROW Y	*mest*	NOM - ACC	*mesti*	NOM - ACC
6	**BYT' DOVOL'NYM** [INS]	BE SATISFIED with Y	*būt apmierinātam / ... mierā*	NOM - ar ACC	*būti patenkintam*	NOM - INS
7	**BYT' DOSTATOČNYM** [DAT] [GEN]	BE SUFFICIENT to Y	*pietikt*	DAT - GEN	*pakakti, užtekti*	DAT - GEN
8	**BYT' POXOŽIM** [na ACC]	RESEMBLE Y	*būt līdzīgam*	NOM - DAT	*būti panašiam*	NOM - į ACC
9	**VERIT'** [DAT]	BELIEVE Y	*ticēt*	NOM - DAT	*tikėti*	NOM - INS
10	**VZJAT'** [ACC]	TAKE Y	*(pa)ņemt*	NOM - ACC	*(pa)imti*	NOM - ACC
11	**VIDET'** [ACC]	SEE Y	*redzēt*	NOM - ACC	*(pa)matyti*	NOM - ACC
12	**VLIJAT'** [na ACC]	INFLUENCE Y	*ietekmēt*	NOM - ACC	*(pa)veikti*	NOM - ACC
13	**VLJUBLJAT'SJA** [v ACC]	FALL IN LOVE with Y	*iemīlēties*	NOM - LOC	*įsimylėti*	NOM - ACC
14	**VSTREČAT'SJA** [s INS]	MEET Y	*satikties*	NOM - ar ACC	*susitikti*	NOM - su INS
15	**VXODIT'** [v ACC]	ENTER Y	*ieiet, ienākt*	NOM - LOC	*įeiti*	NOM - į ACC
16	**VYIGRAT'** [u GEN]	WIN from Y / BEAT Y	*uzvarēt*	NOM - ACC	*laimėti, išlošti*	NOM - prieš ACC
17	**VYXODIT'** [iz GEN]	GO OUT of Y	*iziet*	NOM - no GEN	*išeiti*	NOM - iš GEN
18	**GNAT'** [ACC]	DRIVE Y	*dzīt*	NOM - ACC	*varyti, ginti*	NOM - ACC
19	**GNUT'** [ACC]	BEND Y	*liekt, locīt*	NOM - ACC	*(su)lenkti*	NOM - ACC
20	**GOVORIT'** [DAT]	TELL Y	*teikt*	NOM - DAT	*(pa)sakyti*	NOM - DAT
21	**DERŽAT'** [ACC]	HOLD Y	*turēt*	NOM - ACC	*laikyti*	NOM - ACC
22	**DOVERJAT'** [DAT]	TRUST Y	*uzticēties*	NOM - DAT	*pasikliauti, pasitikėti*	NOM - INS
23	**DOGNAT'** [GEN]	COME UP with Y	*panākt*	NOM - ACC	*pa(si)vyti*	NOM - ACC
24	**DOIT'** [ACC]	MILK Y	*slaukt*	NOM - ACC	*(pa)melžti*	NOM - ACC

25	**DOSTIČ** [GEN]	REACH Y	*sasniegt*	NOM - ACC	*(pa)siekti*	NOM - ACC
26	**DOTRONUT'SJA** [do GEN]	TOUCH Y	*pieskarties, piedurties*	NOM - DAT	*(prisi)liesti, (prisi)lytėti*	NOM - prie GEN
27	**DRAT'SJA** [s INS]	FIGHT with Y	*kauties, sisties, plēsties*	NOM - ar ACC	*peštis (susipešti)*	NOM - su INS
28	**DRUŽIT'** [s INS]	BE FRIENDS with Y	*draudzēties*	NOM - ar ACC	*draugauti*	NOM - su INS
29	**DUMAT'** [o LOC]	THINK about Y	*domāt*	NOM - par ACC	*galvoti, mąstyti*	NOM - apie ACC
30	**JEST'** [ACC]	EAT Y	*ēst*	NOM - ACC	*(su)valgyti*	NOM - ACC
31	**ŽALET'** [ACC]	FEEL SORRY for Y	*žēlot*	NOM - ACC	*gailėti(s)*	NOM - GEN
32	**ŽARIT'** [ACC]	FRY Y	*cept*	NOM - ACC	*(iš)kepti*	NOM - ACC
33	**ŽDAT'** [ACC]	WAIT for Y	*gaidīt*	NOM - ACC	*laukti*	NOM - GEN
34	**ZABYVAT'** [o LOC]	FORGET about Y	*aizmirst*	NOM - par ACC	*užmiršti*	NOM - apie ACC
35	**ZAVIDOVAT'** [DAT]	ENVY Y	*(ap)skaust*	NOM - ACC	*pavydėti*	NOM - DAT
36	**ZAVISET'** [ot GEN]	DEPEND on	*būt atkarīgam*	NOM - no GEN	*priklausyti, pareiti*	NOM - nuo GEN
37	**ZVAT'** [ACC]	CALL Y	*saukt*	NOM - ACC	*(pa)šaukti*	NOM - ACC
38	**ZLIT'SJA** [na ACC]	BE IRRITATED at Y	*dusmoties, piktoties*	NOM - uz ACC	*pykti, širsti*	NOM - ant GEN
39	**ZNAKOMIT'SJA** [s INS]	MAKE THE ACQUAINTANCE of Y	*iepazīties*	NOM - ar ACC	*susipažinti*	NOM - su INS
40	**ZNAT'** [ACC]	KNOW Y	*pazīt*	NOM - ACC	*pažinti*	NOM - ACC
41	**IGRAT'** [na LOC]	PLAY Y	*spēlēt*	NOM - ACC	*skambinti*	NOM - INS
42	**IZBEGAT'** [GEN]	AVOID Y	*(iz)vairīties*	NOM - no GEN	*vengti*	NOM - GEN
43	**IZGOTOVLJAT'** [ACC]	MAKE Y	*(uz)taisīt*	NOM - ACC	*(pa)gaminti*	NOM - ACC
44	**IZDEVAT'SJA** [nad INS]	MOCK AT Y	*ņirgāties,zākāties*	NOM - par ACC	*tyčiotis*	NOM - iš GEN
45	**IMET'** [ACC]	HAVE Y	*(būt)*	DAT - NOM	*turėti*	NOM - ACC
46	**ISKAT'** [ACC]	LOOK for Y	*meklēt*	NOM - ACC	*ieškoti*	NOM - GEN
47	**KRASIT'** [ACC]	PAINT Y	*(no)krāsot*	NOM - ACC	*(nu)dažyti*	NOM – ACC
48	**KUSAT'** [ACC]	BITE Y	*iekost*	NOM - DAT	*(i)kąsti*	NOM - DAT
49	**LIŠAT'SJA** [ACC]	LOSE Y	*zaudēt*	NOM - ACC	*netekti*	NOM - GEN
50	**LOVIT'** [ACC]	CATCH Y	*ķert*	NOM - ACC	*gaudyti*	NOM - ACC

51	**LOMAT'** [ACC]	BREAK Y	*(sa)lauzt, (no)plēst*	NOM - ACC	*(su)laužyti*	NOM - ACC
52	**L'STIT'** [DAT]	FLATTER Y	*glaimot*	NOM - DAT	*meilikauti*	NOM - DAT
53	**LJUBIT'** [ACC] (human)	LOVE Y	*mīlēt*	NOM - ACC	*mylėti*	NOM - ACC
54	**LJUBIT'** [ACC] (inanimate)	LIKE Y	*(pa)tīkt,garšot*	DAT - NOM	*mėgti*	NOM - ACC
55	**MAXAT'** [INS]	WAVE Y	*māt*	NOM - ar ACC	*mojuoti, mosuoti*	NOM - INS
56	**MEČTAT'** [o LOC]	DREAM about Y	*sapņot*	NOM - par ACC	*svajoti*	NOM - apie ACC
57	**MYT'** [ACC]	WASH Y	*(iz/no)mazgāt*	NOM - ACC	*(iš/nu)plauti*	NOM - ACC
58	**NADEVAT'** [ACC]	PUT ON Y	*(uz)vilkt*	NOM - ACC	*mautis (užsimauti)*	NOM - ACC
59	**NAZYVAT'SJA** [INS]	BE CALLED Y	*saukt*	ACC - par ACC	*vadintis*	NOM - NOM
60	**NAKAZYVAT'** [ACC]	PUNISH Y	*sodīt*	NOM - ACC	*(nu)bausti*	NOM - ACC
61	**NAPAST'** [na ACC]	ATTACK Y	*uzbrukt*	NOM - DAT	*(už)pulti*	NOM - ACC
62	**NAPOLNJAT'SJA** [INS]	FILL with Y	*piepildīties*	NOM - ar ACC	*pildytis (prisipildyti)*	NOM - GEN
63	**NASLAŽDAT'SJA** [INS]	ENJOY Y	*baudīt*	NOM - ACC	*mėgautis*	NOM - INS
64	**NAXODIT'** [ACC]	FIND Y	*(at)rast*	NOM - ACC	*(su)rasti*	NOM - ACC
65	**NEDOSTAVAT'** [DAT GEN]	LACK Y	*(pie)trūkt*	NOM - GEN	*trūkti, reikėti*	DAT - GEN
66	**NENAVIDET'** [ACC]	HATE Y	*(ie)nīst*	NOM - ACC	*neapkęsti*	NOM - GEN
67	**NRAVIT'SJA** [DAT NOM]	LIKE Y	*patīkt*	DAT – NOM	*patikti*	DAT - NOM
68	**NUŽDAT'SJA** [v LOC]	NEED Y	*vajadzēt*	DAT - ACC	*trūkti, reikėti, stokoti*	DAT - GEN
69	**OBIŽAT'SJA** [na ACC]	TAKE OFFENCE at Y	*aizvainoties,apvainoties*	NOM - uz ACC	*įsižeisti*	NOM - ant GEN
70	**OGORČAT'** [ACC]	UPSET Y	*skumdināt, (ap)bēdināt*	NOM - ACC	*(nu)liūdinti*	NOM - ACC
71	**OGORČAT'SJA** [iz-za GEN]	BE UPSET because of Y	*sarūgtināties*	NOM - par ACC	*sielotis (susisieloti)*	NOM - dėl GEN
72	**OKRUŽAT'** [ACC]	SURROUND Y	*ieskaut*	NOM - ACC	*supti*	NOM - ACC
73	**OSTAVAT'SJA** [u GEN NOM]	HAVE LEFT Y	*palikt*	DAT - NOM	*(pasi)likti*	DAT - NOM
74	**OTVEČAT'** [DAT]	ANSWER Y	*atbildēt*	NOM - DAT	*atsakyti*	NOM - DAT
75	**OTKRYVAT'** [ACC]	OPEN Y	*atvērt*	NOM - ACC	*atidaryti*	NOM - ACC
76	**OTLIČAT'SJA** [ot GEN]	DIFFER from Y	*atšķirties*	NOM - no GEN	*skirtis*	NOM - nuo GEN

77	**OTSTAT'** [ot GEN]	BE BEHIND Y	*atpalikt*	NOM - no GEN	*atsilikti*	NOM - nuo GEN
78	**PAXAT'** [ACC]	PLOUGH Y	*art*	NOM - ACC	*arti*	NOM - ACC
79	**PAXNUT'** [INS]	SMELL OF Y	*smaržot, ost*	NOM - pēc GEN	*kvepėti, dvokti*	NOM - INS
80	**PERESEČ** [ACC]	CROSS Y	*šķērsot*	NOM - ACC	*pereiti, kirsti*	NOM – ACC
81	**PET'** [ACC]	SING Y	*(no)dziedāt*	NOM - ACC	*(pa)dainuoti,(su)giedoti*	NOM - ACC
82	**PISAT'** [ACC]	WRITE Y	*(uz)rakstīt*	NOM - ACC	*(pa)rašyti*	NOM - ACC
83	**PIT'** [ACC]	DRINK Y	*(iz)dzert*	NOM - ACC	*(iš)gerti*	NOM – ACC
84	**PLAVIT'** [ACC]	MELT Y	*(iz)kausēt*	NOM - ACC	*(iš)lydyti*	NOM – ACC
85	**PODXODIT'** [k DAT]	SUIT Y	*piestāvēt*	NOM - DAT	*tikti*	NOM - DAT
86	**POKIDAT'** [ACC]	LEAVE Y	*pamest*	NOM - ACC	*palikti*	NOM - ACC
87	**POKRYVAYT'** [ACC]	COVER Y	*(pār)klāt*	NOM - ACC	*dengti*	NOM - ACC
88	**POMNIT'** [ACC]	REMEMBER Y	*atcerēties*	NOM - ACC	*prisiminti*	NOM - ACC
89	**POMOČ** [DAT]	HELP Y	*palīdzēt*	NOM - DAT	*padėti, pagelbėti*	NOM - DAT
90	**PONIMAT'** [ACC]	UNDERSTAND Y	*saprast*	NOM - ACC	*suprasti*	NOM - ACC
91	**POPAST'** [v ACC]]	HIT Y	*trāpīt*	NOM - LOC	*trenkti, pataikyti*	NOM - į ACC
92	**PORAŽAT'SJA** [DAT]	BE SURPRISED by Y	*būt satriektam*	NOM - par ACC	*???*	
93	**POREZAT'SJA** [INS]	CUT ONESELF with Y	*(ie/sa)griezt(ies)*	NOM - ar ACC	*įsipjauti*	NOM - INS
94	**PREZIRAT'** [ACC]	DESPISE Y	*nicināt*	NOM - ACC	*niekinti*	NOM - ACC
95	**PRILIPAT'** [k DAT]	STICK to Y	*pielipt*	NOM - DAT	*(pri)lipti*	NOM – prie GEN
96	**PROIGRAT'** [DAT]	LOSE to Y	*zaudēt*	NOM - DAT	*pralošti, pralaimėti*	NOM - DAT
97	**RADOVAT'SJA** [DAT]	REJOICE at Y	*(no)priecāties*	NOM - par ACC	*džiaugtis (apsidžiaugti)*	NOM - INS
98	**RAZGOVARIVAT'** [s INS]	SPEAK to Y	*runāt, sarunāties*	NOM - ar ACC	*kalbėti(s)*	NOM - su INS
99	**RAZDRAŽAT'SJA** [na ACC]	GET ANNOYED at Y	*skaisties*	NOM - uz ACC	*irzti*	NOM - ant GEN
100	**ROŽAT'** [ACC]	GIVE BIRTH to Y	*(pie)dzemdēt*	NOM - ACC	*(pa)gimdyti*	NOM - ACC
101	**RONJAT'** [ACC]	DROP Y	*apgāzt*	NOM - ACC	*numesti*	NOM - ACC
102	**RUKOVODIT'** [INS]	MANAGE Y	*vadīt*	NOM - ACC	*vadovauti*	NOM - DAT

103	**SERDIT'SJA** [na ACC]	BE ANGRY with Y	*dusmoties*	NOM - uz ACC	*pykti, širsti*	NOM - ant GEN
104	**SIMPATIZIROVAT'** [DAT]	SYMPATHIZE with Y	*simpatizēt*	NOM - DAT	*simpatizuoti*	NOM - DAT
105	**SKUČAT'** [po DAT]	MISS Y	*ilgoties*	NOM - pēc GEN	*ilgėtis*	NOM - GEN
106	**SLEDOVAT'** [za INS]	FOLLOW Y	*sekot*	NOM - DAT	*sekioti, sekti*	NOM - ACC
107	**SLEZAT'** [s GEN]	DISMOUNT from Y	*(no)kāpt*	NOM - no GEN	*nulipti*	NOM - nuo GEN
108	**SLUŠAT'** [ACC]	LISTEN to Y	*klausīties*	NOM - ACC	*klausyti(s)*	NOM - GEN
109	**SLUŠAT'SJA** [ACC]	OBEY Y	*klausīt*	NOM - DAT	*klausyti*	NOM - GEN
110	**SLYŠAT'** [ACC]	HEAR Y	*dzirdēt*	NOM - ACC	*girdėti*	NOM - ACC
111	**SMEŠAT'SJA** [s INS]	MIX with Y	*sajaukties, samaisīties*	NOM - ar ACC	*maišytis (susimaišyti)*	NOM - su INS
112	**SMOTRET'** [na ACC]	LOOK at Y	*skatīties*	NOM - uz ACC	*žiūrėti*	NOM - į ACC
113	**SNIMAT'** [ACC]	TAKE Y OFF	*novikt, noģērbt*	NOM - ACC	*nu(si)vilkti*	NOM - ACC
114	**SNIT'SJA** [DAT NOM]	DREAM about Y	*sapņot*	NOM - par ACC	*sapnuoti*	NOM - ACC
115	**SOGLAŠAT'SJA** [s INS]	AGREE with Y	*piekrist*	NOM - DAT	*sutikti*	NOM - su INS
116	**SSORIT'SJA** [s INS]	QUARREL with Y	*(sa)strīdēties*	NOM - ar ACC	*pyktis (susipykti)*	NOM - su INS
117	**STESNJAT'SJA** [GEN]	BE ASHAMED of Y	*kautrēties*	NOM – par ACC	*varžytis, drovėtis*	NOM - GEN
118	**STOIT'** [ACC]	COST Y	*maksāt*	NOM - ACC	*kainuoti*	NOM - ACC
119	**STRELJAT'** [v ACC]	SHOOT at Y	*(iz)šaut*	NOM - uz ACC	*(iš)šauti*	NOM - į ACC
120	**SYPAT'** [ACC]	SPILL Y	*(ie)bert*	NOM - ACC	*(i)berti, (i)pilti*	NOM - ACC
121	**TERJAT'** [ACC]	LOSE Y	*(pa)zaudēt*	NOM - ACC	*pamesti, prarasti*	NOM - ACC
122	**TONUT'** [v LOC]	SINK in Y	*(ie)grimt*	NOM - LOC	*(nu)skęsti*	NOM - LOC
123	**UBIVAT'** [ACC]	KILL Y	*nogalināt, nosist*	NOM - ACC	*užmušti, (nu)žudyti*	NOM - ACC
124	**UVAŽAT'** [ACC]	RESPECT Y	*cienīt*	NOM - ACC	*gerbti*	NOM - ACC
125	**UDARIT'** [ACC]	HIT Y	*(ie)sist*	NOM - DAT	*smogti, trenkti, kirsti*	NOM - DAT
126	**UDIVLJAT'SJA** [DAT]	WONDER at Y	*(no)brīnīties*	NOM - par ACC	*stebėtis*	NOM - INS
127	**CELOVAT'** [ACC]	KISS Y	*(no)skūpstīt, (no)bučot*	NOM - ACC	*(pa)bučiuoti*	NOM - ACC
128	**ČITAT'** [ACC]	READ Y	*(iz)lasīt*	NOM - ACC	*(per)skaityti*	NOM - ACC

129	**ŠEVELIT'** [INS]	MOVE Y	*(pa)kustināt*	NOM - ACC	*(pa)krutinti, (pa)judinti*	NOM - ACC
130	**XOTET'** [ACC]	WANT Y	*gribēt*	NOM - ACC	*norėti*	NOM - GEN

Appendix 2. Baltic dative verbs in comparison to several Circum-Baltic languages

TRANSLATION	RUSSIAN	LATVIAN	LITHUANIAN	BELARUSIAN	POLISH	GERMAN	SWEDISH
RESEMBLE	0	1	0	0	0	1	0
BELIEVE	1	1	0	1	1	1	0
TELL	1	1	1	1	1	1	1
TRUST	1	1	0	1	1	1	0
TOUCH	0	1	0	0	0	0	0
BITE	0	1	1	0	0	0	0
FLATTER	1	1	1	1	1	1	0
ATTACK	0	1	0	1	0	0	0
ANSWER	1	1	1	1	1	1	0
SUIT	0	1	1	1	0	1	0
HELP	1	1	1	1	1	1	0
LOSE TO	1	1	1	1	0	0	0
SYMPATHIZE WITH	1	1	1	1	0	1	0
FOLLOW	0	1	0	1	0	1	0
OBEY	0	1	0	1	0	1	0
AGREE WITH	0	1	0	1	0	1	0
HIT	0	1	1	1	0	0	0
ENVY	1	0	1	0	1	0	0
LEAD	0	0	1	0	0	0	0

Abbreviations

ACC – accusative; ART – article; AUX – auxiliary; DAT – dative; DEB – debitive; F – feminine; FUT – future; GEN – genitive; IMP – imperative; INS – instrumental; LOC – locative; M – masculine; N – neutral; NEG – negation;NOM – nominative; PART – partitive; PA – active participle; PL – plural; PP – passive participle; PRS – present; PRV – preverb; PST – past; Q –question particle; SG – singular.

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