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Non-canonical case-marking on core arguments in Lithuanian

A historical and contrastive perspective

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In warm memory of my father Bjarni Þórðarson (1936-2012).

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Stockholm, October, 2014.

Abbreviations

ABS	absolutive
ACC	accusative
ADJ	adjective
CCG	Cognitive Construction Grammar
CxG	Construction Grammar
DAT	dative
e.g.	exempli gratia (for example)
ERG	ergative
GEN	genitive
HRA	highest ranked argument
fc.	Forthcoming
i.e.	id est (that is)
IE	Indo-European
INF	infinitive
INS	instrumental
Latv.	Latvian
Lith.	Lithuanian
Lith.dial.	Lithuanian dialects;
LOC	locative
Mod.Lith.	Modern Lithuanian
NEUT	neuter
NOM	nominative
NP	Nominal phrase
OLith.	Old Lithuanian
OCS	Old Church Slavic
PIE	proto Indo-European
PL	plural
PP	prepositional phrase
PPP	passive past participle
PRO	silent pronoun
PRS	present
PSA	Privileged Syntactic Argument
PST	past
RRG	Role and Reference Grammar
SAE	Standard Average European
SG	singular

List of original publications

- I Bjarnadóttir, Valgerður. 2014. **Dialectal and diachronic distribution of case variation in Lithuanian pain verb constructions.** *Baltic Linguistics*. Vol. 5: 9-57. Reproduced with the kind permission of Baltic Linguistics.
- II Bjarnadóttir, Valgerður. fc. **Emergence and spread of accusative-marking of body parts in Lithuanian.** Accepted and peer reviewed for *Baltu Filologija*.
- III Bjarnadóttir, Valgerður. fc. **Oblique anticausative in Lithuanian.** Accepted and peer reviewed for *Baltistica*.
- IV Wiemer, Björn, & Valgerður Bjarnadóttir. 2014. **On the non-canonical marking of the highest-ranking argument in Lithuanian and Icelandic - Steps towards a database.** In: Axel Holvoet & Nicole Nau (eds.), *Grammatical Relations and Their Non-Canonical Encoding in Baltic*, John Benjamins: 301-361. Reproduced with kind permission of John Benjamins.
- V Barðdal, Jóhanna, Thomas Smitherman, Valgerður Bjarnadóttir, Serena Danesi, Gard B. Jensen & Barbara McGillivray. 2012. **Reconstructing constructional semantics: The dative subject construction in Old Norse-Icelandic, Latin, Ancient Greek, Old Russian and Old Lithuanian.** *Studies in Language* 36(3): 511-547. Reproduced with kind permission of John Benjamins.
- VI Bjarnadóttir, Valgerður, & Merlijn De Smit. 2013. **Primary argument case-marking in Baltic and Finnic.** *Baltu Filologija*: 31-65. Reproduced with the kind permission of LU Akadēmiskais apgāds.

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1. Introduction

Non-canonical case-marking of subjects and objects has been the focus of attention of much linguistic research in recent years. Many of the world's languages exhibit constructions where the subject, or the highest ranked argument, is not in the expected nominative case but is in an oblique case, e.g., dative, accusative or genitive, or where the object is not in the expected accusative case.

This syntactic feature existed in all archaic and ancient Indo-European (IE) languages: such as Latin, Greek, Vedic, Gothic, Old English as well as in many non IE languages. In most modern IE languages it has been replaced by a canonical construction, with the subject in the expected nominative case and the object in the accusative case. Some modern languages, however, have preserved this structure. Among those languages we can include both of the living Baltic languages, Lithuanian and Latvian, the Slavic languages and some Romance languages. Among the Germanic languages, only German and the Nordic languages, spoken outside of Scandinavia (Icelandic and Faroese), belong to that group. All of these languages are though affected to a varying degree by a change from non-canonical to canonical subject case marking. It must also be stated that cross-linguistically these constructions are very heterogeneous and their syntactic behaviour of these “logical” subjects varies a lot. Some behave like true subjects and others not.

This thesis is an investigation into the non-canonical marking of core arguments in Lithuanian. It is a compilation of six studies, which will be referred to as *individual studies* and by their Roman numbers (study I, etc.), when referring to each one of them. The main focus will be on non-canonical case-marking on subjects or subject-like arguments in Lithuanian, and this is the recurrent theme in the individual studies, each of them, however, providing different perspectives, methodological or theoretical approaches to this theme. Special attention will be paid to the variation in the case-marking of body parts in pain verb constructions, where in Lithuanian one finds the standard language variant, an accusative-marked body part, and alongside the dialectal variant, a nominative-marked body part. This variation has recently caught the attention of several scholars (Piccini 2008; Holvoet 2009, 2013; Seržant 2013) and the thesis represents an attempt to clarify the question of which case-marking on the body part in these constructions is original and to seek a better understanding for the reasons for this case varia-

tion. This has remained, somehow as an unsolved mystery as scholarly opinions differ on this question.

The overall aim of this thesis is to examine and analyze the non-canonical case-making of core arguments in Lithuanian and to contribute to a deeper understanding of this phenomena in Lithuanian, in particular, its origin and historical development as well as in a more general linguistic, crosslinguistic and contrastive perspective. An additional aim is to develop a methodology for crosslinguistic or dialectal comparison of predicates with non-canonically marked subjects, with the hope that the methods and theories used in this investigation will prove useful for future research in this area.

More specifically the aim of the first three individual studies is to give a clear picture of the dialectal distribution of the case variation NOM~ACC, in constructions denoting pain as well as its occurrences in old texts, in order to determine which variant is the older one. An additional goal is to identify the reasons for variation and the origins and development of the accusative functioning as a subject in Lithuanian.

The aim of the last three studies is to compare and contrast the use of non-canonical case-marking of core arguments in both Old and Modern Lithuanian with related or unrelated but neighboring languages such as Icelandic, Old Greek, Latin, Old Russian, Old Norse and Finnic.

The structure of this thesis is as follows. This introductory part is intended to provide a context for the individual studies which make up the rest of the thesis. It is organized into six sections. The next section provides background information on the Lithuanian language, its dialects and old Lithuanian literature. Section 3 offers a theoretical background on non-canonical case-marking both in general as well as in Lithuanian, with focus on non-canonical case-marking on subjects and a discussion on the theoretical underpinning for the individual studies, where the theoretical framework and in addition theoretical issues relevant to the individual studies are presented. Section 4 gives an overview of the individual studies, where the aims, material, methods and results of each study are presented and discussed. Finally, sections 5 and 6 provide a general discussion and concluding remarks.

2. Lithuanian

2.1 Lithuanian and its dialects

This section is not intended to be exhaustive, but rather to represent basic information on the language and its dialects.¹

The Lithuanian language belongs to the Baltic branch of the Indo-European family. Only two languages from this branch have survived to the present day: Lithuanian and Latvian. Old Prussian became extinct in the 18th century, due to German colonization of East Prussia. Curonian, Semigallian, and Selian disappeared during a period from the 15th to the 17th century and were either Lithuanized or Lettonized.

The Baltic languages have a close genetic and areal link with the Slavic languages. There are striking linguistic similarities and common traits shared by the two branches. This can be seen in prosody, phonetics, grammatical structure and lexicon. Because of this, it is often postulated that they derived from a common proto-language, i.e., Balto-Slavic, an intermediate stage from Proto-Indo-European and Proto-Baltic and Proto-Slavic. The nature of this relationship has long been subject to debate (cf. Meillet 1908; Sze-merényi 1957; Stang 1966, 1-21; Zinkevičius 1996, 54-70; Dini 2002, 152-163; Hock 2006). Those advocating against a common ancestor language have claimed that, instead of a common proto-language, one can speak of a common Balto-Slavic epoch, where these neighbouring tribes influenced each other for millennia due to their geographic proximity and close contact from Proto-Indo-European times. Despite these different views, the growing consensus now is that Balto-Slavic is a single branch of Indo-European with an internal split.

Within the Baltic languages, there is a further division into East Baltic, to which Latvian and Lithuanian belong, and West Baltic, which claims the extinct language Old Prussian.

The two main dialects in Lithuanian are Aukštaitian and Žemaitian (see figure 1). The differentiating features that are used as the basis for the classification of the Lithuanian dialects are phonological features such as the reali-

¹ For a comprehensive overview of Lithuanian dialects, please refer to Balode and Holvoet (2001) or Zinkevičius (1966), and for the origin of the Baltic languages, to Gimbutas (1963), Zinkevičius (1996) or Dini (2000).

zation of the diphthongs /ie/ and /uo/ or prosodic features such as stress retraction.

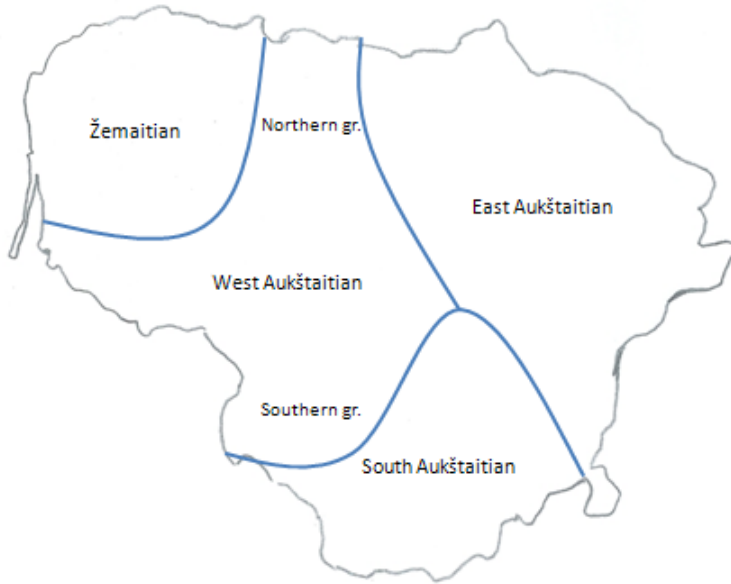


Figure 1. Dialectal map of Lithuania.

2.1.1. Aukštaitian

The Aukštaitian dialect covers a large part of Lithuania (see figure 1) and is spoken in the regions of Aukštaitija, Dainava (Dzūkija) and Suvalkija. It is further divided into three subdialects: West Aukštaitian, South Aukštaitian and East Aukštaitian.

2.1.1.1 West Aukštaitian

The West Aukštaitian dialect is further divided into the northern and the southern subgroups (see figure 1). The northern subdialect is spoken in the region around Šiauliai and is more innovative than the southern one, which is spoken in the area around Kaunas and in the region of Suvalkija. This subdialect is considered to be the most conservative of all the Lithuanian dialects. It is particularly conservative with regard to prosodic features such as stress distraction and in distinguishing long vowels from short ones. This

is evidently due to the fact that this area had never been in direct contact with the East Slavs, while contact with Polish started late and was never intense (Zinkevičius 1996, 206). The southern subdialect served as a model for the unified standard Lithuanian language.

The main criterion used in classifying the Aukštaitian dialects is the treatment *a* and *e* before a nasal consonant. The West Aukštaitian dialect (both subgroups) has preserved *an*, *am*, *en*, *em* and *q*, *ę* as in *dangus* ‘sky’, *kampas* ‘corner’, *menkas* ‘worthless’, *lempa* ‘lamp’, *žqsis* ‘goose’ and *kęsti* ‘suffer’.

2.1.1.2 South Aukštaitian

The South Aukštaitian dialect is spoken in South Lithuania, in a territory once inhabited by the Yotvingians, a tribe belonging to the West Balts. This dialect group is sometimes referred to as *Dzūkian*, based on one of its most characteristic features: the *dzūkavimas*, which refers to the replacement of *t*, *d* before *i*, *j*, *y*, *ie* and of *č*, *dž* with *c* and *dz* (e.g. *cik* instead of *tik* ‘just’ and *sveciai* instead of *svečiai* ‘guests’).

Some archaic traits are found in the morphology or syntax of South Aukštaitian, as in, for example, the retention of the *illative* case. The illative case is a remnant of one of the four postpositional locative cases attested in Old Lithuanian texts and is used as an alternative to constructions with the prepositions ‘to, into’.

The sequence *an*, *am*, *en*, *e* is preserved without any change of the vowel, as in West Aukštaitian. Narrowing of the vowel, however, occurs wherever these sequences have developed into nasal vowels, with subsequent loss of nasalization, resulting in *q* > *ų* as in *žqsis* > *žusis* ‘goose’ and *ę* > *į* *kęsti* > *kisti* ‘suffer’.

2.1.1.3 East Aukštaitian

The East Aukštaitian dialect region covers a very large area of Lithuania (see figure 1), and the dialect is further divided into six subdialects. The common feature of these subdialects is the consistent narrowing of the vowels *a* and *e* preceding a nasal sonorant, as in *dangus* > *dungus* ‘sky’ and *menkas* > *min-kas* ‘worthless’ and *q* > *ų* as in *žqsis* > *žusis* ‘goose’ and *ę* > *į* *kęsti* > *kisti* ‘suffer’.

The territory was exposed to Slavic influence from the east, resulting in several linguistic innovations (Zinkevičius 1996, 211). The dialect has, however preserved some archaisms such as the retention of the illative, as in South Aukštaitian, the retention of the supine form in the *Anykščiai* and the *Kupiškis* subdialects and in addition, many archaic case endings in the *Vilnius* subdialect.

2.1.2. Žemaitian

Žemaitian is spoken in the northwestern part of Lithuania (see figure 1). This territory was once inhabited by the Curonians. Little is known about the Curonian language, but some characteristic features in the Žemaitian dialect might be due to a Curonian substratum (Balode & Holvoet 2001, 45). The characteristic traits of Žemaitian are stress retraction, the tendency to drop final vowels and the ‘Žemaitian Sound Law,’ whereby Aukštaitian has the affricates *č* and *dž* (or *c* and *dz* in South Aukštaitian) Žemaitian has *t* and *d*.

Žemaitian is divided into three subdialects: North Žemaitian, West Žemaitian and South Žemaitian according to reflexes *uo*, *ie*. In North Žemaitian they appear as /ei/ and /ou/, in West Žemaitian as /e:/ and /o:/ and in South Žemaitian as /i:/ and /u:/.

In general, the Žemaitian dialect shows innovative tendencies (idem, 74) both in declensions and verbal inflections as well as in stress retraction and apocope, as mentioned above. Archaic traits can, nevertheless, be found in some subdialects within North Žemaitian, including the retention of the dual as well as the retention of a few archaic endings.

2.2 Old Lithuanian Texts

The first Lithuanian texts were written in the mid-16th century. As in many European countries, literacy was introduced to Lithuania by Christianity. Due to historical circumstances, Lithuanian was spoken in two countries: the Grand Duchy of Lithuania (*Lithuania Major*) and in Prussian Lithuania (*Lithuania Minor*).

In the Grand Duchy of Lithuania, two variants of writing evolved with distinct dialectal differences: *The central variant*, which emerged in the former Duchy of Samogitia, an administrative unit located in the western part of Lithuania Major; *the eastern variant*, formed on the basis of the language spoken in Vilnius and its environs and finally *the western variant*, formed in Lithuania Minor.

Documents from all of these areas are used in Study I in order to discern dialectal differences in the case-marking of body parts in *pain verb constructions*, and there are also examples from all three areas in the database used in Study IV. In what follows, I will give a short overview on the main Old Lithuanian texts from these areas, since such a survey may serve as an introduction to the aforementioned studies.

The study of Old Lithuanian syntax is unfortunately complicated by the fact that most of the Old Lithuanian literary works from this period are

word-to-word translations, mainly from Polish, Latin and German. Fortunately, however, there are some exceptions to this general rule.

2.2.1 Documents from Lithuania Minor

Lithuanian functioned under different conditions in the two countries: In Prussia it flourished and was more rooted in public life than in Lithuania, and it grew stronger through the reforms undertaken by the last Grand Master of the Teutonic Order, Albrecht von Hohenzollern. (Zinkevičius 1996, 227–229). It was here and not in Lithuania that the Lithuanian language was born.

The first Lithuanian book was published in 1547 in Königsberg. It was a catechism translated by Martynas Mažvydas. The language of Mažvydas' texts has been investigated by Stang (1929), and he concludes that it is based on Mažvydas' own Žemaitian dialect but has been adapted to the West Aukštaitian dialect of Lithuania Minor. Lithuanian syntax is poorly reflected in Mažvydas' text, as he translated almost word for word.

Perhaps the most important contribution to Lithuanian language and culture during the 16th century and in this area is the work of Jonas Bretkūnas (1536-1602). He published a collection of prayers (1589) and a book of sermons, *Postilė* (1591). His most important work, however, was the translation of the Bible (1579-1590). Bretkūnas used the spoken language of the people of his area, and particularly many interesting idiomatic expressions can be found in his writings. His syntax seems to reflect the Lithuanian syntax of that period. Although he wrote in the West Aukštaitian dialect, his language has elements from other dialects, including Žemaitian (Zinkevičius 1996, 238).

2.2.2 Documents from Lithuania Major

The political and cultural situation in the Grand Duchy of Lithuania (Lithuania Major) was very different from the situation in Prussia and not favorable to the Lithuanian language. There was a linguistic division in the society with a Polish-speaking upper class and a Lithuanian-speaking peasantry. The Lithuanian language was pushed out of public usage, and it was difficult to publish Lithuanian texts in this area.

Here, two variants of the written language were formed, each with their own standard, as represented in grammars and dictionaries. These were the central variant, which emerged in the former Duchy of Samogitia, and the eastern variant, which was formed on the basis of the language spoken in and around Vilnius.

The most valuable documents from the central area are the writings of Mikalojus Daukša, in particular his *Postilė* (1599). The language in Daukša's translations is influenced by the fact that he originated from the Central Aukštaitian area, but he lived and worked in the South Žemaitian dialectal area (Varniai), so his language is mainly West Aukštaitian but with some Žemaitian traits.

Two other important works from the central area that are worth mentioning, in relation to this thesis, are *Slawoczyński's Hymns* (1646) and *Knyga nobažnystės* (Book of Devotions) from 1653. The first one was written in the South Žemaitian dialect and was later adapted to Aukštaitian, but retained many Žemaitian features in this adaptation. The latter is the largest book of 17th-century Lithuania and the most important Reformist work. It is written in the central Aukštaitian dialect, which today would be categorized as West Aukštaitian (northern group).

The eastern variant is represented mainly by the works of Konstantinas Sirvydas (1579-1631). Sirvydas, considered the father of Lithuanian lexicography, compiled the first dictionary in the Lithuanian language, a trilingual Latin-Polish-Lithuanian dictionary. The title page is missing from the oldest surviving copy, but it has been estimated to date from around 1620 (Zinkevičius 1996, 251). He prepared a new and larger version that was published in 1631, of which no copies have survived. Later, three successive editions appeared (1642, 1677 and 1713). Moreover, he prepared a large two-volume work entitled *Punktai sakymų* (Gospel Points), which was a collection of his original sermons that was published in 1629 and, posthumously, in 1644. Sirvydas wrote in the East Aukštaitian dialect and used many folk expressions from the language of the people around Vilnius.

3. Theoretical background

In this section, the discussion turns to the theoretical underpinning for this investigation. A description of non-canonical casemarking in general, as well as in Lithuanian will be given. Furthermore, two theoretical issues relevant to some of the individual studies will be discussed. These include dative and its subjecthood status in Old and Modern Lithuanian, which are relevant for Studies IV and V, and genitive object marking, which is relevant for Study VI. In addition, the theoretical frameworks used in some of the individual studies will be discussed.

3.1 Definitions

A few terminological preliminaries are in order before proceeding further.

3.1.1 Non-canonical case-marking

The notion of *non-canonical case-marking* simply refers to case-marking patterns that do not conform to the canonical case patterns in the given language. Thus for a nominative-accusative language like Lithuanian, a canonical case-marking is when the subject of a transitive and an intransitive clause is marked with nominative and the object of a transitive clause is marked with accusative. Hence every diverging pattern from this is defined as non-canonical case-marking.

3.1.2 Core arguments

The term *core arguments* is used to define the set {A, S, O} according to the well-established terminology by Dixon (1979), where A is the subject transitive verbs, S the subject of intransitive verbs and O the object of transitive verbs.

3.1.3 Subject

With the term *subject*, I refer to the above-mentioned terminology of Dixon (1979) either to “A” the more agentive of the two arguments of a transitive predicate or to “S” the single argument of an intransitive predicate. This

allows for the subject to be non-canonically marked, i.e., not in nominative case.

3.2 Non-canonical case-marking of core arguments

3.2.1 General overview

Many languages exhibit constructions in which the subject or at least the highest-ranked argument is coded in such a way that it deviates from the general alignment pattern found in the given language, i.e., not in nominative case for accusative languages but in an oblique case, most frequently dative.

1. **Man** buvo šalta. Mod.Lith.
I-DAT was-PST.3 cold-ADJ.NEUT
'I was freezing.'

These constructions, consisting of a *subject* or a *subject-like* argument in an oblique case and not in agreement with the predicate, which usually is in the 3rd person singular, are found in many languages – both Indo-European and non-Indo-European – and could be seen as universal among languages with rich case categories.

Another crosslinguistically frequent phenomenon is non-canonical marking of objects, i.e., when objects are marked not with the prototypical object case accusative but with, e.g., nominative, genitive, dative.

2. Ji bijo šunų. Mod.Lith.
she-NOM be_afraid-PRS.3 dog-GEN.PL
'She is afraid of dogs.'

Different semantic, syntactic or pragmatic factors appear to affect the encoding of arguments of the verb. Prototypical transitive constructions involving a causative-transitive verb, where a volitional, controlling actively-initiating agent acts on a non-volitional, inactive non-controlling patient, are normally canonically case-marked.² Conversely, non-causative two-place verbs that are classified as experiencer verbs (e.g., *like*, *fear*, *be bored*) and interaction verbs (e.g., *help*, *agree*, *marry*) show a considerable more variation in case-marking of their arguments across languages (Tsunoda 1985; Lazard 2003;

² i.e., NOM-ACC for accusative languages and ERG-ABS for ergative languages.

Næss 2007). Conditions related to the transitivity parameters of Hopper and Thompson (1980) such as aspect, volitionality, affirmation, affectedness and agency are among the factors that can affect case-marking and argument realization. Deviation occurs if transitivity is particularly high or particularly low. Affectedness is considered to be a key factor (Tsunoda 1985). Also important in this context is the degree of control over an action, e.g., Silverstein's (1976) NP hierarchy and Wierzbicka's (1981) idea of animacy being a significant factor.

The main focus of this thesis is on non-canonical subject marking, as it is the main topic of all the studies. Only one (Study VI) deals also with non-canonical object marking. Therefore, in what follows, I will mainly concentrate on the non-canonical subject marking (see, however, section 3.3.2 for an overview of genitive object marking).

In recent years extensive research on non-canonical subjects has been undertaken. Worth mentioning are rich typological surveys with article collections, some with purely synchronic descriptions (Aikhenvald et al. [eds.] 2001; Bhaskararao & Subbarao [eds.] 2004; de Hoop & de Swart [eds.] 2008) and others from a diachronic perspective (Seržant & Kulikov [eds.] 2013) and both synchronic and diachronic (Donohue & Wichmann [eds.] 2008; Malchukov & Siewierska [eds.] 2011).

Traditionally these constructions have been referred to as impersonal. In recent times, though, some authors have rejected the use of this term for constructions including “non-canonical subjects”. In the modern literature, impersonal has been extended to constructions not considered impersonal in traditional accounts (cf. Malchukov & Siewierska 2011).

3.2.2 Geographical distribution of oblique subjects

Oblique subject constructions are widespread and crosslinguistically common. They existed in all archaic and ancient Indo-European languages: such as Latin, Greek, Vedic, Gothic, Old English.

- | | |
|--|---|
| <p>3. Me pudet.
 I-ACC be_ashamed-PRS.3
 ‘I am ashamed.’</p> | <p>Latin</p> |
| <p>4. μέλει μοί τινοῦ.
 care-PRS.3 I-DAT something-GEN
 ‘I care for something.’</p> | <p>Greek

 (Bauer 2001, 115)</p> |

It has, however, been claimed that they are very few in Homeric Greek, Sanskrit and Hittite (cf. Hock 1990; Luraghi 2010; Lühr 2011, 237). This view has been challenged by Smitherman (2011) and Danesi (fc.).

In most modern *Standard Average European* (SAE)³ languages, these constructions have been replaced by canonical constructions. Famous and well-studied examples of this replacement or change come from English (cf. Allen 1995; Trousdale 2008; Möhlig-Falke 2012). There is good evidence for them, e.g., in Old English (5), but over the course of English development these non-canonically marked constructions have disappeared.

5.
Him
ofhreow
þæs
mannes
Old English

He-DAT
pity-PST.3
the-GEN
man-GEN

‘He pitied the man’
(Trousdale 2008, 305)

Some modern languages, however, have preserved oblique subject constructions. Among these, we can include both of the living Baltic languages (Lithuanian and Latvian), the Slavic languages and some Romance languages. Among the Germanic languages, only German, Icelandic and Faroese have preserved this type of construction. All of those languages are, however, affected to a varying degree by a change from non-canonical to canonical subject case-marking.

An opposite development can be observed in Indo-Aryan languages, as in the change from Sanskrit canonical NOM-ACC constructions through Old Marathi to Modern Marathi non-canonical DAT-NOM constructions (see Table 1).

Table 1. The development from Sanskrit to Old Marathi to Modern Marathi

Sanskrit		Old Marathi		Mod. Marathi	
Root / Meaning	Case	Meaning	Case	Meaning	Case
<i>smṛ</i> ‘recall’	NOM-ACC	‘recall’	NOM-ACC	‘remember’	NOM-ACC/ DAT-NOM
<i>sūc</i> ‘reveal	NOM-ACC	‘reveal’	NOM-ACC/ DAT-NOM	‘occur to’	DAT-NOM
<i>mān-aya</i> ‘think’	NOM-ACC	‘suit’	NOM-ACC/ DAT-NOM	‘suit’	DAT-NOM

(Adapted from Barðdal & Smitherman 2013, 6)

As for the current state of affairs, an interesting typological survey of the marking of experiencer in 40 European languages (that included both IE and non-IE languages) was conducted by Bossong (1998). It demonstrated that in languages spoken in the central area of SAE, e.g., English and mainland

³ This term was coined by Whorf in 1939 (Whorf 1939). Haspelmath (2001) has defined the SAE Sprachbund by certain linguistic features that these languages have in common, and it consists of the following languages: Germanic languages; Romance languages; Baltic languages; Slavic languages; Albanian; Greek; Hungarian.

Scandinavian, there is a predilection for agent-like experiencers, whereas languages in the most peripheral areas, e.g., the Celtic languages and Icelandic in the western periphery and Finno-Ugric and Caucasus Lezgien in the eastern periphery, patient-like experiencers are preferred. Thus, the typical SAE languages treat the experiencer like the agent of transitive constructions, whereas the peripheral languages morphosyntactically mark the semantic difference between the experiencer and the agent.

Within Indo-European languages, the Germanic family has received most attention (see, e.g., Seeffranz-Montag 1983, 1984). Old and Middle English has been extensively studied in this regard, as, for example, Lightfoot (1979), Allen (1995), Van Gelderen (2001) and Trousdale (2008). Old Dutch has been studied by Burridge (1993, 1995). Old Norse has been investigated in a number of works such as Faarlund (1990), Rögnvaldsson (1991), and Barðdal (2000), as well as Barðdal and Eythórsson (2003, 2005, 2009, 2012), who also include Gothic. Falk (1997) has worked on Old Swedish, and Hrafnbjargarson (2004) on Old and Middle Danish. Modern Icelandic and Faroese have been investigated by Jónsson and Eythórsson (2005, 2011), Eythórsson (2000, 2002) and Jónsson (2003, 2009) (see also Barðdal (2001a,b) and Andrew (2001) among others). Sigurðsson has compared non-canonical subjects in Russian and Icelandic (2002).⁴

As for the Baltic languages: see various contributions in Holvoet & Mikulskas [eds] 2009 and Holvoet & Nau [eds] 2014. Latvian has been studied by Nau (1996), Berg-Olsen (2001, 2005, 2009) and Holvoet (2001).

Lithuanian has been studied by Christen (1995), Ambrazas (2006) Holvoet (2001, 2013) and Holvoet & Judžentis (2005) Piccini (2008) and Seržant (2013, *fc*).

3.2.3 Semantics

The formal appearance of non-canonical subjects, with oblique case and non-agreement with the predicate, demonstrates low agency by the subject, and this is reflected in the meaning. Non-canonical case-marking of the subject is characteristic for constructions with specific semantics.

⁴ For other IE languages, see, e.g., Jung (2013) for Old Russian; Bauer (2000), Cennamo (2009; 2011) and Fedriani (2013) for Latin; Rivero (2004) and Gutiérrez-Bravo (2005) for Spanish; Mathieu (2006) for Old French; Lühr (2011) and Dahl and Fedriani (2012) for Ancient Greek; Hock (1991), Kulikov (2009) and Dahl (2009) for Vedic Sanskrit; and Luraghi (2012) for Hittite.

- Happenstance: verbs referring to meteorological conditions and states, or natural events and also happenings, hindrance, gain and success.
- Experiencer: verbs conveying emotions and feelings, physical or mental state or experience.
- Modality: verbs expressing necessity and possibility.
- Possession and lacking.

This can, of course, vary crosslinguistically, some groups are more predominant in certain languages but might not even exist in others. Historical changes are, of course, of importance in this regard.

Possession, for example, as is demonstrated in Study V, was not expressed by means of the *dative subject construction* in Old Norse-Icelandic, while it was in all the other languages included in the study. Possession in early Indo-European languages was expressed by using a construction that included a dative-marked possessor, a possessum marked in nominative and the 3rd person form of the verb ‘to be’. This can be seen in the so-called “*mi-hi est*” constructions in Latin. Such constructions have been replaced by transitive constructions that have included the verb ‘to have’ over time in most Modern Indo-European languages (Bauer 2000, 151). In Old Lithuanian texts, examples from both types of constructions can be found. The transitive construction was already the major strategy in expressing predicative possession, while the archaic type was not as frequent (Maskuliūnas 2000), suggesting that Old Lithuanian was a transitional language between the inherited possession strategy and the innovative transitive strategy (See also Mazziatelli [2013] and her claims for Modern Lithuanian being a kind of a transitional language.). Interestingly, Latvian has retained this inherited construction, and Russian has, as well.⁵

The development path of modality expressions in Indo-European has been linked to the development of possession described above (cf. Bauer 2000), and, as is shown in Study IV, the modality in Modern Icelandic is very rarely expressed with non-canonical subject marking strategy, while it is slightly more common in Lithuanian.⁶

⁵ The possession strategy in Russian and Latvian has long been considered in the context of areal influences and the close contacts with the Finno-Ugric languages that express possession with the verb ‘to be’ and a locative possessor (Mathiassen 1985; Stolz 1991, 73-76; Nau 1996, 55). As evidence from old IE languages shows, the possession strategies in Russian and Latvian must, however, be inherited but possibly preserved and expanded as result of a Finnic substrate. Thus, language contact did not give rise to a new construction but facilitated its expansion (Koptjevskaja-Tamm & Wälchli 2001). The Russian type with the locative possessor “*u menja*” differs from the Latvian type, with the inherited dative, and is more similar to the Finnic type.

⁶ For a detailed description of the expression of modality and its development in Baltic, see Holvoet 2007.

The semantic group generally associated with non-canonical case-marking is the one with experiencers, and, crosslinguistically, it is possibly the most represented group.

The happenstance group, which describes non-volitional, often accidental, uncontrolled events, is also well represented among languages. This has been shown by Barðdal (2004) for Modern Icelandic, Modern Faroese and Modern High German and is also in Study IV, where the so-called *fructitive* verb has a very high frequency in Icelandic. Lithuanian also has a relatively high frequency of verbs in that group but shows a higher frequency of emotive verbs (experiencers) than Icelandic.

3.2.4 Syntax

Languages vary in whether the non-canonically marked arguments are considered to be true subjects or not. It has been shown conclusively that oblique subjects in Icelandic behave like true subjects (Andrews 1976; Thráinsson 1979; Zaenen et al. 1985; Sigurðsson 1989). Similarly, dative experiencers in New Indo-Aryan, i.e., Hindi, Marathi or Nepali pass subjecthood tests such as raising, equi-NP deletion, control over the reflexive, or conjunction reduction (Gupta & Tuladhar 1980). As for most other languages, the degree of syntactic subjecthood varies. In Lithuanian, it seems to be rather low (Holvoet 2009, 2013; Seržant 2013, *fc.*) (cf. section 3.3.1).

Keenan's (1976) seminal analysis on subject properties has been very influential, and although he did not focus on non-canonical subjects *per se*, his analysis is obviously relevant in this field of research. He divides the subject properties into three subsets: *coding*, which includes case-marking, agreement and word order; *behavioral*, which includes different kinds of syntactic properties such as reflexivation, raising tests, equi deletion, and control; and, finally, *semantic properties*, which includes the expression of agent and/or topic. An important implementation of Keenan's approach is Cole et al. (1980). There it is suggested that behavioral subject properties are acquired historically prior to coding properties (see also Givón 1997).

3.2.5 Theories on the origins of oblique subjects

Broadly speaking, there are three hypotheses about the origin and the development of oblique subject constructions.

- *Object-to-Subject Hypothesis* (Cole et al. 1980; Seefranz-Montag 1984; Givón 1997; Haspelmath 1998, 2001, 2010; Seržant 2013).
- *Oblique Subject Hypothesis* (Eythórsson & Barðdal 2005; Barðdal & Eythórsson 2009; Barðdal & Smitherman 2013).
- *Null Subject Hypothesis* (Delbrück 1900; Seefranz-Montag 1983, 1984; Falk 1997; Bauer 2000; Hewson & Bubenik 2006; Malchukov 2008; Mithun 2008).

Object-to-Subject Hypothesis was originally proposed by Cole et al. (1980), which presents a crosslinguistic overview of language changes in which non-nominative arguments acquire subject properties. As mentioned in the previous section, it is suggested that behavioral subject properties are acquired historically prior to coding properties. Haspelmath (1998, 2010) interprets this *behavioral before coding* as a unidirectional grammaticalization, which explains why dative experiencers gain subject status in Germanic and why coding properties change only after behavioral properties as constructions involving morphology are usually tighter and less prone to change than looser constructions.

A different view is proposed by Barðdal and Eythórsson (2005), which argues for the *Oblique Subject Hypothesis*. Using the construction-specific concept of Croft (2001) and drawing on evidence from the Germanic family, they claim that oblique subjects in Germanic behaved syntactically as subjects already in Old Germanic. Furthermore, in Barðdal & Smitherman (2013), it is claimed that that oblique subjects in Indo-European are inherited from an early proto-stage, and, as evidence for this view, an extensive set of cognate predicates in early and archaic Indo-European languages, is presented.

The *Null Subject Hypothesis* is the traditional perspective in Indo-European linguistics on impersonal constructions (Delbrück 1900; Brugmann 1904). It assumes that these constructions originally contained a null subject, and therefore, the subject-like oblique was an object.

Oblique subjects and even null subjects have to be viewed as ‘residues’ of the ancestral period of a stative–active language in which case-marking was assigned on a semantic basis, which some have claimed for Proto-Indo-European (cf. Schmidt 1979; Gamkrelidze & Ivanov 1995[1984]; Lehmann 1989, 1995; Bauer 1998, 2000; Drinka 1999; Hewson & Bubenik 2006; Piccini 2008; Cennamo 2009; Kulikov 2009 and Barðdal & Eythórsson 2009, among others).

3.3 Non-canonical case-marking in Lithuanian

Lithuanian has a rich case morphology. Modern Lithuanian has seven cases: nominative, genitive, dative, accusative, instrumental, locative and vocative. Most of them can be traced back to the Proto-Indo-European case system. In addition to them, Old Lithuanian has four postpositional locative cases: illative, allative, adessive and inessive, which were created by attaching postpositions to case forms. Except for the inessive, which has survived as the modern locative case, replacing the old inherited locative case, the postpositional locatives have not been preserved in the modern standard language but are attested in some South and East Aukštaitian dialects.

Lithuanian is a nominative-accusative language, i.e., it treats the subjects of transitive verbs like the subjects of intransitive verbs, and they are distinguished from objects through case-marking. The subject has a nominative case-marking and the object is marked with accusative. Therefore, the main cases used for subject and object marking in Lithuanian are the nominative and the accusative.

6. **Vaikas** bėga. Mod.Lith.
Child-NOM run-PRS.3
'The child is running.'
7. **Aš** skaitau **knygą**. Mod.Lith.
I-NOM read-PRS.1 book-ACC
'I am reading a book.'

Lithuanian, like many nominative-accusative languages with rich case morphology, shows many deviations from the canonical nominative-accusative pattern of case-marking.

In what follows, I will give examples of respective constructions in Lithuanian.

One-place verbs:

8. a. Lietuvoje padaugėjo turistų. Mod.Lith.
Lithuania-LOC increase-PST.3 tourist-GEN.PL
'In Lithuania, the number of tourists has increased.'
(www.ve.lt/zymos/lietuvoje-padaugejo-turistu)
- b. **Mano** užmigta. Mod.Lith.
I-GEN fall_asleep-PPP
'I must have dozed off.'
(Holvoet 2007, 102)

The examples in (8) both have a single argument in genitive: in (8a), there is a genitive partitive functioning as a subject, and in (8b), an agentive genitive inferential evidential.

9. **Mane** pykina. Mod. Lith.
 I-ACC nauseate-PRS.3
 ‘I feel nauseous.’ (DLKG 606)

Example (9) has a single argument in accusative.

10. a. **Ligoniui** pagerėjo. Mod.Lith.
 patient-DAT get_better-PST.3
 ‘The patient got better.’ (DLKG 606)

- b. Oi, **man** kaip šalta, Mod.Lith.
 ai I-DAT so cold-ADJ.NEUT
 ‘I’m freezing/I’m cold.’ (LKŽe s.v.⁷)

The examples in (10) both have a single argument: in dative (10a) has a verbal predicate, and (10b) an adjectival predicate.

11. Nuo ežero padvelkė **vėsumu**. Mod.Lith.
 from lake-GEN blow-PST.3 freshness-INS
 ‘It (suddenly) blew with freshness from the lake.’ (LKŽe s.v.)

Example (11) has a single argument in instrumentalis.

12. Reikia **šienas** grėbti. Mod.Lith.dial.
 need-PRS.3 hay-NOM rake-INF
 ‘It is necessary to rake the hay.’ (Ambrazas 2001, 391)

Example (12) is from East Aukštaitian and has a single argument in nominative. This nominative functions as an object and not as a subject.⁸

⁷ s.v. stands for “sub verbo” or “under the word”, a term used in cross reference in dictionaries. In this dissertation, it refers to the verb.

⁸ Nominative objects, depending on the infinitive in impersonal constructions, are common in West Finnic languages, East Baltic and North Russian dialects. For further details, see Ambrazas (2001, 391–412), who attempts to reveal the origin of this syntactic feature in Baltic languages and claims that nominative objects originally functioned as subjects and the infinitive represented the purposive dative. These constructions were reanalyzed as a consequence

Two-place predicates:

13. Jis domisi **muzika.** (NOM -INS)
He-NOM interested_in-PRS.3 music-INS
‘He is interested in music.’ (DLKG 593)

14. Kiškis bijo ir **lapo** (NOM-GEN)
rabbit-NOM frighten-PRS.3 also leaf-GEN
‘The rabbit is also afraid of the leaf.’ (DLKG 592)

15. Vaistai padėjo **ligoniui.** (NOM-DAT)
medicine-NOM.PL help-PST.3 patient-DAT
‘The medicine helped the patient.’ (DLKG 592)

16. **Man** patinka **kepurėlė** . (DAT-NOM)
I-DAT like-PRS.3 hat-NOM
‘I like the hat.’ (LKŽe s.v.)

17. **Vaikui** pagailo **gyvulio.** (DAT-GEN)
Child-DAT feel_sorry-PST.3 animal-GEN
‘The child felt sorry for the animal.’ (DLKG 612)

18. **Man** skauda **galvą** (DAT ACC)
I-DAT hurt-PRS.3 head-ACC
‘My head hurts.’ (DLKG 607)

3.3.1 The syntactic status of dative subjects in Lithuanian

In this section, I will briefly discuss the subject status of the Lithuanian dative functioning as a subject. *Dative subject constructions* are explored in Study V and are also among the oblique cases studied in Study IV. In these studies, the main field of investigation has been the semantics of verbs with dative subjects, and therefore I think it is in order to only present a brief overview of its syntactic status as a subject.

Grammatical relations are highly controversial notions, and the concept of “subject” has been a matter of intense investigation during the last few decades, starting with the attempt by Keenan (1976) to pinpoint the universal properties of subjects (see section 3.2.4). However, because of typological

of the grammaticalization of the infinitive and acquire an impersonal character. For a different opinion, see Timberlake (1974), who comes to the conclusion that nominative objects in East Baltic and North Russian dialects were originally objects and “arose as syntactic borrowing from some West Finnic language(s)” (220).

differences between languages, it is doubtful whether a universal concept of subject can be maintained, and in recent years, there has been a change in focus from universal properties of subjects to language-specific properties of subjects.

The first to analyze subjecthood and grammatical relations in Lithuanian from a modern perspective was Christen (1995), who applied different subjecthood criteria and distinguished between “canonical” and “non-canonical” subjects. Subsequently, various authors have studied non-canonical subjects in Lithuanian from different perspectives (see *inter alia*, Semėnienė 2005; Piccini 2008; Holvoet & Mikulskas [eds] 2009; Holvoet 2013; Holvoet & Nau [eds] 2014; Seržant 2013, *fc*).

One of the most universal tests for subjecthood is control of reflexive pronouns. The reflexive pronoun is typically coreferential with the subject rather than with any other element of the clause. In (19) and (20), we see that the dative argument controls the use of the reflexive possessive pronoun and not the genitive argument.

19. **Katrei** reikėjo **savo** /*jos draugės. Mod.Lith.
 Katrė-DAT need-PST.3 her-+refl/-refl friend-GEN
 ‘Katrė needed her friend.’ (Christen 1995, 23)

20. **Katrės** reikėjo *savo/jos draugei. Mod.Lith.
 Katrė-GEN need-PST.3 her friend-DAT
 ‘The friend needed Katrė.’ (Christen 1995, 23)

This can also be seen in Old Lithuanian.

21. **koğ** berėikia **mumus** ape **fawé** rūpintis? OLith.
 what-GEN need-PRS.3 we-DAT about us-+refl care-INF
 ‘what do we need to care about ourselves?’ (DP 81 21, 1599)

On the other hand, for verbs with DAT-NOM case frame, as, for example, *patikti* ‘like,’ the dative does not control reflexivation, at least for most Lithuanian speakers (*cf.* Holvoet 2013, 265-267).

22. ?Jonui patinka savo naujas švarkas.
 John-DAT like-PRS.3 poss.refl new-NOM jacket-NOM
 ‘John likes his new jacket.’ (Holvoet 2013, 266)

Possibly, the dative argument in the DAT-NOM case frame are gradually acquiring more subject properties, as Holvoet notices (*idem*, 266), which can be seen in some substandard examples (23).

23. Faina yra tada, kai **žmogui** patinka **savo** vardas.

Nice is then when person-DAT please-PRS.3 poss.refl name-NOM
 ‘It’s nice when somebody likes their (own) name.’

(gyvenimas.delfi.lt/namai_ir.../article.php?id...from Holvoet 2013, 266)

Doubts have been raised regarding the strength of this subjecthood test, and it has been argued that control of reflexivization is not associated with syntactic subjecthood but rather with information structure and semantic roles (cf. Haspelmath 2001; Bickel 2004, 2011).

Subject-to-subject raising is one of the subjecthood tests generally used. In raising constructions, the subject of the embedded clause raises to the subject position of the matrix clause. If the verb in the embedded clause assigns oblique case to the subject, then the oblique case overrides the nominative case assignment and surfaces in the matrix clause. Raising predicates in Lithuanian allows the raising of nominative and dative subjects.

24. ..**man** **pradėjo** skaudėti galvą. Mod.Lith.

I-DAT begin-PST.3 hurt-INF head-ACC

‘..my head began to hurt.’

(<http://www.lrytas.lt/pasaulis/rytai-vakarai/salies-pamirstas-v-juscenka-dar-tiki-ukrainieciu-vienybe.htm?p=2>)

This can also be seen in Old Lithuanian.

25. Iegu kad **pradefiti mumis** nelkaneti Pana dewa badis. OLith.

If that begin we-DAT not_like lord God’s word-NOM

‘If we begin to dislike God’s word.’ (WP 209 r19, 1573)

Coreferential deletion is another well-known property of the subject. The subject can be deleted from the second clause if the deleted subject is coreferential with the subject of the first clause. In this regard, I concur with Nau (1998), in what she claims for Latvian, and I find it to hold true for Lithuanian as well, namely, that “no argument is grammatically indispensable, if it is recoverable from the context. Neither indispensability nor the possibility of coreferential deletion are therefore useful criteria to establish subjecthood” (Nau 1998, 217).

Control of converbs has been used as good criterion for subjecthood in Baltic languages (Nau 1998, 217; Seržant 2013, 292). There are two converbs in Lithuanian: the one formed with the suffix *-dam-* is used when the subject of the main clause is identical with the subject of the converb, while the converb with the ending *-nt* is used when the subject of its clause is *not* coreferential with the subject of the main clause. In (26), the *-nt* is used, although the subjects of the two clauses are identical.

26. **Vaikščiojant man** taip skaudėdavo, jog vos begalėjau tverti.
 walk-CNV I-DAT so hurt-PST.FREQ.3 that almost could endure
 ‘It used to hurt so much when I was walking, I almost couldn’t stand
 it.’ (<http://www.spauda.lt/bible/kuhlman.htm>)

This could, however, have to do with the choice of case, irrespective of its subject status. See also Nau (1998, 217) for Latvian, where the *-dam-* converb is controlled by a dative NP.

Control infinitives are generally taken to constitute a conclusive evidence for subject status, especially in Germanic (see, for instance, Falk 1995, 203). In Lithuanian, dative subjects do not control infinitives.

27. *Jis tikisi [PRO] patikti ši knyga. Mod.Lith.
 He-NOM hopes like-INF this book-NOM
 Intended meaning: ‘He hopes to like this book.’

28. Hann vonast til að líka þessi bók Mod.Icel.
 He-NOM hopes to like-INF this book-NOM
 ‘He hopes to like this book.’

What has, however, been shown is that “control infinitives containing impersonal predicates are exceedingly rare in written Modern Icelandic” (Barðdal & Eythórsson 2006, 149), and no examples of them have yet been found in Old Icelandic, despite a thorough search (Rögnvaldsson 1996, 10). There might be semantic reasons behind this, namely, that when the PRO is an oblique subject its role is not that of an agent but usually an experiencer or a theme and has very low control. The PRO would need to be an agent to be able to control the infinitive (*idem*, 10). Therefore control infinitives are probably not good criteria for the subjecthood status of oblique subjects.

In the above, we can see that dative subjects in Lithuanian control reflexivization, at least when there is no nominative in the clause, they pass the raising-subject-to-subject test. They have thus a low subjecthood status, at least compared to Icelandic.

An interesting theory in this regard has been put forth by Seržant (*fc.*), who has demonstrated that dative subject predicates in West Finnic, Baltic and Russian show structural parallelisms in lexical, morphological and syntactic levels. They all show a low degree of subjecthood and pass and fail the same subjecthood tests. This might suggest that this feature is a contact-induced areal pattern.

3.3.2 Genitive as an object marker

In this section, I will discuss the development of the genitive object in Lithuanian, which I consider necessary background information for Study VI. It is the only study in the thesis that takes up the issue of non-canonical object marking, and there the emphasis is on its relation to Finnic. I therefore consider it necessary to give a clearer picture on its development in Lithuanian.

The genitive can function as an object marker in Lithuanian in alternation with accusative or as the sole possible object marker. Additionally it is regularly used as a marker of negated objects rather than the accusative.

- Verbs selecting either accusative or genitive in Old Lithuanian but have generalized the accusative case in Modern Standard Lithuanian.
- Verbs selecting either accusative or genitive in Old Lithuanian but have generalized the genitive case in Modern Standard Lithuanian.
- Verbs selecting genitive in Old and Modern Lithuanian.

3.3.2.1 Genitive-accusative alternation in transitive constructions.

Genitive functioning as an object of transitive verbs instead of accusative is traditionally, on semantic grounds, labelled as *partitive genitive*. A few languages have developed a special partitive case, for example, Balto-Finnic and Basque, while in others, as in most ancient and some modern Indo-European languages, a morphological case like genitive may also function as a partitive case. Many Indo-European languages share this function of the genitive case, and it is considered to be of Proto-Indo-European origin (Meillet 1964, 342). In a crosslinguistic description of partitives, Moravcsik (1978, 272) summarizes the typical semantic correlates of partitives as follows.

- a. the definiteness - indefiniteness of the noun phrase;
- b. the extent to which the object is involved in the event;
- c. the completeness versus non-completeness of the event;
- d. whether the sentence is affirmative or negative.

It is noteworthy that the *partitive genitive* is not the exclusive marker of a particular grammatical function (subject, object) but is in complementary distribution with other cases in all its main functions, i.e., as marker of the object (GEN~ACC), the existential subject (GEN~NOM), different from, e.g., dative. The genitive is always the marked member of the opposition and expresses more information about the subject or the object, while the accusative or the nominative are semantically neutral. With some verbs, however,

as we will see, the *partitive genitive* is lexically required by the verb or has been generalized as the sole case marker of that particular verb.

In alternation with the accusative the genitive in Lithuanian is used for partially affected objects (30) (or unaffected with genitive of negation) and the accusative for totally affected objects (29) a part/whole distinction with the genitive denoting the non-specified quantity of the object and the accusative the specified quantity. In addition, the *partitive genitive* has the functional property of marking indefiniteness (32), in contrast to the accusative marking definiteness (31).

29. Mes suvalgėme **visą tortą** Mod.Lith.
 we eat-PST.3 all-ACC cake-ACC
 ‘We ate the whole cake.’ (Stumbrienė et al. 2008)

30. Vaikas pagėrė **vandens** ir padėkojo . Mod.Lith.
 child drink -PST.3 water-GEN and thank-PST.3
 ‘The child drank some water and said thank you.’
 (Stumbrienė et al. 2008)

31. Prašom duoti man **tą raudoną rožę.** Mod.Lith.
 please give me that red rose-ACC
 ‘Please give me that red rose.’ (Stumbrienė et al. 2008)

32. Prašom duoti man **rožių.** Mod.Lith.
 please give me roses-GEN.PL
 ‘Please give me some roses.’ (Stumbrienė et al. 2008)

The part/whole distinction is obvious in Old Lithuanian.

33. Dowanoio iam **Aukso, Kadilo** ir **Myrro.** OLith.
 give him gold-GEN, incense-GEN and myrrh-GEN
 ‘They gave him Gold, Incense and Myrrh.’ (BrB Mt 2 11)

34. Neschkit sche **Szuwu.** OLith.
 bring here fish-GEN
 ‘Bring some fish over here.’ (BrB Jn 21 10)

It is worth noticing that both (33) and (34) are translated from German, (33) *Schenckten im Gold, Weyrauch un Myrrhen* with accusative object marking and (34) *Bringet her von den Fischen*, where it is obvious that it is only a

part of the fish that is being called for, an undefined quantity, which explains the genitive use in the Lithuanian text.

A very clear distinction between the partially and totally affected object can be seen in examples like (35) and (36), which have both genitive and accusative object.

35. Dievas davė **giedrą**, Dievas duos ir **lietaus**. OLith.
 God give lightning-ACC God give and rain-GEN
 ‘God gave lightning, God will even give rain.’
 (From Daukantas in Ambrazas 2006, 218)

36. Padavė **vandens** ir **kėdę**. Mod.Lith.
 give water-GEN and chair-ACC
 ‘(He) gave some water and a chair.’ (Grenda 1979, 34)

Rain and water are difficult to define, while thunder and a chair are clearly countable.

The distinction indefinite/definite is not as clearly marked in Old Lithuanian.

37. ateik sche, ir walgik **tos** **duonos** OLith.
 come here and eat this-GEN bread-GEN
 ‘Come here and eat this bread/of this bread.’ (BrB Rut 2 14)

In (37), we even have a definite marker (with the definite pronoun *ta* in genitive *tos*), so it is clearly the partiality or the fact that the substance of the bread cannot be quantified precisely and not the indefiniteness of the object that is expressed by the genitive.

Transitive verbs with the prefixes *pri-*, *at-*, *už-*, *pa-*, which increase the sphere of action of the verb or decrease it, usually take direct objects in the genitive case, as in *persivalgyti obuolių* ‘eat too many apples.’ This is especially true of the prefix *pri-*, where use of the genitive is obligatory.

One of the typical semantic correlates of *partitives* mentioned in Moravcsik (1978, 272) is the completeness versus non-completeness of the event. It is known from some languages that GEN~ACC alternation patterns have an impact on the aspectual interpretation of the resultant verb phrase. Thus it is not only the object but the verb itself that is affected by the choice of case, giving rise to an *uncompleted* vs. *completed* event opposition. Kiparsky (1998) observes the tendency in Finnish: a verb denoting an unbounded situation takes the genitive case, whereas, when denoting a bounded event, it takes the accusative case. If one, however, has to express a similar opposition in Russian, one would use the aspectual pairs *imperfective* and *perfective* (cf. Kiparsky 1998, 7 with examples). This opposition is thus morpho-

logically marked in both languages, by a verbal category in Russian and a nominal category in Finnish.

In eastern Lithuanian dialects, certain transitive verbs can take a direct object in the genitive case to denote that the action of the verb is terminally limited.

38. Duok man **peiliuko**. Mod.Lith.dial.
 give me knife-GEN
 ‘Give me a knife.’ (for a short time, I will return it immediately)
 (from Jablonskis 1957, 578)

The use of the genitive here relates to the short time they are needed. From an aspectual point of view, this event seems to be accomplished and a completed action, so therefore we should rather expect an accusative, the shortness of time could, however, also denote unboundedness and an ongoing activity rather than an accomplishment (cf. Seržant 2014).

Additionally, many cognition verbs take either genitive or accusative object in Old Lithuanian, while in Modern Lithuanian the accusative case has been generalized. Among them, we find *žinoti* ‘know’, *atminti*, *minėti* ‘remember’ and *užmiršti* ‘forget’. On Tsunoda’s Affectedness scale (Tsunoda 1985, 388), they are listed in group 4, i.e., low in affectedness and transitivity. In Ambrazas (2006), these are listed among the *genitive partitive* verbs. The partitive reading is, however, not as clear as for the verbs above mentioned. Here it is not so much a question of how the object is affected by the situation, but rather it is that the subject is not an agent but an experiencer, and therefore, they score low on the transitivity scale. Both accusative and genitive objects are found, but genitive is more common in the older texts.

39. **Prisakimu** szinai. OLith.
 commandments-GEN know
 ‘You know the commandments.’ (BrB Lk 18 20)
40. Ponas atsimines est **musu**. OLith.
 Lord has remembered us-GEN
 ‘The Lord has remembered us.’ (Mž 464 8-9)

This is preserved in Donelaitis’ texts from the 18th century, where he only uses genitive for *verba memoriae*.⁹

⁹ Ambrazas’ term for verbs denoting *to remember* or *to forget*.

When referring to a totality of something remembered or forgotten, the accusative is found as in (41).

41. **Grekus** musu **wysus** uszmirsk. OLith.
 sins-ACC our all-ACC forget
 ‘Forget all our sins.’ (Mž 54 14)

Accusative has been generalized as an object of *verba memoriae* in Modern Lithuanian, but genitive can be found in dialects (Ambrazas 2006, 219).

Closely related to the *partitive genitive* is the genitive of negation.¹⁰ It has a more restricted geographical distribution and is limited to the area surrounding the Baltic languages. This is generally considered to be a common Balto-Slavic-Germanic feature, and, besides Baltic, it is also observed in the Slavic languages and in Gothic. It is, however, lost in Germanic, as well as in many Slavic languages, as in, e.g., Czech and Serbo-Croatian (on its distribution in Slavic, see Kagan 2010, 22). Furthermore, it is also observed in the neighboring West Finnic languages, as in, e.g., Finnish and Estonian, where it is well preserved.

It is restricted to accusative objects and not to oblique objects.

42. Aš nusipirkau **dviratį** / Aš nenusipirkau **dviračio**/*dviratį.
 I bought a bike-ACC / I did not buy a bike-GEN/*bike-ACC

But:

43. Ji ruošiasi **egzaminui** / ji nesiruošia **egzminui**/*egzamino
 She prepares for the exam-DAT/she does not prepare for the exam-DAT
 /*exam-GEN

Lithuanian has preserved the genitive of negation, and it is obligatory in the modern standard variety of the language (Ambrazas 2006, 235). The genitive of negation is already mentioned in the first Lithuanian grammar by Kleinas, where it is stated that verbs with the negated particle *né* are usually marked with genitive and only sometimes accusative.¹¹

44. Jus **nepazystat jo** / asz pazystu **ji** OLith.
 you not_know him-GEN I know him-ACC
 ‘You do not know him, I know him.’ (from Ambrazas 2006, 232)

There are examples with accusative in the older texts, as in (45), but they are much less frequent than the genitive.

¹⁰ On the relation with partitive and on the distribution of genitive of negation, see Study VI (Bjarnadóttir & de Smit 2013).

¹¹ Verba cum particula negativa né posita frequentissimè Genitivum recipiunt, cum alias sine illa Accusativum admittererunt KIG 154.

The same pattern is used with verbs with similar semantics in both Latvian and Latgalian (Nau 2014, 245).

Finally, there is the group of verbs that selects genitive in both Old and Modern Lithuanian and do not alternate with accusative. They can, however, alternate with dative, instrumentalis or prepositional phrases both in Old and Modern Lithuanian. These verbs have a common origin, namely, the ablative case. Some IE languages (Indo-Iranian and partly Romance languages) have a special ablative case; others use either genitive (Baltic, Greek) or dative (Celtic, Germanic) to express the ablative function.¹² The original fundamental meaning of the ablative case was to express removal, separation from a source as can be seen concretely in the verbs: *bēgti* ‘flee’, *tekėti* ‘flow’ and *tolti* ‘recede’.

46. Teka upelis **šaltinėlio.** Mod.Lith.
 flow river source-GEN
 ‘The river flows from the source.’ (Ambrazas 2006, 241)

Other verbs related to the meaning of separation, although not with the locative meaning but with more abstract meaning, are verbs like *atsiskirti* ‘separate’, *gintis* or *atsiginti* ‘to protect oneself’ or *vengti* ‘to avoid’.

47. Vilkas vengia **žmonių.** Mod.Lith.
 wolf avoid people-GEN.PL
 ‘The wolf avoids people.’ (Ambrazas 2006, 242)

Belonging to this group are verbs with the meaning of uncomfortable feeling, e.g., fear, refusal and shame, i.e., feelings one would rather avoid. The notion of separation is more abstract than in the above-mentioned verbs and is understood in a metaphoric sense: *bijoti* ‘be afraid of’, ex.: *bijoti vilkų* ‘be afraid of wolves-GEN’; *nusigąsti* ‘get scared’, ex.: *nusigąsti griauštinio* ‘get scared of thunder-GEN’; *gėdytis* ‘be ashamed of’, ex.: *gėdytis mergų* ‘be ashamed of the girls-GEN’; *bodėtis* ‘dislike/get bored of’, ex.: *bodėtis svečio* ‘be bored of the guest-GEN’.

Many verbs with similar semantics also take a genitive complement in Latvian *bīties*, *baidīties* ‘fear/be afraid of’ and *kaunēties* ‘to be ashamed of’ and Latgalian *beitīs* ‘fear/be afraid of’ and Slavic *bojati se* ‘fear/be afraid of’ and *stydėti se* ‘to be ashamed of’, while in Greek and Old Indo-Iranian languages they take ablative (Ambrazas 2006). The verbs *gedėti* and *liūdėti* ‘mourn’ and *verkti* ‘cry’ belong to the same semantic category but can be expressed with PP, i.e., *dėl* + genitive, as well as with only genitive.

¹²The East-Baltic languages and Slavic *-(i)o* the ending of the genitive singular stem is a remnant from the ablative *-ā* (Lith. *vilko*, Latv. *vilka*, OCS *vlъka*).

Goldberg 2013), or “variety-specific constructions” (Croft 2001; Haspelmath 2008).

Another shared view of different versions of Construction Grammar is that grammar is a “holistic” framework: no one level of grammar, e.g., syntax, semantics, morphosyntax or phonology is autonomous, or “core” (see Fried and Östman 2004).

CxG as conceived by Goldberg (1995), which has come to be known as Cognitive Construction Grammar (CCG) since the publication of *Construction at Work* (2006), focuses on semantic categories and relations. The emphasis is primarily on patterns not strictly predictable from their component parts: “Any linguistic pattern is recognized as a construction as long as some aspect of its form or function is not strictly predictable from its component parts or from other constructions recognized to exist. In addition, patterns are stored as constructions even if they are fully predictable as long as they occur with sufficient frequency” (Goldberg 2006, 5). A construction thus exists if one or more of its properties cannot be strictly predicted from the inherent properties of the lexical elements within it. This aspect is particularly interesting for the treatment of *derived pain constructions* in Study II. *Derived pain verbs* denote the feeling of pain, but the original meaning of the verbs is very different from that of pain. The verbs therefore do not determine the argument structure of the sentence. The meaning of the construction is therefore non-compositional in the sense that it is not entirely predictable from the meaning of its parts and, in particular, not from the verbs. Rather, the argument structure results from the composite effects of the verb and the construction as a whole. This makes CxG a very suitable theory for the investigation of *derived pain verbs*.

CxG was originally a synchronic theory, but recently considerable interest in “diachronic construction grammar” has surfaced (Noël 2007; Bergs & Diewald 2008). The field addresses a range of theoretical topics from lexicalization (Lehmann 2002; Brinton & Traugott 2005) and grammaticalization (Lehmann 1995) to syntactical reconstruction (Barðdal 2012, 2013; Barðdal et al. 2012 [Study V]).

In most cases, a historical dimension has been added to a largely synchronic theory, or CxG has been seen as “a tool for diachronic analysis” (Fried 2009). Recently, however, a framework dealing particularly with constructional change, *Diachronic Construction Grammar*, has been developed (Fried 2009, 2013; Barðdal 2011; Hilpert 2013; Traugott & Trousdale 2013).

CxG is an efficient theory for studying constructional meaning historically, as is, hopefully, demonstrated in Study V.

3.4.2 Role and Reference Grammar

This section provides a brief presentation of Role and Reference Grammar (RRG), which was applied in Study IV. This functional approach was

primarily developed by Robert Van Valin and William Foley (Foley and Van Valin 1984; Van Valin and LaPolla 1997; Van Valin 1993, 2004, 2005). Their point of departure was a crosslinguistic theory, aimed to analyze “exotic” languages, such as Tagalog, Dyirbal and Lakhota, rather than English. Thus, it differs in some respects from many other grammatical theories. Grammatical relations like subject and direct object, for example, are not considered to be universal (Van Valin 2005, 259). These features are not reflected in all the languages of the world.

RRG is monostratal, i.e., it rejects any kind of underlying, or deep, structure. There is thus only one syntactic representation of a sentence, which corresponds to its overt form.

This theory captures well the syntax-semantics interface, and the syntactic and the semantic representations of a sentence are the two major representations in the organization of RRG, which assumes that “grammatical structure can only be understood and explained with reference to its semantic and communicative functions” (Van Valin 1993, 2). Yet unlike some of the radical functional approaches, it assumes that the grammar of a language constitutes a structural system in the Saussurean sense.

Syntactic and semantic representations are linked directly via a set of rules called the “linking algorithm”. Central to the semantic representation of the clause is the dichotomy between situations that happen and the participants involved in them.

Thematic relations are generalisations assigned on the basis of the type of verb and position in the semantic structure. The assignment of thematic roles is independently motivated and is not done arbitrarily as in other theories. The generalized roles are called “macroroles” and there are two of them: Actor and Undergoer, prototypically agent and patient in a transitive relation. They can be arranged along a scale between a most agent-like and a most patient-like pole. This scale is called the Actor-Undergoer hierarchy (AUH) (see Fig. 1 in Study IV). With intransitive verbs the single argument can be either Actor or Undergoer. The status of Actor and Undergoer can also depend on coding and behaviour properties of arguments, which surface in language-specific pivots and controllers, united under the heading of Privileged Syntactic Arguments (PSA). Rather than using the traditional grammatical terms subject and object, RRG relies on this concept of PSA (Van Valin & LaPolla 1997). The traditional notion of subjects includes both controllers and pivots. In some languages, such as German and Italian, only macrorole arguments can be PSA, but there are more permissive languages, such as Icelandic, where an argument does not have to correspond to a macrorole in order to qualify as a PSA (Van Valin 1991). Lithuanian appears to be as strict as German in that sense, as only macroroles can be PSAs (Wiemer 2008, 172).

I consider the Role and Reference Grammar framework a particularly efficient approach for comparing the non-canonically marked highest

ranking arguments, because it captures the generalities shared by languages as well as recognizes what are truly language specific phenomena. Another valuable asset of the RRG analysis is that both syntactic and semantic phenomena are taken into account when looking at non-canonical case-marking.

4. Overview of the individual studies

4.1 Introduction to the individual studies

This thesis is a compilation of six articles referred to as individual studies, all of which deal with non-canonical case-marking of core arguments in Lithuanian.

In Study I, I discuss and analyze the case-marking of body parts in expressions denoting pain in Lithuanian, where in the standard language one finds accusative case-marking on the body part, while in several dialects and in a neighboring Baltic language, namely, Latvian, one finds nominative. The question raised in this study is which case, the nominative or the accusative, is the original case-marking. In order to answer this question, an empirical, data-based study on the occurrences of nominative or accusative case-marking of body parts in *pain verb constructions* is conducted both in dialects, as evidenced in the oldest Lithuanian texts, which date from the 16th and 17th century, as well as in dictionaries since the beginning of the 20th century.

In Study II, case-marking variation in *pain verb constructions* is further discussed, and here the focus is on finding the reasons for this variation and, more precisely, the reasons for the change from nominative to accusative in pain specific constructions.

In Study III, it is argued that constructions with accusative-marked arguments functioning as subjects in Lithuanian are anticausative constructions, referred to as *oblique anticausative*. It is furthermore argued that this kind of construction originated early in the language and this claim is based on a crosslinguistic comparison of similar phenomena, particularly in Old Icelandic.

Study IV is a comparison of all aspects of non-canonical case-marking of the highest-ranking arguments in contemporary Lithuanian and Icelandic, in light of Role and Reference Grammar. It is a first step in building a database of non-canonical argument marking in Lithuanian, in contrast to other languages with rich systems of morphological case. This study is the joint work of two authors, for which my contribution is the gathering of all the Lithuanian material, consisting of 200 verbal predicates and the classification and analysis of the Icelandic material, consisting of 425 verbal predicates. Furthermore, the classification and analysis of the Lithuanian material is a col-

laboration, as well as the structuring and the writing of the article, except for the theoretical part, which is written by my co-author.

Study V is a diachronic comparative study involving, besides Old Lithuanian, Latin, Ancient Greek, Old Norse-Icelandic and Old Russian. It is an attempt at reconstructing the semantics of the dative subject construction for an earlier stage of Indo-European and is a collaboration of six authors. My contribution to this study is the gathering of the Old Lithuanian material, consisting of 51 dative subject predicates from texts from the 16th and 17th century.

Study VI offers yet a new perspective on non-canonical case-marking. This study is not limited to Lithuanian but to Baltic material in general, which is compared to the non-genetic-related but areally connected Finnic. The focus is on genitive case-marking on both subjects and objects. The hypothesis put forth in this study is that similar structures, regarding partiality-based object and subject marking and genitive agents in *t*- and *m*-based participial constructions in Baltic and Finnic, are due to early Baltic influence on Finnic structure. This article is a collaboration of two authors. My contribution to this study is the analysis of the Baltic material, and the structuring and the writing of the paper is equally divided between the two authors.

4.2 Aims

The overall aim of the present investigation is to examine and analyze the non-canonical case-marking of core arguments in Lithuanian and to contribute to a better understanding of the development and current state of affairs of this phenomenon in Lithuanian, in particular, and in a more general linguistic and crosslinguistic perspective. The individual studies use different approaches to obtain this overall aim.

In Study I, the variation in the case-marking of body parts in *pain verb constructions* is examined, where in Lithuanian one finds the standard language variant, an accusative-marked body part, and alongside the dialectal variant, a nominative-marked body part. The primary purpose of this study is to give a clear picture of the dialectal distribution of this variation and its occurrences in old texts in order to determine which variant is the older one. A secondary goal of this study is to demonstrate that dialectal data can be used effectively and reliably to investigate diachronic processes and thus contribute to a deeper understanding of the relationship between synchronic variation and diachronic change.

This case variation is also the focus of Study II. In this study, the goal is to identify the reasons for variation.

The aim of Study III is to examine the origins and the development of the accusative functioning as a subject in Lithuanian.

Study IV is a first report on an ongoing project aiming at building up a database of non-canonical argument marking in Lithuanian in contrast to other languages with relatively rich systems of morphological case. The main goal of this first report is to conduct an investigation in light of Role and Reference Grammar on the non-canonical marking of highest-ranked arguments (HRA) in contemporary Lithuanian and Icelandic and to establish a unified database. A secondary goal of this study is to identify regularities in the alternation of coding patterns and furthermore analyze the factors underlying such alternation.

Study V is also a comparative study, this time from a historical perspective and with more languages included, namely, Old Norse Icelandic, Latin, Ancient Greek, Old Russian and Old Lithuanian. It has a narrower scope than Study IV, as it only deals with *dative subject constructions*. There are two main goals in the study: First, to outline a methodology for reconstructing the semantics of the *dative subject construction* in the languages under investigation and to illustrate how the framework of Cognitive Construction Grammar is needed to carry out this enterprise. The second goal is to study the development of the *dative subject construction* and whether the construction may be reconstructed for an earlier proto-stage in Indo-European.

Finally, Study VI investigates yet another different aspect of non-canonical case-marking. The aim is to compare the structures with genitive/partitive as a subject and object marker and genitive of agent in Baltic and Finnic and to demonstrate early Baltic influence on Finnic structure.

Altogether, these different ways of approaching the overall aim of the thesis provide a relatively substantial description of non-canonical case-marking of core arguments in both Old and Modern Lithuanian and their similarities and dissimilarities with related or unrelated but neighboring languages.

An additional underlying aim is more methodological, i.e., to find ways of analyzing non-canonical case marking. Perhaps some of the approaches used in the studies would prove to be useful in gathering, analyzing and comparing material of this kind.

4.3 Material and Methods

4.3.1 Material

The database used in all the six studies is from dictionaries and from published linguistic works. The basic material used in all of the studies was the electronic online version of *Lietuvių Kalbos Žodynas* (LKŽ). The three volumes of *Lietuvių kalbos veiksmažodžių junglumo žodynas* by Sližienė (2004)

(NS) were used in Studies II, III, IV and VI and *Dabartinės Lietuvių Kalbos Žodynas* (2000) (DLKŽ) in Study IV.

For Old Lithuanian in Studies I, II, III, V and VI, the main database, besides (LKŽ), was the electronic online version of Old Lithuanian writings from the Institute of the Lithuanian Language (Iki.lt).

The electronic corpus of Modern Lithuanian (*Lietuvių kalbos tekstynas*, LKT) has been used to gather examples.

The main database for the dialectal research in Study I is the electronic online version of LKŽ, as well as many dialectal dictionaries such as *Zietėlos šnektos žodynas* (Vidugiris 1998), *Lazūnų tarmės žodynas* (Petrauskas & Vidugiris 1985), *Dieveniškų šnektos žodynas* II vol. (N–Z), (Mikulėnienė, Morkūnas & Vidugiris 2010), *Kretingos tarmės žodynas* (Aleksandravičius 2011), *Zanavykų šnektos žodynas* vol. 1-3 (Sakalauskienė 2002-2006) and *Druskininkų tarmės žodynas* (Naktinienė, Paulauskienė & Vitkauskas 1988).

4.3.2 Methods and Research strategies

4.3.2.1 Study I

In order to reach the goals of this study, research on the dialectal distribution of the variation in the case-marking of body parts in pain verb constructions and its occurrence in old texts was carried out.

There are advantages of studying diachronic processes through dialectal evidence in Lithuanian, as dialectal data is easily accessible compared to diachronic data. This is enabled by the fact that there are many specialized dialectal dictionaries and that the *Lietuvių kalbos žodynas* (LKŽ) clearly marks the geographical position of many of its examples.

Lithuanian verbs denoting pain are divided into two groups: (1) *pain specific verbs* whose original meaning was that of pain, e.g., *skaudėti*, *sopėti*, and (2) *derived pain verbs* whose primary meaning is not from the semantic sphere of pain but from different domains such as *badyti* ‘stitch’, *diegti* ‘plant’, *durti* ‘stick’ and *gelti* ‘sting’, and can denote pain metaphorically.

The focus in this study is on *pain specific verbs*. The first part of the study includes an examination on the origin, semantics and morphology of the respective verbs.

In the dialectal study, the Lithuanian linguistic zone is divided into six dialectal areas (within Lithuania) and four areas outside Lithuania (in Belarus). Instances with *pain specific construction* are gathered and the case-marking on the body part compared, both within each dialect, namely, the case-marking variation between different verbs, and, more importantly, between the different dialects.

In the diachronic study, all examples of *pain specific constructions* are collected both from old religious texts and dictionaries from before the 19th century, in order to explore the case-marking on the body part.

4.3.2.2 Study II

In contrast to Study I, where the focus is on the *pain specific verbs*, Study II focuses on *derived pain verbs*. A linguistic analysis in light of Construction Grammar is conducted to clarify how this construction emerges from transitive constructions with NOM-ACC case-frame. The accusative preserved in the *derived pain construction* is explained by means of an *oblique anticausative*. The accusative case-marking on the body part in the *pain specific construction* is explained by means of extension. This extension is further compared to *dative sickness* in Germanic languages on the basis of both being semantically motivated changes and based on productivity and frequency.

4.3.2.3 Study III

In order to reach the goals of this study, the accusative in functioning as subject in Lithuanian has been labelled *oblique anticausative* and a comparison to similar constructions in other languages, in particular with Old Icelandic, is conducted. Two semantic fields are investigated in this regard, namely, verbs denoting physical inconvenience and meteorological verbs.

4.3.2.4 Study IV

Verbal predicates with non-canonical marking of the highest-ranked argument (HRA) from both Lithuanian and Icelandic have been collected. For Icelandic, there already existed a list compiled by Jónsson (1997-98), whereas we needed to compile and create a list for Lithuanian. Ten lexical groups of verbs were determined: *meteorological*, *quantifying*, *physiological*, *emotive*, *epistemic*, *cognitive*, *perceptual*, *fructitive*, *modal* and *suitability*, and on the basis of its semantics, each verb is listed in one of these groups. Statistical calculations are made and the proportions of the lexical groups are compared between languages, both as a whole, i.e., with all cases included and, for each case, dative, accusative and genitive, separately. The main coding patterns are explored and several issues important in this context are discussed as, for example, external possession in Lithuanian, *dative sickness* in Icelandic and locative and instrumental case used with non-canonical coding in Lithuanian.

4.3.2.5 Study V

In this study, a comparison of predicates instantiating the Dative Subject Construction in Old Norse-Icelandic, Ancient Greek, Latin, Old Russian and Old Lithuanian is conducted with the aid of Cognitive Construction Gram-

mar and the Semantic Map Model (Croft 2001; Haspelmath 2003; Cysouw, Haspelmath & Malchukov 2010).

Dative-subject predicates from these languages have been collected and compared. The data collection resulted in a total of 260 sememes.¹³ The distribution of the predicates across the languages is uneven. Lithuanian has the lowest type frequency, with 51 predicates, compared to Old Norse-Icelandic, which has the highest type frequency with 380 predicates.

The sememes are divided into the following semantic categories: *experience*, *happenstance*, *modality*, *possession* and *evidentiality*. The experience-based and happenstance predicates are further divided into 14 different sub-categories, i.e., happenstance into *speaking*, *hindrance*, *ontological states*, *happening*, *gain* and *success* and experience into *emotion*, *attitudes*, *cognition*, *perception* and *bodily states*. A further analysis of all these semantic verb classes yields 49 classes.

A Principal Component Analysis (PCS) is carried out to create a semantic map in which all the most important patterns in a multidimensional dataset are shown.

4.3.2.6 Study VI

In this study, the similarities regarding partiality-based object and subject marking and genitive agent in *t*- and *m*-based participial constructions in Finnic and Baltic are studied. It has already been argued by Larsson (1996, 2001) that these similarities are due to Baltic influence on Finnic. By posing examples from older texts from both language groups as well as demonstrating the existence of these constructions in Indo-European and their distribution in the Uralic languages, we are able to further strengthen this hypothesis.

¹³ *Sememe* refers to a unit of meaning, i.e., the meaning of individual predicates. Several of the predicates are synonymous, in which case only one predicate is provided as an example of that sememe, which means that the appendix does not list all the predicates found across the languages.

4.4 Results

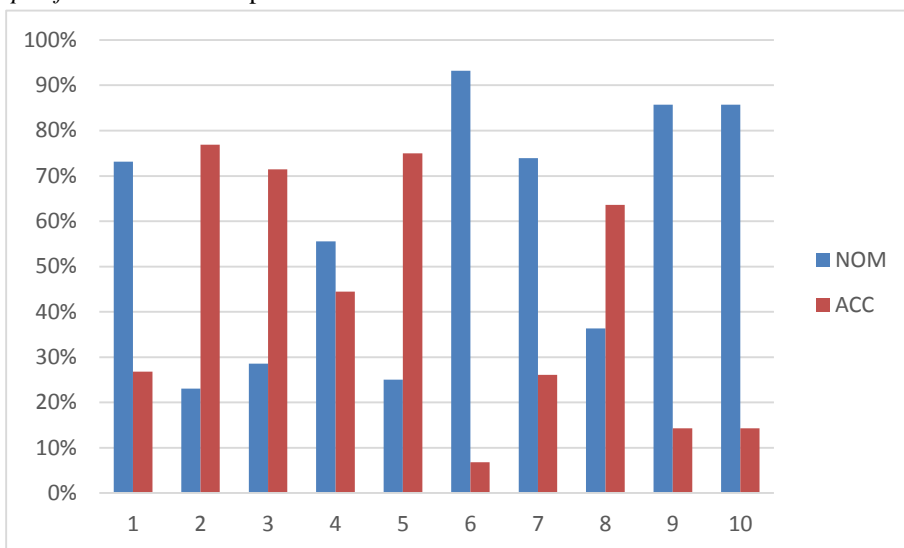
4.4.1 Study I

The first part of the study is an investigation on the origin, semantics and morphology of the *pain specific verbs*. The study clearly shows these verbs have divergent origin. The most common pain verb in Lithuanian, *skaudėti*, shows much more morphological variation than *sopėti*, and the etymological semantics of its stem *skau(d)-* is similar to derived pain verbs, while the lexical semantics of *sopėti* is originally stative.

The second part is the empirical study on the case-marking of the *pain specific verbs* in dialects and older texts. The results of the dialectal part of the study reveal that nominative-marked body parts are found in a much wider area than only in northwestern Lithuania, as sometimes has been claimed. Nominative marking is most prevalent in Žemaitian (see table 2), where only very few exceptions with accusative marking are found, all of which are restricted to the southern part of this dialectal area. Nominative marking is also dominant in East Aukštaitian, with the exception of the southern part of the region, around Vilnius and in Dieveniškės. Furthermore, nominative is also dominant in Lithuanian dialects spoken in Belarus, with the exception of the Malkava dialect (see table 2).

Accusative marking of body parts is, on the other hand, most prevalent in South Aukštaitian and in West Aukštaitian, at least in the southern part (the Kaunas region) (see table 2). This latter area is the area from which Standard Lithuanian is derived, which might explain why accusative is selected as the standard form in Standard Lithuanian. The dialectal findings provide evidence for the diachronic process of this variation, and I assume that accusative marking of body parts must have started in south or central Lithuania and from there stretched to the north, then eastward and has not yet reached the western part (Žematija). The fact that nominative is found in all regions and is not dialectally restricted strongly indicates that it is the original case-marking of body parts in *pain verb construction*.

Table 2. Proportion of NOM-marked body parts vs. ACC-marked body parts with *pain specific verbs* in the respective dialects.



1. East Aukštaitian (north) 2. East Aukštaitian (south) 3. South Aukštaitian 4. West Aukštaitian (north) 5. West Aukštaitian (south) 6. Žemaitian 7. Zietela dialect in Belarus 8. Malkava dialect in Belarus 9. East Aukštaitian in Belarus 10. South Aukštaitian in Belarus (from [Study 1] Dialectal and diachronic distribution of case variation in Lithuanian pain verb constructions).

The findings in the old texts further strengthened the hypothesis that the nominative was the older case-marking, as the analysis reveals that nominative-marked body parts is more prevalent in older texts with only very few examples of accusative-marked body parts. This was noticeable in both religious texts from the 16th and 17th century as well as in old dictionaries dating from before the 20th century.

The few examples with accusative-marked body parts, all included the verb *skaudėti*, while all the examples with *sopėti* had a nominative-marked body parts. The oldest example found of accusative-marked body parts with a pain verb was in the *Knyga Nobažnystės* from 1653. In dictionaries, the oldest example with accusative-marked body parts dates from 1747 and was found in Ruhig's dictionary, where both options were given.

On the whole, the findings of this study provide evidence that nominative was the original case-marking of body parts in pain verb constructions, whereas accusative marking evidently is more recent.

4.4.2 Study II

This study of case-marking variation in *pain verb constructions* in Lithuanian presents evidence that, despite their common semantics, the two groups of verbs, namely, *pain specific verbs* and *derived pain verbs*, have a number of differences that need to be taken into account. A linguistic analysis within the framework of Construction Grammar demonstrates the emergence of the *derived pain construction* from a transitive construction with highly transitive, dynamic verbs with different semantics. The *derived pain construction* preserves the accusative marking on the body part from the object in the original transitive construction. This accusative marking has, in its turn, been extended into the *pain specific construction*, and this extension is due to the high productivity of the *derived pain construction*.

4.4.3 Study III

The comparison of structures with accusative functioning as a subject in Lithuanian and Old Icelandic reveals striking similarities. The similarities are especially noticeable in constructions denoting natural force or meteorological phenomena. This is due to the fact that this *oblique anticausative* construction in this semantic sphere is no longer productive in either of the languages, and, therefore, it is assumed that this group reflects an older state of affairs. The comparison of the semantic group of verbs denoting physical inconvenience reveals different developments in the two languages. This construction has become unproductive in Icelandic but is highly productive in Lithuanian. This analysis suggests that the accusative functioning as a subject in Lithuanian is of an early origin.

4.4.4 Study IV

The comparison of the distribution of oblique cases over lexical groups reveals that Lithuanian and Icelandic differ in the frequency of use for the dative vs. the accusative. Icelandic has a much higher frequency of fructitive verbs and also more physiological and meteorological verbs, which are lacking with the dative in Lithuanian.

The preponderance of the accusative in Lithuanian is due to a frequent and very productive group of verbs denoting physiological inconveniences, which are metaphoric extensions from more basic physical activities. In Icelandic, this type of metaphoric extension is unproductive and occurs only in a few verbs. However, even in Icelandic we can observe a certain preference for accusative-marked highest-ranked arguments (HRA) if the verb denotes

physical pain and inconveniences in contrast to experiences of unpleasant emotional states, which both languages prefer to mark with the dative.

Similar metaphoric extensions occur within meteorological verbs in both languages. In Icelandic, they can be both accusative- and dative-marked whereas in Lithuanian they are only accusative-marked as mentioned above. The genitive case functions rarely as lexically required HRA in both languages. This is especially true with Icelandic where it is almost non-existing. In Lithuanian it stands on firmer grounds. External possessors are prominent in Lithuanian but a rare option in Icelandic. There is no equivalent to *dative sickness* in Lithuanian.

4.4.5 Study V

One important finding in this study is that of the 14 semantic categories¹⁴ listed in the study, Lithuanian, along with Latin, has all except verbs of speaking. Old Russian does not have verbs of speaking either, nor does it have perception verbs. Old Icelandic has all except for verbs of possession, and Ancient Greek has the widest semantic scope of all, representing all the categories. Thus, apart from verbs of speaking, all other semantic categories are found in at least four of five branches. Another finding is that ten sememes are common in all five languages, namely, *like*, *be pleased*, *be proper*, *be sufficient*, *suit*, *succeed*, *be of shame*, *lack*, *need* and *seem*. Overall, the most significant result of this study is that the oldest attested languages, Latin and Ancient Greek, are most similar to each other, while the three more recently documented languages, Old Norse-Icelandic, Old Russian and Old Lithuanian, deviate from these and show signs of individual development. Old Russian and Old Norse-Icelandic show the most deviation from other languages and most importantly from each other. Lithuanian is found between them and shares several features with all the other languages. These languages are attested later than Old Greek and Latin so this is thus expected according to the hypothesis that the *dative subject construction* has been a dynamic and a productive category throughout early history. This could suggest that the construction is inherited but has become productive in the history of Germanic, Baltic and Slavic, albeit in different ways.

4.4.6 Study VI

This study further strengthens what Larsson (1983, 1996, 2001) has already demonstrated, namely, that the similarities in Finnic and Baltic partiality-based object and subject-marking systems are due to Baltic influence on the core syntactic structure of the Finnic languages.

¹⁴ Speaking, hindrance, ontological states, happening, gain and success emotion, attitudes, cognition, perception and bodily states

We reinforce Larsson's hypothesis by supposing a parallel contact-induced development of the Uralic definiteness marker **-m* as an object marker in Finnic. This possibility is suggested by the identical case endings involved: the accusative marker of Proto-Baltic is **-n* < PIE **-m*. The original state of affairs might have been as in Mordvin, where indefinite objects are unmarked (nominative), and the definite marker is **-m*, indicating that the object was animate or specific. This is still the case in some Uralic languages. In Finnic, the partitive object case is an innovation, and it was grammaticalized for quantitatively indefinite objects.

This must be supposed to have taken place before the split of Proto-Finnic and Proto-Saami, as the plural genitive-accusative case, Proto-Saami **-dē*, is cognate with the Finnic partitive suffix **-tA* and likewise based on an ablative case ending **-tA*. This suggests that a partiality-based division of labour between the accusative and the partitive existed already in a common Finnic-Saami protolanguage, with both endings being generalized to different number categories in Saami.

This study also confirms the similarities of structures with genitive agent in participial constructions in Finnic and Baltic. In both language groups *t*- and *m*-based participial constructions co-occur in very similar constructions, although their relative distribution differs greatly. The Finnic **-mA* participle occurs in this construction only in Finnish and dialectally in Karelian and is, for example, missing in Estonian but has cognates in more distantly related Uralic languages. The construction involving a **-ttU* past passive and a genitive agent is much more widespread in Finnic but has no cognates in other Uralic languages. In Baltic, the **-to* participle is on much firmer Indo-European ground than the **-mo*, which has very few parallels in Indo-European. Both constructions have a wider usage in Baltic, e.g., with intransitive verbs, whereas the Finnic construction is restricted to transitive verbs. We suggest therefore that the Finnic genitive agent past passive construction with **-ttU* is constructed on the basis of a straightforward Baltic model and agree with Larsson (1996, 2001) that the similarities of the *m*-based participial constructions in the two language groups are so obvious that a Baltic influence cannot be ignored. We suggest that the close resemblance to the Baltic model contributed to the preservation of the genitive agent construction with **-mA* in Finnish and Karelian. We take this hypothesis on the influence of the Baltic participles a step further by taking into account the development of the Finnic participial as a whole and voice diatheses. The Finnic passive has no cognates in more distantly related languages, and the category cannot be reconstructed for Proto-Uralic. It is thus assumed that the Baltic model patterns might have played a role in the development of the active-passive diathesis in Finnic with the new past passive participle **-ttU* as well as the local retention of **-mA* participle with genitive agent.

5. General Discussions

In this section, I will summarize the findings in the thesis and evaluate their importance to Lithuanian linguistics or linguistics in general. Furthermore, I will discuss some issues raised in the thesis and give prospects for future research.

One of the findings in this thesis suggests that nominative is the original case-marking of body parts in *pain specific constructions* in Lithuanian. Opinions on this differ (see, for example, Piccini 2008) but my findings are in line with previous claims from Holvoet (2009) and Seržant (2013). My contribution to this debate is based on empirical dialectal analysis and is further strengthened with data from Old Lithuanian. The corpus-based dialectal analysis in the context of the case-marking variation in the pain verbs has not been conducted previously. My findings are somewhat contradictory to the general considerations by which Lithuanian dialects are considered innovative or conservative in Lithuania. Southwest Aukštaitian and South Aukštaitian are supposed to be the most conservative and archaic of all the Lithuanian dialects (Balode & Holvoet 2001) but, according to my findings, are more innovative in this regard, and this is where I propose the change from nominative to accusative case-marking of body parts might have started. The archaic features of these dialects are, however, mainly phonological and related to prosody and stress and are due to a former long-term isolation of the area. This need not contradict my findings, as the change discussed here is not borrowed from one language to another but rather “borrowed” from one construction to another.

This last statement leads us to the explanation I offer as the reason for the change from nominative-marked to accusative-marked body parts in *pain specific constructions*. Lithuanian has a very productive group of verbs denoting physiological inconveniences, which are metaphoric extensions from more basic physical activities. I have given these verbs the label *derived pain verbs*. Their productivity can be noted by the high number of verb in this group, which demonstrates the capacity of a given grammatical productive pattern to absorb new elements. In my opinion, the accusative is introduced into the *pain specific constructions* as an extension of the accusative in the *derived pain construction*. This impact of the *derived pain construction* on the case-marking of the body part in the *pain specific constructions* has also been claimed by Seržant (2013). He describes this impact as a canonization

process, whereas I claim that this extension is simply related to the productivity of these verbs.

My findings also suggest that the accusative functioning as a subject is of an old origin, which coincides with Piccini's findings (Piccini 2008). I base this finding primarily on a comparison with Old Icelandic and have introduced the *oblique anticausative*, a term already used for Old Norse (Sandal 2011; Ottósson 2013), to describe an anticausative variant when the nominative agentive subject is "suppressed" and the original object preserves its oblique case when promoted to the subject functioning position. This term might prove useful in explaining this kind of accusative marking in Lithuanian. The similarities of the two languages are particularly obvious with the *oblique anticausative* in the semantic group of verbs denoting natural forces or meteorological phenomena. This is an unproductive group in both languages. The comparison of the semantic group of verbs denoting physical inconveniences reveals different development in the two languages. This construction has become unproductive in Icelandic, which presents very few examples of the construction, while it is very productive in Lithuanian, which provides numerous examples.

The findings in Study IV, the synchronic comparative study with Icelandic, reveal that Lithuanian and Icelandic differ in the frequency of dative vs. accusative use. Icelandic has a much higher frequency of dative-marked arguments and Lithuanian a proportionally much higher frequency of accusative-marked arguments. If we view this finding in light of the above-noted considerations from Study III on the oblique anticausative and productivity, we could say that the accusative marking of the highest-ranking arguments in Lithuanian is limited to the oblique anticausative construction, with the exception of the few *pain specific verbs*, and is restricted to only two lexical, semantic groups: the meteorological and the physiological groups. Accusative marking of the highest-ranking arguments in Icelandic is not restricted, neither to the *oblique anticausative* construction nor to certain semantic groups, and it has, for example, a relatively high frequency of cognitive verbs. Despite these restrictions, Lithuanian has this high frequency of the accusative marking, and this reveals the extensive productivity of the group of verbs denoting physical inconveniences. Icelandic has a very high frequency of dative highest-ranking arguments, which can be found in the oblique anticausative construction, whereas this is not possible in Lithuanian, explaining why they are found in the meteorological group of verbs in Icelandic, in which only accusative arguments were found in Lithuanian. The high frequency of the dative-marked arguments coincides with the findings of Jónsson (1997-98), Barðdal (2001b), and Maling (2002), which have demonstrated that the frequency of the dative as a core argument in Icelandic has been rising. Our findings also demonstrate that Icelandic has a striking high frequency of fructitive verbs, which is a group of non-experiencer verb denoting successful or unsuccessful performances and happenings.

Productivity also plays a role in the findings of Study IV, where it is demonstrated that Old Norse-Icelandic, Old Russian and Old Lithuanian deviate from the earliest attested languages, Latin and Ancient Greek, and show signs of individual development. This could suggest that *dative subject construction* is inherited but has become dynamic and productive in the history of Germanic, Baltic and Slavic, resulting in individual development by these languages.

The methodology in this thesis might serve useful in a corpus-based linguistic analysis. The thesis, for example, demonstrates how dialectal data can shed light on diachronic processes. Dialectal data is often dismissed or neglected in research on language change. For languages in which diachronic data is not easily accessible, there might be advantages to studying dialectal variation. Besides, even when diachronic data is available, dialectal data can be used to further strengthen theories on historical processes.

Likewise, the use of data in the thesis and the methods for comparing languages might provide a useful tool in comparing non-canonically case-marked arguments between languages. This includes, for example, the semantic categories employed to classify the verbal predicates in Studies IV and V and the Principal Component Analysis in Study V to create a semantic map showing the most important patterns in a multidimensional dataset.

The methodological limitations in this thesis primarily stem from the availability of old texts and the technical difficulties of systematic search in the electronic databases that are available. This was obvious in Study V, where Lithuanian had the lowest type frequency of dative subject predicates of all the languages included in this study. The Old Lithuanian part of the database is furthermore substantially smaller than a corresponding database for Modern Lithuanian. There might be other reasons for this besides the methodological limitation mentioned above. At least compared to Latin, Ancient Greek and Old Norse-Icelandic, which present extensive material in old texts, Lithuanian has a rather limited amount. Likewise, systematic research of dative subject predicates has previously been conducted in the above-mentioned languages, while this research was the first of its kind in Lithuanian.

For future research, a comparison with other languages, such as Latvian, would be advantageous. Moreover, I believe that much more data could be harvested from Old Lithuanian texts and that more systematic research than was possible within the scope of this thesis would be profitable.

6. Concluding Remarks

During the process of this research, every new discovery revealed a new area demanding deeper investigation. The point of departure was to investigate the non-canonical case-marking of core arguments in Lithuanian. The focus has been on the non-canonical case-marking of subject-like arguments and their development in Lithuanian. This has been pursued both within a general linguistic context and, in addition, comparative and contrastive research has been undertaken. This has been done both on a synchronic as well as diachronic level and from an areal language contact perspective and based on genetic relationships.

Hopefully, this thesis has achieved its main goal of providing an analysis of the non-canonical case-making of core arguments in Lithuanian and has contributed to a deeper understanding within this field. It has definitely raised many questions, and it is obvious that a number of areas need to be explored further to answer these questions.

Abstract

This thesis presents a description and analysis of non-canonical case-marking of core arguments in Lithuanian. It consists of an introduction and six articles, providing historical and/or contrastive perspective to this issue. More specifically, using data from Lithuanian dialects, Old Lithuanian and other languages such as Icelandic, Latin and Finnic for comparison, the thesis examines the development and current state of non-canonical case-marking of core arguments in Lithuanian. The present work draws on empirical findings and theoretical considerations to investigate non-canonical case-marking, language variation and historical linguistics.

Special attention is paid to the variation in the case-marking of body parts in *pain verb constructions*, where an accusative-marked body part is used in Standard Lithuanian, and alongside, a nominative-marked body part in Lithuanian dialects. A common objective of the first three articles is to clarify and to seek a better understanding for the reasons for this case variation. The research provides evidence that nominative is the original case-marking of body parts in *pain specific construction*, i.e. with verbs, with the original meaning of pain, like *skaudėti* and *sopėti* ‘hurt, feel pain’. On the contrary, in *derived pain constructions*, i.e. with verbs like *gelti* with the original meaning of ‘sting, bite’ and *diegti* with the original meaning ‘plant’, accusative is the original case-marking of body parts. This accusative is explained by means of an *oblique anticausative* and it is argued furthermore that it is extended into the *pain specific construction*. The three last articles focus on the comparative and contrastive perspective. Their main results include the following: Lithuanian and Icelandic differ considerably in the frequency of using accusative vs. dative marking on the highest ranked argument. Accusative is more frequently used in Lithuanian while dative is dominant in Icelandic. The semantic fields of the dative subject construction have remained very stable, suggesting that the dative subject construction is inherited. It has, however, become productive in the history of Germanic, Baltic and Slavic. The similarities in Finnic and Baltic partiality-based object and subject-marking systems are due to Baltic influence.

Keywords: Case-marking, non-canonical subjects, core arguments, Lithuanian, Old Lithuanian, Lithuanian dialects, pain verbs, oblique anticausative, Icelandic, historical linguistics, contrastive linguistics, Construction grammar, Role and Reference grammar.

Sammanfattning

Denna avhandling fokuserar på oblika subjekt och objekt i litauiska. Den består av en introduktionsdel och sex artiklar, som ger historisk och/eller kontrastivt perspektiv på ämnet. Data från dialekter, fornlitauiska och andra språk som isländska, latin och finska används för att undersöka utvecklingen av oblika subjekt och objekt i litauiska och deras likheter och skillnader med andra språk. Särskild uppmärksamhet ägnas åt kasusvariationen på kroppsdelar i konstruktioner som beskriver smärta, där man i standardlitauiska finner en kroppsdel markerat i ackusativ vid sidan av nominativ markering i litauiska dialekter. Forskare har haft olika åsikter om hur denna variation har uppstått och ett av syften med avhandlingen är att klargöra och att söka en bättre förståelse för denna kasusvariation. Detta är det gemensamma målet med de tre första artiklarna. Min forskning visar att nominativ är den ursprungliga kasusmarkeringen av kroppsdelar i konstruktioner med verb vars grundbetydelse beskriver smärta, som *skaudėti* 'ha ont' och *sopėti* 'ha ont'. Däremot är ackusativ den ursprungliga kasusmarkeringen av kroppsdelar i konstruktioner där verbet har en annan grundbetydelse, dvs. med verb som *gelti* 'sticka, bita', *diegti* 'plantera'. Denna ackusativ har sedan spridits i den förstnämnda konstruktionen. De tre senaste artiklarna fokuserar den kontrastiva aspekten. Deras viktigaste resultat inkluderar följande. Litauiska och isländska skiljer sig avsevärt i frekvensen av användning av ackusativ kontra dativ. Ackusativ används oftare i litauiska medan dativ dominerar i isländska. De semantiska fälten i dativ-subjekt-konstruktionen har varit mycket stabila i västindoeuropeiska språk, vilket kan tyda på att dativ-subjekt-konstruktionen har ärvts. Den har dock blivit produktiv i germanska, baltiska och slaviska språk som förklarar vissa olikheter i dessa språk. Likheterna på partitiva objekt och subjekt i finska och baltiska beror på baltiskt inflytande.

Nyckelord: Kasus, oblika subjekt, kärnargument, litauiska, fornlitauiska, litauiska dialekter, verb som beskriver smärta, oblik antikausativ, isländska, historisk lingvistik, kontrastiv lingvistik, konstruktion grammatik, roll och referens grammatik

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Appendix A

List of verbal predicates with non-canonical case-marking on the highest ranked argument in Modern Lithuanian (Study IV)

Sources:

-www.lkz.lt: Electronic online version of Lietuvių kalbos žodynas.

-*Lietuvių kalbos veiksmažodžių junglumo žodynas* vols. 1–3. Vilnius: Mokslo ir enciklopedijų leidybos institutas by Nijolė Slizienė (2004).

Verb lexeme	Rare*	English translation	Case-marking on the HRA
aižyti	rare	hurt	ACC
apstėti	rare	increase	GEN
aušti	rare	dawn	ACC
badyti		hurt	ACC
baisėti-s	rare	be terrified	DAT
baisti-s	rare	fear	DAT
į-baisti	rare	fear	DAT
pa-baisti	rare	fear	DAT
baugėti-s	rare	fear	DAT
berti		break out	ACC
(nu-)bosti		be bored	DAT
būti		have	DAT
dabotis	rare	like, see with enjoyment	DAT
daigyti		hurt	DAT
daigstyti		hurt a lot with intervals	ACC
daryti-s		seem	ACC
daugėti		increase	DAT

deginti		burn/hurt	GEN
iš-degti		succeed	ACC
derėti 1		suit	DAT
derėti 2		be appropriate, proper	DAT
dergti	rare	sleet	DAT
dėti-s	rare	seem	ACC
diegti		hurt a lot	DAT
dygčioti		hurt a lot with intervals	ACC
dygėti 1	rare	itch	ACC
dygėti 2		want	ACC
digsėti		hurt	DAT
dilgčioti		hurt a bit	ACC
dilgėti 1		itch	ACC
dilgėti 2	rare	worry	ACC
dilgsėti		hurt	DAT
dingėti	rare	seem	ACC
dingoti-s		seem	DAT
dingsėti	rare	worry	DAT
dingsoti	rare	worry	DAT
dingt-elė-ti		get an idea	DAT
dyvėti	rare	wonder	DAT
nu-(si)-duoti 1		seem	DAT
nu-(si)-duoti 2		succeed	DAT
ap-drėbti		cover with snow	DAT
durti		hurt	ACC
dusinti		be stifled	ACC
dvelkti		spread/smell	ACC
dvokti		smell	INS
eiti-s		succeed	LOC
iš-eiti 1	rare	waste	DAT
iš-eiti 2	rare	succeed	DAT
su-eiti		pass (about age)	DAT
ėsti		hurt	DAT
į-(si)-ėsti	rare	be bored	ACC
gailėti(-s)	rare	take pity with, pity s.o.	DAT
gardėti	rare	be tasty	DAT
iš-garuoti		evaporate, disappear (fig.)	DAT
su-garuoti	rare	be affected	DAT
gausėti		increase	ACC
su-gauti	rare	begin to hurt, be affected	GEN
gelti		hurt	ACC
gerėti		get better	ACC

gildyti	rare	hurt	DAT
gilsnoti	rare	hurt a bit	ACC
gniauzti		hurt, stifle	ACC
gnybti	rare	hurt	ACC
gorėti	rare	want	ACC
gr(i)aužti		hurt	DAT
griežti		hurt a lot	ACC
už-gulti		be stuffed	ACC
pra-ilgti		be tired off	ACC
at-imti		lose ability/get ill	DAT
nu-imti		be influenced	ACC
su-imti		hurt	ACC
kakti		be sufficient	ACC
su-kakti		pass, turn	DAT
iš-kelti		swell	DAT
į-kyrėti		be bored	ACC
pa-kyrėti		be tired off	DAT
kloti-s		get on	DAT
knibždėti		swarm	DAT
kniesti 1	rare	be anxious	LOC
kniesti 2	rare	itch	DAT
kniet-ė-ti		worry, long for	ACC
kratyti		be shaken	DAT
krėsti		be shaken	ACC
ap-kristi		become covered	ACC
už-kristi		forget	ACC
kvepėti		smell	DAT
laužyti		hurt very bad	INS
laužti		hurt	ACC
leisti		melt	ACC
at-leisti 1		be released from pain	ACC
at-leisti 2		release (about frost etc.)	ACC
pa-leisti		loosen bowels	ACC
likti		need, have to	ACC
ap-lyti	rare	get wet in the rain	DAT
at-lyti	rare	soak off	ACC
nu-lyti		wash away by rain	ACC
per-lyti		drenched by rain	ACC
pri-lyti 1		rain heavily	ACC
pri-lyti 2		be filled by rain	ACC
magėti 1	rare	like	ACC
magėti 2		want	DAT

maginti	rare	be fascinated, captivated	DAT
maišyti-s		get confused	ACC
matyti(-s)		seem	DAT
mausti		hurt	DAT
mažėti		decrease	ACC
mėgti(-s)		like	GEN
(j-) merkti		soak	DAT
mesti		be thrown involuntarily	ACC
mėtyti 1		throw aside	ACC
mėtyti 2		get covered with	ACC
mielinti		hurt	ACC
mušti	rare	gush out	ACC
pri-(si)-mušti		rub, sore	ACC
ap-nešti		cover	ACC
nu-nešti		tear off	ACC
su-nešti		drift	ACC
niežėti		itch	ACC
norėtis		want	ACC
peršėti		hurt	DAT
iš-pilti		break out	ACC
pri-pilti		fill with rain	ACC
su-pilti		become soaked	ACC
pykinti 1		make sick	ACC
pykinti 2	rare	vex, irritate	ACC
pjauti	rare	torment,ache	ACC
plėšti		hurt a lot	ACC
už-plūsti	rare	flood	ACC
purtyti	rare	be disgusted	ACC
api-pustyti		cover with snow	ACC
raižyti		hurt a lot	ACC
regėti-s		seem	ACC
reikėti 1		need	DAT
reikėti 2		have to	DAT
remti		ache	DAT
rėžti		hurt a lot	ACC
rodyti-s		seem, appear	ACC
at-rodyti		seem, appear	DAT
rūpėti		worry	DAT
sapnuoti-s		dream	DAT
sekti-s		succeed	DAT
skambėti		sound (painfully)	DAT
skaudėti		hurt	LOC

skausti		begin to hurt, ache	DAT
skelti		hurt a lot	DAT
smaugti		hurt	ACC
smelkti		hurt very bad	DAT
ap-snigti		cover with snow	ACC
pri-snigti		snow heavily	ACC
sopėti		hurt	ACC
spausti		ache, feel pressure	DAT
stigti		lack	ACC
stokoti	rare	lack	DAT
stumti		be pulled	DAT
sukti 1		hurt	ACC
sukti 2		swell	ACC
į-sukti		roll in	ACC
supti		rock, swing	ACC
šviesti-s	rare	seem	ACC
taikyti-s	rare	manage	DAT
tampyti	rare	stretch	DAT
tekti 1		fall into ones lot	ACC
tekti 2		have to do	DAT
už-tekti 1		be sufficient	DAT
už-tekti 2		be sufficient	DAT
nu-tikti	rare	succeed	DAT
pa-tikti		like	DAT
traukti 1		be attracted to	DAT
traukti 2		cramp	ACC
ap-traukti		freeze	ACC
nu-traukti	rare	be tired off	ACC
su-traukti 1	rare	freeze	ACC
su-traukti 2		cramp	ACC
už-traukti 1		cover (frost)	ACC
už-traukti 2		cover	ACC
troškinti		be thirsty	ACC
trūkti		lack	ACC
vaidenti(-s)		seem	DAT
varyti	rare	melt, disappear	DAT
(iš-)versti	rare	break out	ACC
pra-versti		need, have to	ACC
už-versti		be filled up	DAT
verti		hurt a lot	ACC
veržti		hurt	ACC
vykti	rare	succeed	ACC

nu-vykti	rare	succeed	DAT
vilioti		be attracted to	DAT
ap-vilkti	rare	be covered	ACC

*Rare in the language according to a group of native speakers

Appendix B

Lists of predicates with dative subjects in Old Lithuanian (study V).

Sources:

www.lkj.lt: LKŽ - Lietuvių kalbos žodynas, online.
www.lki.lt: database with Old Lithuanian texts.

Abbreviations of references:

- BB Bretkūnas' Bible, 1590.
- BP Bretkūnas' Postille, 1591.
- Ch Chilinsky's Bible, 1660.
- DK Daukša's Catechism, 1595.
- DP Daukša's Postille, 1599.
- JD Lith. folksongs gathered by Antanas Juškevičius, 1880–1882.
- K Kurschat's Littauisch-deutsches Wörterbuch, 1870.
- LTR Manuscript with Lithuanian folk tales.
- MP Morkūnas' Postille, 1600.
- Mž Mažvydas' Catechism, 1547.
- NS Folksongs from North-Eastern Lithuania gathered by A. R. Niemi and A. Sabaliauskas, 1911.
- PK Petkevičius' catechism, 1598.
- R Littauisch- Deutsches und Deutsch-Littauisches Lexicon by Phiip Ruhig, 1747.
- RB Rhesa's Bible, 1824.
- SP Sirvydas' Punktay sakimu, 1629.
- Vln Vilentas' Enchiridion, 1579.
- VoL Volteris' Lithuanian Chrestomatija, 1904.
- WP The Wolfenbüttel Lithuanian Postilla, 1573.

Verbal predicates:

pa-baisėti	be frightened/terrified by	Tiemus nepa-baisėjo jo vargai	BP II 200
nu-bosti	be bored	Nubôš iîemus giwatá	DP 14,47
būti	have	Man yra dvi duk-teri	BB1Moz 19,8
daboti-s	see with enjoyment, love, like	Teip padabojos tēvui jûsų duot jumus karalystą	DP 485
derėti	be fitted, suited	Ar nederá man ką noriu darit	DP 93,13
diegti	ache	Širdį man diegia	R338
dyvėti	wonder, be surprised	Dyvėja man	K
pri-si-duoti	happen	Ir sakė jam vis tai, kas prisidavė jiems	Ch1Moz42,29
duoti-s	seem	Duomies iš viso kaltas Viešpati Dievui	DK 132
gailėti-s	feel sorry for, pity	Gailisi mani žmonių	MP 266
pa-gailti	feel sorry for, mourn	O kad manei išeiti, motušėlei pagailo	NS 899
gelti	ache, hurt	Man dantys gelia, skausta	KII 129
pa-ilgti	be tired, bored off	Tai man pailgo	K
at-imti	lose	Jam atėme visą šarvą ir ginklą jo	DP 120
kakti	be enough, be suffi- cient	už du simtu grašių duonos ne kanka iemus	DP 123,24-25
pa-si-mėgti	like	Ant to kalna Die-vui pasimegosi giwenti	Mž 229
niežėti	itch	Kam niežta, tas kasos	WP 22
pa-si-norėti	want	Jiem pasinorėjo valgyti	BM 100
regėti-s	seem	Tatai iemus regasi ne griekas	BP II 90
reikėti	need	Ir cze mumus kito	DP 84,17

		ludimo nereikia	
rūpėti 1	be concerned	Jam nerūpėjo laukelis arti, nė šienelis nupjauti	JD 174
rūpėti 2	worry	.. ir jam (kareiviui) rūpi pažiūrėt, kas tam puode kaukia	LTR
sekti-s	succeed	Miestas džiaugiasi, kada gerai sekasi teisiems	BBPat 11,10
skanėti	like	Iegu kad pradefti mumis neskaneti Pana dewa badis	WP 209,r19
skaudėti	ache, hurt	Iog skaudės ghi- emus	RPs 64,8
sopėti	ache, hurt	Tėvučiu(i) galvelė persopėjo	LTR
stokoti	lack	Jam nė viename daikte nestokos	DP 413
pa-si-taikyti-	happen	Ir antrą sykį kara- liui pasitáikė paklys	LKT 155
teksti 1	get, fall into one's lot	Jo karalystė kitiems žmonims neteks	BBDan 2,44
teksti 2	happen	Ar nežinai, kas anomus mergomus paikomus tēko?	DP 96
teksti 3	need to, have to	Teko jam ten prašytis į nakvynę	VoL 300
(už)teksti 4	be enough, be sufficient	Už du šimtu grašių duonos neteko įjėmus	SPII 78
tikti 1	suit, fit	O čia jau niekam netinka anie iškalbinėjimai	DP 362
tikti-s 2	happen	Nesitiks tau iš sylvarto niekas	PK 80
pa-tikti 3	like	dara ghe wifsi kaip iemus patinka	WP 37,5

Nominal predicates (adjectives, adverbs, nouns):

deja	sin, shame	Deja šitam žmogui, kuris ką piktina	DP 519,25
gailu	sorry	Gailu mums nu ghrieku musu	Mž 565,5
gardu	pleasing	ir kas mūmus arba anėmus gārdu	DP 216,33
lengva	easy	Tada bus tau lengvesni (lengviau)	BB2Moz 18, 22
liūba	pleasing	Daryti, kaip jiems liūba yra	Vln 46
miela	nice	kas mūmus arba iėmus miela	DP 216,33
naud- inga	necessary	ioğ iumus priwałų yra ir naudínga	DP 216,10
privalu	necessary	Mumus tatai tikėti labai privalu yra	BPII 11
reikalin ga	necessary	ioğ mūmus abu raštū ant' to pasáulo reikalíngu ešt	DP 112,20
sunku	difficult, hard	ne funku butú mumus mīlet ii	DP 31,15
vargu	difficult, hard	Nes' kitáip ne wārgu iam' búwo	DP 422,16

Original papers

