Universiteit Leiden

Leiden University Centre for Linguistics

Case and non-verbal predication:

The syntax of Lithuanian control clauses

Elena Vaikšnoraitė

1449265

Academic year 2014-2015

Thesis supervisor: Prof.dr. Roberta D'Alessandro

Second reader: dr. Anikó Lipták

Table of Contents

1. Introduction 4
2. Theoretical background 6
   2.1. Case Theory 6
   2.2. Control 10
   2.3. PRO and case 12
   2.4. Agree Model of Control 13
3. Infinitival complements in Lithuanian 20
   3.1. Wurmbrand's Restructuring approach 20
   3.2. The size of control infinitives in Lithuanian 22
   3.3. Control and case in Lithuanian (Timberlake 1988) 29
4. Aim of the study and methodology 32
   4.1. The scope of the study 32
   4.2. The questionnaire 34
5. Results 36
   5.1. Pattern A 37
      5.1.1. Subject control 37
      5.1.2. Object control 39
   5.2. Pattern B 41
      5.2.1. Subject control 41
      5.2.2. Object control 43
   5.3. Summary of the results 45
6. Analysis 47
   6.1. Subject control 47
      6.1.1. Simple subject control 47
      6.1.2. Subject control over an intervening indirect object 48
         6.1.2.1. Indirect objects in Lithuanian 49
      6.1.3. Subject control over an intervening indirect object 50
      6.1.4. Subject control into infinitival complements of NPs 55
   6.2. Object control clauses 58
      6.2.1. Pattern A 58
      6.2.2. Dative case on PRO (Pattern B) 59
         6.2.2.1. Dative subjects in Lithuanian 59
         6.2.2.2. Event modality 64
         6.2.2.3. Impersonal modals 66
         6.2.2.4. Modality and object control in Pattern B 70
         6.2.2.5. Dative PRO in subject control clauses 73
   6.3. Instrumental case 74
      6.3.1. Aspect 75
      6.3.2. Instrumental case and event structure 79
      6.3.3. Distribution of instrumental case 81
   6.4. Instrumental case and outer aspect 84
   6.5. Variation in Lithuanian control clauses 85
7. Concluding remarks 87
8. References 89

List of Abbreviations

1	first person
2	second person
3	third person
ACC	accusative case
APPL	applicative
AUX	auxiliary verb
DAT	dative case
DEF	definite article
F	feminine gender
FOC	focus
FV	final vowel
GEN	genitive case
INDEF	indefinite article
INF	infinitive
INST	instrumental case
IMP	imperative
IMPERS	impersonal
M	masculine gender
N	neuter gender
NOM	nominative case
NEG	negation
PL	plural
PPT	participle
PRO	unpronounced subject of control clauses
PRST	present tense
PST	past tense
SG	singular
SUBJ	subjunctive mood

1. Introduction

In this thesis, I investigate the syntax of infinitival complements in Modern Lithuanian. I focus specifically on case marking on predicative elements in control clauses. Control has been standardly used to refer to a relationship held between an antecedent (*the controller*) and an understood subject of a clause (*the controlee)*. This relationship is exemplified in (1):

(1) a. John decided to leave. (Subject control)
b. John asked Mary to leave. (Object control)

In subject control clauses (1a), the interpretation of the unexpressed subject of the embedded infinitive '*to leave'* is dependent on the subject of main clause: *John* is both the person who made the decision and the person who will be leaving. In object control clauses (1b), the antecedent is the matrix object (*Mary*), i.e. the matrix object is also the understood subject of the infinitival verb.

In languages that express case overtly, the case on non-verbal predicative elements can reveal the case borne by the unexpressed subject. Different languages exhibit different strategies with respect to case marking of PRO. In Ancient Greek (Quicoli 1982: 143; 123), for instance, embedded predicative elements can either bear the same case as the controller (nominative in subject control clause (2a); and dative in object control clause (2b), or an independently motivated accusative case (though this option is only available in object control clauses):

(2)	a.	Dareios	bouletai	polemikos / *polemikon	einai.
		Darius.NOM	want.PRST.3SG	war-like.NOM / *ACC	be.INF
		'Darius wants to be war-like.'			
	b.	Sumbouleuō	soi	prothumōi /prothumon	einai.
		advise.PRST.1SG	you.DAT	zealous.DAT / ACC	be.INF
		'I advise you to be zealous.'			

In Lithuanian, predicative elements in control clauses have been reported (i) to bear the same case as its controller; (ii) to be marked with independently motivated instrumental case, or (iii) independently motivated dative case (Timberlake 1988). The distribution of these three

case-marking strategies is rather murky and no satisfactory theoretical account is yet available. Consequently, the main goals of this thesis are (i) to describe case marking in control clauses based on a data collected from an informant study; (ii) demonstrate that morphological case marking is an important tool that can reveal syntactic structures; (iii) to provide a theoretical account of the distribution of case-marking phenomena in Lithuanian control clauses couched in the minimalist program (Chomsky 1995).

This thesis is organised as follows: Chapter 2 I will introduce general theoretical background pertaining to this thesis. It includes an overview of case theory and control. In section 2.4, Landau's (2000, 2006, 2008b) AGREE approach to control is discussed upon the ideas of which analysis of control clauses in Lithuanian is built.

In Chapter 3, infinitival complements are discussed. Firstly, a restructuring approach to infinitives (Wurmbrand 2001) is introduced, which suggests that the size (or the structural complexity) of the infinitives varies and that the size of the infinitival complements depends on selectional properties of a matrix verb. In the section 3.2, I will apply this approach to Lithuanian control clauses in order to determine the size of infinitival complements. Finally, section 3.3 introduces the only previous theoretical analysis of case marking in Lithuanian control clauses (Timberlake 1988).

In Chapter 4, the scope of this thesis is delimited and the methodology is introduced. Chapter 5 reports the main patterns and tendencies of the newly collected data.

Chapter 6 offers a theoretical analysis of two separate phenomena in Lithuanian: (i) the case marking on PRO in subject and object control clauses and; (ii) instrumental case marking on postcopular XPs in Lithuanian.

2. Theoretical background

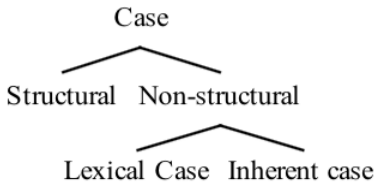
The goal of this chapter is to lay ground for the analyses put forward in chapter 6. The two main areas that will be addressed in this chapter are case theory and the relevant aspects of Landau's AGREE (2000, 2006, 2008) approach to control that will be borrowed and / or adapted in the analysis part of this thesis.

2.1. Case Theory

The standard Case Theory distinguished between an abstract Case and morphological case. Abstract Case was argued to be responsible for licensing NPs / DPs. More recently, however, the importance of abstract Case in syntactic theory has been called into question by Marantz (2000), Haeberli (2003), McFadden (2004), Landau (2006), among others, the issue I will come back to in section 2.3 when discussing case on phonetically silent subject element (PRO).

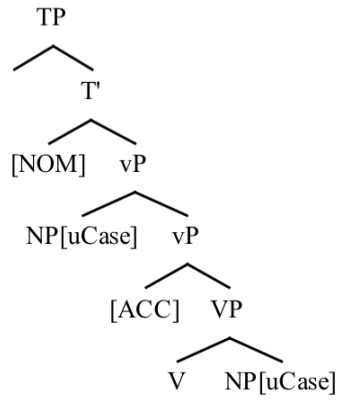
Morphological case, the role of which in syntax has been overlooked for a long time, is traditionally divided into two types: a structural case and a non-structural inherent case (Chomsky 1981, 1986). Structural case is seen as a property of a certain formal configuration, it 'identifies the core grammatical relations subject and object configurationally and interacts with agreement' (Butt and King 2004: 156). Inherent case, on the other hand, subsumes all other types of case marking and is often linked to theta-roles (Chomsky 1981: 171). This traditional dichotomy, however, has been called into question (e.g. Babby 1994, Woolford 2006, among others) once languages with overt case marking were considered. Woolford (2006: 112) suggests that non-structural case should be further broken down into lexical case and inherent case. The case typology proposed by Woolford is presented in (3):

(3)



The distinction between lexical and inherent case is motivated by their semantics as well as syntactic behaviour of these cases. I will now discuss syntactic behaviour of cases presented in (3) separately, starting with structural case.

The most common examples of structural case are subject nominative and object accusative cases. The standard assumption is that nominative and accusative case features reside on functional heads T and *v,* respectively (Chomsky 2000). These functional heads also bear unspecified φ-features (person, gender, and number):
(4)



Structural case assignment is normally seen as a result of an AGREE operation, the definition of which is provided below:

(5) *AGREE* (Chomsky 2000)
α > β
Agree (α, β), where α is a probe and β is a matching goal, '>' is a c-command relation and uninterpretable features of α and β are checked/deleted.

According to the definition of AGREE above, a probe which bears unspecified φ-features enters into an AGREE relation with the closest goal (which bears all φ-features but has no case value) to have these features valued. For instance, the probe is T searches its c-command in order to value its φ-features; once T finds the closest DP goal, it enters into an AGREE relation with values its φ-features. In the process of this AGREE relation, T assigns nominative case to the goal DP, in other words, structural case assignment is seen as a by-product of φ-feature agreement (Chomsky 2000, 2001). Non-structural case assignment, on the other hand, is not

normally seen as the consequence of φ-feature agreement (e.g. Boeckx, Hornstein and Nunes 2010). Let us now discuss non-structural cases in more detail.

Lexical case is truly idiosyncratic: it is unpredictable and is a lexical requirement of certain verbs. For instance, *džiaugtis* 'to rejoice' in Lithuanian takes only instrumental case marked objects (6a), while *atstovauti* 'to represent' requires objects to be dative case marked (6b); examples are taken from Ambrazas et al. 1997: 488; 459):

(6) a. Jie džiaugėsi[1] pergale.
they.NOM rejoice.PST.3 victory.F.SG.INST
'He was glad about the victory.'
b. Jis atstovavo darbininkams.
he.NOM represent.PST.3 worker.M.PL.DAT
'He represented workers.'

The fact that lexical case is truly unpredictable is even clearer in Russian. Schoorlemmer (1995: 70) shows that even verbs that have similar meaning can differ with respect to case they assign to their objects. In Russian, *predat'* 'to betray / deceive' assigns instrumental case to its object, while *izmenit'* 'to betray / deceive' takes a dative case marked objects. This proves that lexical case is truly idiosyncratic. Since it is unpredictable, Babby (1994: 644), argues that it makes no semantic contribution to the sentence's interpretation; a property that lexical case shares with structural case.

Inherent case, on the other hand, arguably contributes to the semantics of a sentence. Inherent case is regular as it is associated with certain theta-roles. For instance, indirect objects cross-linguistically (or at least in the Indo-European languages) tend to be marked with dative case:

(7) a. Lithuanian Paduok man obuolį.
give.IMP I.DAT apple.M.SG.ACC
'Give/Pass me an apple.'
b. Russian Podai mne jabloko.
give.IMP I.DAT apple.N.SG.ACC

[1] Lithuanian makes no distinction in inflectional endings of singular and plural third persons:
Jis / Ji / Jie / Jos skaito knygą.
he.NOM she.NOM they.M.NOM they.F.NOM read.PRST.3 book.M.SG.ACC
'He / she / they are reading a book.'

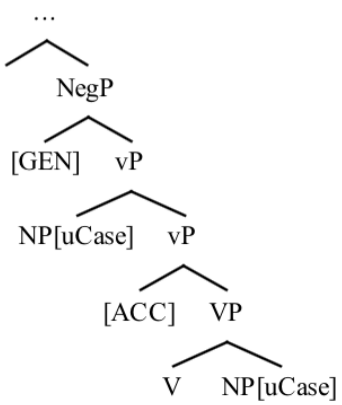
c.	German	Gib	mir	einen	Apfel.
		give.IMP	I.DAT	INDEF.M.SG.ACC	apple.M.SG.ACC

This dative case in (7) is thus is linked to the Recipient's theta-role.

There are some diagnostic tests that are employed to distinguish between structural and non-structural cases (for an overview see e.g. Woolford 2006). One way to determine whether a case is structural or non-structural case is consider its behaviour in case conflicts: a structural case can be overridden by a higher structural case, while a non-structural case would remain unaffected.

In Slavic languages, negation enforces genitive case on direct objects (the phenomenon is known as genitive of negation). Negation in Russian has been argued to be introduced in a separate projection (e.g. Bailyn 1997, Brown 1999, among others), which hosts a genitive case feature. This genitive case of negation is argued to be an instance of structural case (Bailyn 1997, Brown 1999, among others).

(8)



Lithuanian has the same rule, i.e. it has a productive Genitive of Negation. Let us now compare how an idiosyncratic lexical case and a structural accusative case behave in the presence of negation in Lithuanian:

(9)	a.	Aš	skaitau	knygą.
		I.NOM	read.PRST.1SG	book.F.SG.ACC
		'I am reading a book.'		
	b.	Aš	neskaitau	knygos.
		I.NOM	NEG.read.PRST.1SG	book.F.SG.ACC
	c.	Aš	džiaugiuosi	pergale.

I.NOM rejoice.PRST.1SG victory.F.SG.INST
'I rejoice in the victory.'

d. Aš nesidžiaugiu pergale.
I.NOM NEG.rejoice.PRST.1SG victory.F.SG.INST

In (9a), *knyga* 'book' receives a structural accusative case from *v*. When the same verb is negated (9b), then genitive case of negation takes precedence over structural accusative case. The verb *džiaugtis* 'to rejoice' requires an idiosyncratic instrumental case marking on its object (9c). When the verb is negated, the object *pergale* 'victory' is unaffected, i.e. it still bears the same case marking (9d).

The main generalisation here is that a structural case (here, genitive of negation) can override another structural case but not a non-structural one. We will make use of this fact in Chapter 6, when discussing case-marking on PRO.

2.2. Control

This subsection introduces an overview of control. Control is a conventional term used to mark 'a relation of referential dependence between an unexpressed subject (the *controlled* element) and an expressed or unexpressed constituent (the *controller*); the referential properties of the controlled element <…> are determined by those of the controller' (Bresnan 1982: 372). Since as early Rosenbaum (1967), control has been contrasted with raising, compare the following clauses:

(10) a. John wanted to kiss Mary. (Control)
b. John appeared to like Mary. (Raising)

In a control clauses (10a), there is an identity relation between the overt subject of *want* and a non-overt subject of *leave,* i.e. *John* is understood as both the 'the person who wants' and the 'the person who will kiss Mary.' In a raising clause like (10b), *John* is only understood as a person who likes Mary. This interpretational difference between (10a) and (b) is captured by arguing that the two clauses have different structures in syntax. The subject *John* of (10b) originates in the embedded clause as an external argument of the infinitival verb *like,* and then moves to the matrix clause. In control clauses (10b), however, the subject position of the infinitival verb is filled by a phonetically null subject, PRO. This phonetically null element is anaphorically linked to an argument in the main clause (in this particular case, PRO is linked to the matrix subject *John*). The necessity to postulate a phonetically empty element in the

subject position of infinitival verb comes from the Theta Criterion, the definition of which is provided below:

(11) The Theta Criterion (Chomsky 1981: 36)
Each argument bears one and only one theta-role, and each theta-role is assigned to one and only one argument.

As indicated in (11), the Theta Criterion introduces a restriction upon arguments; *John* thus cannot bear the subject roles that of a *want* and *kiss* at the same time. The theta role of the embedded infinitive thus is subsumed by PRO:

(12) $John_i$ wanted PRO_i to kiss Mary.

It should be noted, however, that some scholars (e.g. Hornstein 1999, 2001, Boeckx and Hornstein 2006, Boeckx, Hornstein and Nunes 2010, among others) argue that PRO is unnecessary and that control clauses can be analysed as instances of movement, meaning that essentially raising and control clauses are derived in the same way – via movement. The only difference between raising and control is that the embedded subject NP moves from a theta-position to a non-theta position in raising clauses, while there is theta-to-theta movement in control clauses. This approach thus rejects the Theta Criterion (11), as a DP can bear more than one theta role. I will not list advantages and disadvantages of movement analysis of control, I will just point out that the movement analysis of control (apart from violating the Theta Criterion) encounters problems when trying to account for case marking on predicative elements in infinitival complements of control verbs. This issue as well as other problematic aspects of raising analysis of control are discussed at length by San Martin (2004), Landau (2008a), Bobalijk and Landau (2009), Rooryck (2008), Sigurðson (2008), among others.

Up to this point, I have discussed control as if it were a uniform phenomenon; this is, however, not to the case. There are a few different types of control that are classified depending on nature of the relation between the controller and PRO. For instance, control configurations since Williams (1980) are traditionally classified into obligatory and non-obligatory control:

(13) a. John tried PRO to win the game.
b. John wondered PRO_{arb} how to win the game.

In (13a), PRO is anaphorically linked to *John*, while in (13b) PRO is not linked to any element in the matrix clause, it refers to some abstract / generic subject. Furthermore, Landau (2000) suggests splitting obligatory control into exhaustive and partial. While the difference between the two is not always clear-cut, the two types of control are exemplified in (14):

(14) a. $John_i$ tried PRO_i to leave.
b. The $chair_i$ preferred [PRO_{i+} to gather at 6].

In (14a), PRO refers exclusively to *John*, i.e. there is one-to-one matching between the subject of the main clause and the embedded infinitive, this is indicated by the subscript 'i' on both on the controller and PRO. In (14b), however, PRO includes *the chair* but is not exclusive to it, i.e. the reading of PRO would include other people. While Landau (2000) argues that both clauses in (14) are instances of obligatory control, Wurmbrand (2001) proposes that clauses like (14b) should be regarded instances of non-obligatory control. In her view, only clauses with complete identity between PRO and its antecedent are instances of obligatory control. I will refrain from taking sides here, however, I will only consider exhaustive control clauses (like 14a) in this thesis. The main reason for only considering (exhaustive) obligatory control clauses is that the type of control has an influence on syntactic structure as shown by Wurmbrand (2001) and Landau (2008).

2.3. PRO and case

PRO differs from lexical NPs in a sense that it is always phonetically silent, i.e. it has no morphologically overt realization. For a long time thus PRO has been contrasted with lexical NPs in other ways as well. For instance, lexical NPs have to be assigned a formal abstract Case feature to be licensed in a syntactic structure (the requirement known as the Case Filter), while PRO, which is phonetically silent, could appear only in positions that did not assign an abstract Case feature (Chomsky 1981). This approach to PRO has since been abandoned, yet the idea that PRO differed from lexical NPs with respect to case survived. For instance, Bouchard (1984) argued that PRO argued to appear in case-less positions, Chomsky and Lasnik (1993), Bošković (1997), Martin (1996, 2001), among others, suggested that PRO bears a special kind of null case, which is idiosyncratic to PRO.

Indications that PRO is case-marked just as regular NPs, however, was available as early as Andrews (1971). The evidence that PRO is case marked comes from case concord facts as will be explicated below. In languages that allow predicative elements to bear case, the case

on these predicative elements depends on the case borne by a local NP. Consider, for instance, Latin examples below (Cecchetto and Oniga 2004: 142-143):

(15) a. Ego sum bonus.
I.M.SG.NOM be.PRST.1SG good.M.SG.NOM
'I am good.'

b. Ego volo esse bonus.
I.M.SG.NOM want.PRST.1SG PRO be.INF good.M.SG.NOM
'I want to be good.'

In (15a), the adjective *bonus* 'good' agrees with the local subject *ego* 'I' in all φ-features as well as case. In control clauses (15b), PRO is covert thus we cannot actually see any φ-features or case on PRO. However, since the adjective *bonus* 'good' is associated with a local subject, which in this case is PRO, and it is inflected for nominative case, we can conclude that PRO itself bears nominative case.

The evidence of PRO being case-marked is now reported for other languages: e.g. Russian (Comrie 1974; Franks and Hornstein 1991; Landau 2008b), Icelandic (Sigurðson 1991), Polish (Franks 1995), among others.

Among these languages, Russian has received special attention because PRO can either bear either the same case as its controller (16a) or an independently motivated case that does not coincide with the case borne by the controller (16b):

(16) a. … DP $_{[\alpha Case]}$ … PRO $_{[\alpha Case]}$
b. … DP $_{[\alpha Case]}$ … PRO $_{[\beta Case]}$

I will discuss some relevant aspects of case marking on PRO in Russian in the next section, though for more detailed distributional facts see Landau (2008) and references therein.

2.4. Agree Model of Control

In this section, I will introduce the AGREE approach to control developed by Landau (2000, 2004, 2006, 2008b). The idea that agreement and control make use of the same syntactic mechanisms goes back to Borer (1989)[2]. In Landau's model, control is implemented via

[2] The underlying idea that control is established via MULTIPLE AGREE is also defended in Gallego (2011). However, Gallego does not discuss languages with overt case marking, I will thus limit myself to introducing Landau's approach.

Chomsky's AGREE operation, which holds between a relevant functional head (T in subject control, and *v* in object control) and PRO in the infinitival clause, which bears unvalued φ-features and case.

Chomsky's AGREE (2000, 2001) is a single operation between a probe and a matching goal. This operation is single in a sense that once the relation is established and all features are checked, neither the probe nor the goal are taking part in further derivation. The definition of AGREE is provided in (17):

(17) *AGREE* (Chomsky 2000)
α > β
AGREE (α, β), where α is a probe and β is a matching goal, '>' is a c-command relation and uninterpretable features of α and β are checked/deleted.

This AGREE relation can be blocked under certain circumstances, which are explicated below:

(18) *The Defective Intervention Constraint* (Chomsky 2000: 123)
α > β > γ
*AGREE (α, γ), α is a probe and β is a matching goal, β is inactive due to a prior AGREE with some other probe.

(18) suggests that a probe cannot establish an AGREE relation with a further goal, if there is another matching goal intervening. Landau accepts the idea of defective intervention, but he refines Chomsky's AGREE by adopting Hiraiwa's (2001: 70) idea of MULTIPLE AGREE:

(19) MULTIPLE AGREE
α > β > γ
AGREE (α, β, γ) where α is a probe and both β and γ are matching goals for α.

Under Hiraiwa's MULTIPLE AGREE, a probe may have a [+multiple] feature, whereby it can establish more than one relation with more than one goal. A probe α searches its c-command domain until it finds *all* matching goals and then establishes an AGREE relation with all matching goals *simultaneously*. Since the AGREE operations takes place simultaneously β does not act as a defective intervener. Landau, however, suggests that this operation is not simultaneous (at least not in control clauses), but that it is, in fact, successive. The probe T/*v* first establishes AGREE relation with a local DP goal (the controller), whereby the φ-features

of T/*v* are valued; then the same functional head enters into another AGREE relation this time with PRO. T/*v* then transmits the φ-features of the antecedent to PRO and in the process also assigns case to PRO. In we consider MULTIPLE AGREE to be a step-by-step operation (which we have to assume in order to account for the fact that PRO *always* bears the same φ-features as its antecedent), then we would expect the controller to become an inactive goal and block T/*v* from establishing an AGREE relation with PRO (18). Landau adopts the Principle of Minimal Compliance to circumvent this problem, the definition of which is provided in (20):

(20) *Principle of Minimal Compliance* (Richards 2001: 199)
If the tree contains a dependency headed by H, which obeys constraint C, any syntactic object G which H immediately c-commands can be ignored for purposes of determining whether C is obeyed by other dependencies.

The notion of *immediate c-command* in this context is defined as follows:

(21) *Immediate c-command* (Richards 2001: 199)
A immediately c-commands B iff the lowest node dominating A dominates B and there is no C such that A asymmetrically c-commands C and C asymmetrically c-commands B.

The basic idea of (20) is that an ill-formed dependency can be saved by the presence of a well-formed dependency: in this particular case, T/*v* establish a well-formed dependency with the controller (AGREE relation), and the controller is ignored for the purposes of further derivation, which enables T/*v* to establish an AGREE relation with PRO.

Now let us move on to how this AGREE relation between a functional head T/*v* and PRO is established. The underlying assumption of Landau's approach is that all infinitival complements are necessarily CPs. This AGREE relation then can be established via two 'routes': a PRO-control route (22a), whereby a relevant functional head establishes a direct AGREE relation with PRO; or a C-control route (22b) where an AGREE relation between T/*v* and PRO is mediated by a complementizer C. In C-control route, T/*v* agrees with the complementizer C, and in turn, this complementizer C establishes an AGREE relationship with PRO, whereby transmitting φ-features and case onto PRO.

(22) a. … T/v … DP … [CP C [TP PRO_{φ} T] …] *(PRO-control)*

b. … T/v … DP … [CP C_{φ} [TP PRO_{φ} T] …] *(C-control)*

Since the topic of this thesis is case marking on PRO and predicate elements, I will mainly discuss ideas presented in Landau (2008) since the focus of that particular paper is the case alternation on PRO (mostly, in Russian).

Recall that in Russian, PRO can either bear the same case as its controller or an independently motivated dative case (Comrie 1974, Greenberg and Franks 1991, Franks 1995, Landau 2008b, among many others).

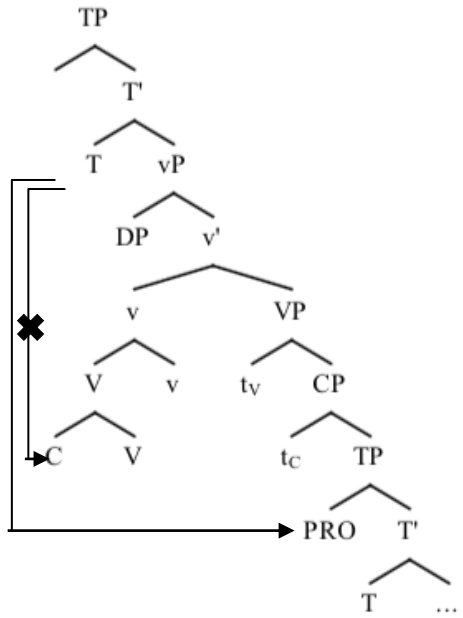
Landau suggests that different control routes (22) have different consequences for case marking on PRO. He hypothesises that the independently motivated dative case surfacing on PRO is an optional feature residing on C. The choice of the control route consequently has big implications: direct PRO-control route will always result in PRO bearing the same case as its controller; while C-control route may result in dative case marked PRO (iff C with a φ-features and dative case is selected). I will not go into details of the distribution of PRO-control and C-control routes in Russian control clauses since there is a lot of variation (yet see Landau 2008b: 899 for distributional facts). Crucially, however, Landau assumes that the PRO-control route and the C-control route are theoretically always available. There are, however, configurations in which only one of the control routes is available, e.g. PRO-control route is the only available option in simple subject control clauses. In such cases, there are some syntactic principles that rule out one of the control routes.

I will now illustrate how PRO receives case in simple subject control clauses. In these clauses, PRO is always nominative:

(23) Kostja obeščal PRO.NOM prijti odin.
Kostja.M.SG.NOM promise.PST.3SG PRO.NOM come.INF alone.M.SG.NOM.
'Kostja promised to come alone'

Landau suggests that in simple subject control clauses (23), the C-control route is blocked. The abstract derivation of a subject control clause is presented in (24):

(24)



As you can see from the derivation in (24), Landau (2008: 900), following (Pesetsky 1991, Richards 1999, Bošković and Lasnik 2003), assumes that a phonetically null complementizer (at least) in Russian is a clitic and that attaches to a higher head. When complementizer *C* cliticises to *v*, the C-control route is blocked, as a result of that PRO can never bear dative case. Now the question is why C-control route is ruled out if C cliticizes to *v*. Landau argues that the C-control route is blocked because *v* bears a bundle of unvalued φ-features. He proposes that because complementizer C bearing unvalued φ-features attaches to *v*, which bears its own set of unvalued φ-features makes C an inaccessible goal for the probe T. Landau formalises this as a Featural A-over-A intervention effect, the definition of this intervention effect is provided in (25):

(25) Featural A-over-A (Landau 2008: 911)
Given [X … [$_Y$ Y_α …Z_β]$_\alpha$], where X, Y, Z are heads and α, β are comparable feature sets: Y is an intervener for AGREE (X, Z) iff b⊆ a.

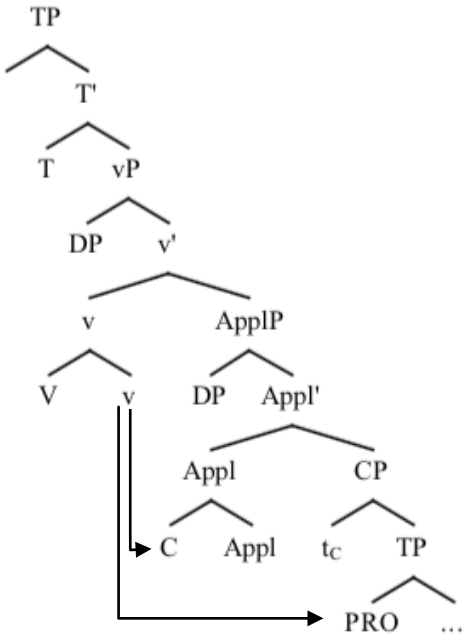
In simple words, Y cannot become an actual goal to some probe if it is embedded under a different (and naturally, closer) goal with a similar set of features. For Y to be able to be an actual goal, its features have to be sufficiently different from the features of element that it is embedded under. By sufficiently different, Landau means that 'being a subset of, or identical to, the intervening feature set is obviously not sufficiently different.'

In (24) both *v* and *C* bear a set of φ-features. Under Featural A-over-A (25), the fact that *v* bears φ-features makes C an inaccessible goal, despite the fact that φ-features on *v* do not play any role in the derivation, except that in this configuration they block C-control. Nonetheless, since C-control is blocked, Landau can account for the fact that PRO can never surface with dative case marking.

Now let us turn to object control, where PRO can either bear the same case as its controller or independent dative case (Landau 2008b: 886):

(26) Ona poprosila ego ne ezdit'
she.NOM ask.PST.3SG.F he.ACC PRO.DAT/ACC NEG go.INF
tuda odnogo / odnomu zavtra.
there alone.M.SG.ACC / DAT tomorrow
'She asked him not to go there alone tomorrow.'

Landau (2008b: 901) hypothesises that in object control clauses, indirect objects are merged in the specifier of an Applicative Phrase (*ApplP;* I will address the motivation for *ApplP* in section 6.2.2.1). Consider now the abstract syntactic derivation of object control clauses, where both C-control and PRO-control routes are available (Landau 2008b: 902):
(27)



In these types of clauses, phonetically null complementizer cliticizes to *Appl* (which supposedly bears no φ-features), thus when *v* probes its c-command searching for a potential

goal, there is no Featural A-over-A intervention (25) and both control routes can be employed. If C bears φ-features and dative case, then PRO will be dative case-marked if, of course, C-control route is selected.

As can be noted from the short introduction to Landau's analysis of distribution of case on PRO in Russian, this account rests on a substantial amount of stipulations: (i) all infinitival complements are CPs; (ii) C can bear an optional dative case feature; (iii) phonetically silent C is a clitic, which can attach to another phonetically silent element ($Appl^0$); (iv) Featural A-over-A intervention, (v) the choice between control routes is 'true optionality.' I will thus not accept Landau's proposal in its current form. In the next section, I will examine the structural complexity of Lithuanian infinitives embedded under control verbs to determine whether infinitival complements are CPs in Lithuanian.

3. Infinitival complements in Lithuanian

One of the core assumptions of Landau's AGREE model of control is that all infinitival complements are CPs, one of the reasons for this assumption is the idea of the uniformity of the clause structure, or in other words, the idea that all clauses are created equal. This viewpoint, however, is not shared by all linguists: e.g. Bošković (1996, 1997) argues that control verbs take infinitival IPs (TPs) as complements; Chierchia (1984a, 1984b) and Wurmbrand (2001) propose that all obligatory control verbs take bare VP infinitives as complements, i.e. the infinitives themselves do not project an external argument position. In this section, I will first introduce Wurmbrand's (2001, 2002) restructuring approach to infinitival complements, which suggests that the size of an infinitival complement is not fixed but depends on the selectional properties of the main verb. Then I will determine the structural complexity of infinitives in Lithuanian obligatory control clauses.

3.1. Wurmbrand's Restructuring approach

Wurmbrand (2001) argues that infinitives (in German) range from being bare VPs to *v*Ps, TPs, and CPs. The size of the infinitive depends on the selectional properties of the main verb. The size of the infinitival complement has various implications: types of infinitival clauses in German and syntactic properties associated with them are presented in Table 1:

TABLE 1 GERMAN INFINITIVAL CONSTRUCTIONS (WURMBRAND 2001: 3)

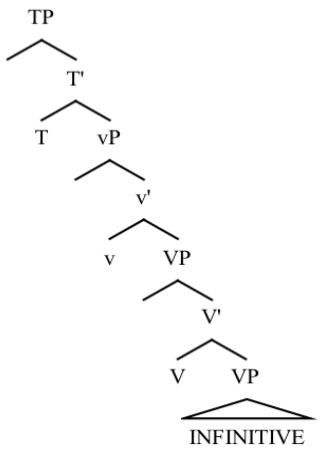
Type	Size of INF	Properties	(Im)possible operations
Restructuring:			
Lexical	INF = VP	• no PRO subject • no embedded structural case • no embedded tense • no embedded negation	possible: • long object movement • scrambling • pronoun fronting impossible: • ??extraposition of infinitive • relative clause pied-piping
Functional	INF = main predicate	• thematic properties are determined by the embedded predicate • raising predicates	possible: • IPP effect • raising impossible: • extraposition of infinitive • matrix passive • relative clause pied-piping
Non-restructuring:			

Reduced	INF = *v*P or TP	• PRO subject • embedded structural case • embedded tense • embedded negation	possible: • pronoun fronting • focus scrambling • %extraposition of infinitive impossible: • long object movement • non-focus scrambling • relative clause pied-piping
Clausal	INF = CP	• PRO subject • embedded structural case • embedded tense • possible with: all lexical predicates	possible: • relative clause pied-piping • extraposition of infinitive impossible: • long object movement • scrambling • pronoun fronting • %intraposition of infinitive

As can be noted from Table 1, different types of infinitival complements share many syntactic properties, a natural consequence of that is that it is not easy to determine the size of infinitives as there is no one single test that can be used to distinguish between restructuring and non-restructuring properties. Crucially, however, a restructuring verb creates a mono-clausal structure and should exhibit no characteristics of a non-restructuring verb.

Since control clauses cannot involve functional restructuring (as they are contrasted with raising clauses, the issue discussed in 2.2), the question is whether control verbs are lexical restructuring verbs that select subject-less VPs or non-restructuring verbs. Wurmbrand argues, following Chierchia (1984a, 1984b), that PRO is absent from all obligatory control clauses and the interpretation of exhaustive control is achieved lexically / semantically. An abstract derivation of a control clause as argued by Wurmbrand is provided in (28):

(28)



As you can see in (28), there is only one subject position in this structure, the spec,*v*P of the matrix verb; the fact that the subject of the matrix verb is also the understood subject of the embedded infinitive is encoded lexically / semantically; while PRO is restricted to non-obligatory control clauses.

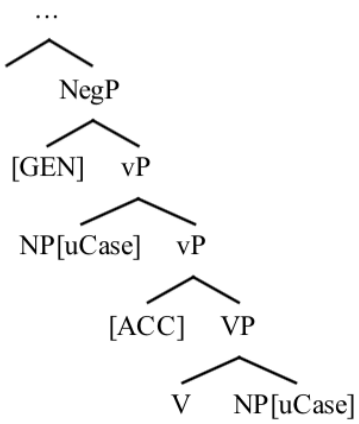
While most of the diagnostic tests suggested by Wurmbrand cannot be directly applied to Lithuanian, in the next section, I will run some diagnostic tests suitable for Slavic languages to determine the structural complexity of infinitival complements of control verbs in Lithuanian.

3.2. The size of control infinitives in Lithuanian

In this subsection, I discuss the size of Lithuanian infinitival complements: first, I will argue that infinitival complements are not CPs, then I will suggest that obligatory control clauses (at least in Lithuanian) have two subject positions (contra Wurmbrand 2001).

Firstly, recall that in Slavic linguistics the genitive of negation is argued to be a structural case (Bailyn 1997, Brown 1999, among others), which is located in a dedicated projection (NegP) above the verb.

(29)



NegP assigns genitive case to the verb's object. In Lithuanian (and most Slavic languages), genitive of negation is said to be clause-bound; compare the following clauses:

(30) a. Aš skaitau knygą.
I.NOM read.PRST.1SG book.F.SG.ACC
'I am reading a book.'

b. Aš neskaitau knygos.
I.NOM NEG.read.PRST.1SG book.F.SG.GEN
'I am not reading a book.'

c. Aš nenoriu, kad tu skaitytum
I.NOM NEG.want.PRST.1SG that you.NOM read.SUBJ.2SG
knygą / *knygos.
book.F.SG.ACC / GEN
'I don't want you to read a book.'

The object *knyga* 'book' is inflected for accusative case in (30a); when the same verb is negated the object is marked with genitive case rather than accusative (30b). In a truly bi-clausal example with an overt complementizer *kad* 'that' (30c), the genitive of negation is blocked and the embedded object obligatorily bears accusative case. These facts suggest that genitive of negation is a clause-bound phenomenon in Lithuanian. Marušič (2005: 119) for the same phenomenon in Slovenian suggests that ' …the fact that the effect of negation is blocked in embedded clauses is most naturally correlated with the CP projection and the phase that it creates. CP being a phase blocks AGREE and without this long distance relation, genitive cannot be licensed inside the embedded clause.' Now let us consider Lithuanian control clauses:

(31) a. Aš noriu skaityti knygą.
I.NOM want.PRST.1SG read.INF book.F.SG.ACC
'I want to read a book.'

b. Aš nenoriu skaityti knygos / ??knygą.
I.NOM NEG.want.PRST.1SG read.INF book.F.SG.GEN / ACC
'I don't want to read a book.'

c. Tėvai nemoko vaikų / *vaikus dažyti
parent.M.PL.NOM NEG.teach.PRST.3 child.M.PL.GEN / ACC paint.INF
tvoros / ?tvorą.
fence.F.SG.GEN / ACC
'Parents do not teach the children to paint the fence.' (Arkadiev 2015: 2)

As you can see from examples in (31), genitive case is preferred to structural accusative case in subject (31b) and object (31c) control clauses. Since genitive of negation can have an effect on an embedded object in control clauses, one can either assume that there is a CP-layer but CP in control clauses is not a strong phase (this position is taken by Landau 2008b), or

alternatively, we can argue that the CP-layer is absent from these clauses. In this thesis, I will follow Bošković's (1996: 25) idea of Minimal Structure Principle, the definition of which is provided in (32):

(32) *Minimal structure principle* (Bošković 1996: 25)
Provided that lexical requirements of relevant elements are satisfied, if two representations have the same lexical structure and serve the same function, then the representation that has fewer projections is to be chosen as the syntactic representation serving that function.

Minimal structure principle limits the number projections only to the ones that are motivated. Since there is no overt C material in control clauses and genitive of negation can affect embedded objects, I suggest that all obligatory control clauses in Lithuanian are CP-less. This proposal is not unprecedented, for instance, Marušič (2005: 119) takes a similar stand with respect to control clauses in Slovenian, where genitive of negation can affect an embedded object in infinitival complements of control verbs:

(33) a. Stane še ni sklenil kupiti hiše.
Stane yet AUX.NEG decide buy.INF house.GEN
'Stane hasn't decided yet to buy a house.'
b. Petra Meti ni zapovedala kupiti avtomobila.
Petra Meta.DAT AUX.NEG order buy.INF car.GEN
'Petra didn't order Meta to buy a car.'

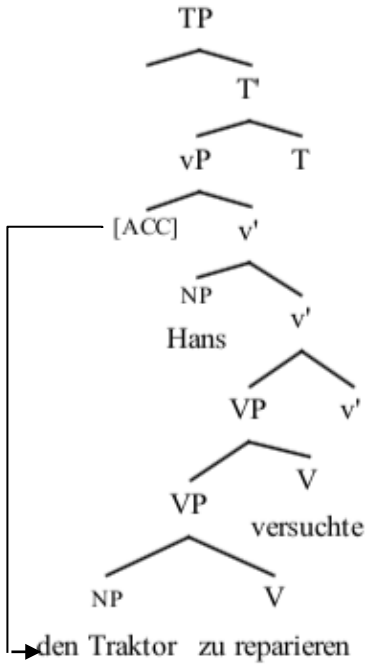
Marušič (2005: 119) consequently suggests that '[n]on-finite complementation must lack a CP node.'

Now let us discuss a property that can help us determine whether control verb in Lithuanian are lexical restructuring verbs (that take bare VPs as complements) or reduced non-restructuring verbs (selecting *v*P/TP infinitives). Wurmbrand (2001) argues that obligatory control clauses lack *v*P, the function of which is twofold: (i) it assigns a theta role an external argument; (ii) it assigns a structural accusative case to its object. Embedded objects, naturally, are not ungrammatical in control clauses, as is exemplified in (34):

(34) …weil Hans den Traktor zu reparieren versuchte.
since John DEF.M.SG.ACC tractor to repair.INF try.PST.3SG
'since John tried to repair the tractor'

The question then is what assigns case to the embedded object. Wurmbrand (2001: 17) argues that (at least in German) embedded object receives its case value from the matrix verb and not the infinitive:

(35)



As is exemplified in (35), the embedded object receives its case from the matrix *v*P and not the infinitival verb. The argument supporting this idea comes from the fact that if case-assigning properties of the matrix verb are changed (e.g. it is passivized) or if the matrix verb is unaccusative (and consequently does not license structural accusative case), then the object obligatorily takes nominative case and enters into an agreement relation with the matrix verb. Wurmbrand illustrates this process with long passives in German:

(36)	a.	weil	der	Traktor	zu	reparieren	versucht	wurde.
		since	DEF.M.SG.NOM	tractor.M.SG	to	repair.INF	try.PST.PPT	be.PST.3SG
		'since they tried to repair the tractor.'						
	b.	weil	die	Traktoren	zu	reparieren	versucht	wurden.
		since	DEF.M.PL.NOM	tractor.M.PL	to	repair.INF	try.PST.PPT	be.PST.3PL
		'since they tried to repair the tractors.'						

Recall that in (34), the embedded object *den Traktor* 'the tractor' was marked with accusative case. In (36a) and (36b) the matrix verb is passivized, resulting in nominative case marking on *der Traktor* 'the tractor' and *die Traktoren* 'the tractors.' Furthermore, *der Traktor* 'the tractor' and *die Traktoren* 'the tractors' determine number on auxiliary wurden 'to be.PST'

At the first blush, Lithuanian behaves on par with German. Compare the following clauses in active voice and long passives:

(37) a. Jonas pradėjo statyti namą.
John.SG.NOM begin.PST.3 build.INF house.M.SG.ACC
'John started building a house.'

b. Namas pradėtas statyti.
house.M.SG.NOM begin.PPT.M.SG.NOM build.INF
'They began to build a house.'

c. Namai pradėti statyti.
house.M.PL.NOM begin.PPT.M.PL.NOM build.INF
'They began building houses.'

As you can see the embedded object is marked with accusative case (37a) in active sentences. If we passivize the matrix verb and it becomes a participle, accusative case marking disappears, and the same lexical item *namas* 'house' has to be nominative case marked. Furthermore, the participle agrees in gender and number with nominative case marked *namas* 'house.' It would seem then that Lithuanian behaves on par with German, and that Lithuanian infinitives do not project a *v*P-layer. However, Lithuanian has yet another passivisation strategy:

(38) Namą pradėta statyti.
house.M.SG.ACC begin.PPT.IMPERS build.INF
'They started building a house.'

The passive participle in (38) is impersonal (or to be more precise non-agreeing): it bears neuter gender marking and does not agree with *namas* 'house' in number. In this particular construction, the accusative case marking on the embedded object is retained. This strategy is older, though due to the loss of neuter gender in Lithuanian it is becoming more rare (Ambrazas et. al 1994: 323, Holvoet 1998: 233), though it is not by any means ungrammatical. Crucially, however, at this point in time Lithuanian has two strategies for passives: one with the embedded object retaining its case, and another with the embedded object being nominative case marked.

Holvoet (1998) proposes that there is a link between the grammaticality of nominative objects in clauses (37a) and (b) and the grammaticality of embedded nominative objects of infinitives

in Lithuanian (a property which is not shared by German). Lithuanian exhibits a possibility of marking embedded objects of infinitives with nominative case in certain constructions next to regular accusative case marking. Consider the following examples with impersonal modal (39a) and psych-verb (b):

(39) a. Reikia laukai arti.
need.IMPERS.PRST field.M.PL.NOM plow.INF
'Fields have to be plowed.'

b. Man nusibosta laikraščiai skaityti.
I.DAT bore.IMPERS newspaper.M.PL.NOM read.INF
'It is boring for me to read newspapers.'

Both *laukai* 'fields' and *laikraščiai* 'newspapers' are embedded objects, yet they are assigned nominative case despite the fact that they do not behave as subjects, i.e. they do not trigger agreement (for a theoretical analysis of nominative case objects see Franks and Lavine 2005). Since objects of infinitives can be marked with nominative case in Lithuanian, it seems to me that examining case-marking properties of long passives is not reliable diagnostics for determining whether *v*P-layer is present in infinitival complements of control verbs. Instead, I will consider clauses with case conflicts; more precisely, I will consider clauses in which the matrix verb and the infinitive require different cases on their respective objects.

(40) a. Aš noriu obuolio.
I.NOM want.PRST.1SG apple.M.SG.GEN
'I want an apple.'

b. Aš suvalgiau obuolį.
I.NOM ate.PST.1SG apple.M.SG.ACC
'I ate an apple.'

c. Aš noriu suvalgyti obuolį.
I.NOM want.PRST.1SG eat.INF apple.M.SG.ACC
'I want to eat an apple.'

Norėti 'to want' requires a genitive-case marked object (40a), while *suvalgyti* 'to eat' enforces structural accusative case (40b). Now if we use both of these verbs in a subject control construction (40c), we see that the embedded object *obuolys* 'apple' receives accusative case, which is a requirement of the infinitive and not genitive case of the matrix verb *norėti* 'to want.' Let us now turn to object control clauses:

(41) a. Aš paparašiau obuolio.
I.NOM ask.PST.1SG apple.M.SG.GEN
'I asked for an apple.'

b. Aš paparašiau Jono suvalgyti obuolį.
I.NOM ask.PST.1SG John.SG.GEN eat.INF apple.M.SG.ACC
'I asked John to eat an apple.'

Paprašyti 'to ask' assigns genitive case to its object (41a). In object control clauses (41b), however, the embedded object does not surface with genitive case marking as we would if the case of embedded object was, in fact, valued the main verb.

Furthermore, an embedded object in control clauses can bear a lexical case assigned by the infinitive. Recall that *džiaugtis* 'to rejoice' assigns instrumental lexical case to its object. If we embed this verb under a control verb, then we see that the embedded object both in subject (42a) and object (b) control clauses retains instrumental case.

(42) a. Aš noriu pasidžiaugti pergale.
I.NOM want.PRST.1SG REFL.rejoice.INF victory.F.SG.INST
'I want to rejoice in a victory.'

b. Aš įtikinau Joną džiaugtis pergale.
I.NOM convice.PST.1SG John.M.SG.ACC REFL.rejoice.INF victory.F.SG.INST
'I conviced John to be happy about the victory.'

Given the murky status of nominative case marking on objects in long passives in Lithuanian and evidence from case conflicts, I conclude that infinitives selected by control verbs are minimally *v*Ps.

In conclusion, in this section I have argued that infinitival complements of control verbs in Lithuanian do not project a CP-layer (contra Landau 2008b) and are at least *v*Ps (contra Wurmbrand 2001, 2002). In Chapter 6, I will endorse Landau's (2000, 2004, 2008) proposal that PRO receives case via a MULTIPLE AGREE relation with a relevant functional head (T/*v*). The fact that we dispensed with the CP-layer, has to has two major consequences for our analysis: (i) T/*v always* establishes a direct AGREE relation with PRO, i.e. there is no C-control route; (ii) since there is no C-control route, then C is also not responsible for optionally assigning a case feature. In the next section, I will introduce the only theoretical analysis of case-marking phenomena in Lithuanian control clauses.

3.3. Control and case in Lithuanian (Timberlake 1988)

Timberlake (1988) is the first (and to the best of my knowledge the only) description and analysis of case marking on predicative elements in Lithuanian control clauses. Timberlake's analysis is couched within a version of categorial grammar, I will not introduce the framework itself as it is very different from the minimalist programme that this thesis is couched in. I will however, introduce the main points of his analysis. But before I do that, let us get acquainted with the data reported in Timberlake (1988).

Timberlake reports, on the basis of a self-compiled corpus study and grammaticality judgements of a handful of informants, that in Lithuanian predicative adjectives and participles normally bear either instrumental case, or the same case as the matrix subject (Timberlake 1988: 190). The patterns are illustrated in (43):

(43) a. Jis norėjo būti pasiruošęs /?pasiruošusiu.
he.NOM want.PST.3 be.INF ready.PPT.M.SG.NOM /ready.PPT.M.SG.INST
'He wanted to be ready.'

b. Jis prižadėjo būti pasiruošęs / pasiruošusiu.
he.NOM promise.PST.3 be.INF ready.PPT.M.SG.NOM ready.PPT.M.SG.INST
'He promised to be ready.'

c. Vadžiomis tėvas mokė jį iš
whip.F.PL.INST father.M.SG.NOM teach.PST.3 he.ACC from
pat mažystės būti *paklusnų / paklusniu
very childhood.F.SG.GEN be.INF obedient.M.SG.ACC / INST
'From his early childhood his father taught him with whips to be obedient.'

d. Ji patarė jam būti pasiruošusiam / pasiruošusiu.
she.NOM advide.PST.3 he.DAT be.INF prepared.PPT.M.SG.DAT / INST
'She advised him to be prepared.'

In (43a) and (b), you can see subject control clauses, where both nominative and instrumental cases are available, though Timberlake (1988: 190) suggests that nominative case is preferred in the presence of 'semantically-weak' / auxiliary-like main predicate as in (43a). In object control clauses with accusative objects (43c), accusative case is ungrammatical on predicative elements, making instrumental case the sole possibility. In clauses with dative objects (43d), both dative and instrumental cases can appear on predicative elements.

Timberlake (1988: 187) concludes that 'the complexity of the distribution of agreeing case [i.e. the same case as the controller] and instrumental suggests that both cases should be

available in principle in all constructions, with the details of preference to be sorted out by the rules of interpretation.' Timberlake suggests that instrumental and agreeing case offer different semantics: instrumental case is linked to attributive usage and change of state interpretation, while agreeing case denotes a pure property. The speaker chooses between the two depending on the situation.

Next to 'agreeing' and instrumental cases, Timberlake (1988: 193) reports a third possibility: dative case is available in certain control clauses. Predicative elements of infinitival complements selected by V+N sequences (or control into N-complements using Franks and Hornstein 1992 terminology). This is exemplified in (44):

(44) Moterys apgina savo *teisę* nebūti
women.F.PL.NOM defend.PRST.3 self.GEN right.F.SG.ACC NEG.be.INF
suskirstomoms į ištekėjusias ir netekėjusias.
divided.PPT.F.PL.DAT into married.F.PL.ACC and NEG.married.F.PL.ACC
'Women defend their right not to be divided into married and unmarried.'

Predicative participle *suskirstomoms* 'divided' is dative case marked as opposed to instrumental or nominative case. Timberlake suggest that dative in these types of clauses is obligatory and is treated by Timberlake as 'discrepancy' in an otherwise agreeing-instrumental case system. To account for this curious property of infinitival clauses selected by V+N, Timberlake proposes a distinct rule that is responsible for assigning dative case in clauses like (44).

While Timberlake established a pattern of case-marking phenomena in Lithuanian control clauses, the original study contains some unresolved and unexplained issues. His theoretical account cannot straightforwardly account (i) why is accusative case unavailable on predicate elements in (43c) if the 'agreeing case' and instrumental case is theoretically possible in all clauses?; (ii) why does the 'semantic richness' of the main predicate affect the availability of instrumental case (compare 43a to b)?

Timberlake does not adhere to a PRO-analysis of control (since his analysis is couched in a different framework), however, if we translate his insights into a PRO-based analysis of control, then we would seem to predict that in Lithuanian control clauses:

1. PRO *always* bears the same case as its controller.

2. Predicative elements can either bear the same case as PRO or an instrumental case, depending on 'interpretational rules', or exhaustivity vs. accidental property, stative vs. change of state semantics.
3. Predicative elements in certain control constructions can bear dative case (though from the data and analysis presented in Timberlake we cannot predict whether this dative case is also borne by PRO or if it is restricted to predicative elements as instrumental case is.)

Despite the fact that Timberlake's paper contains some issues (especially if translated into a PRO-based analysis), the generalisations have been adapted to a PRO-based analysis and cited by a number of scholars. The generalisations have been taken at face value, e.g. Przepiórkowski and Rosen (2005) suggest that the fact that PRO cannot bear accusative case of in Lithuanian and regard it as a language-specific property.

Given the fact that there are some unanswered questions and that some empirical generalisations made in his work are unclear, the aim of this thesis is to:

1. Determine the case born by PRO in subject and object control clauses.
2. Determine the distribution of instrumental case in control clauses.

4. Aim of the study and methodology

The aim of this section is two-fold: firstly, this section will delimit the scope of the present study, and secondly, it will explain the design of a questionnaire as well as the methodology underlying data collection.

4.1. The scope of the study

This thesis concerns itself only with exhaustive subject and object-oriented control verbs taking infinitival complements. Predicative elements in the infinitival complements can bear different case marking on predicative elements (as was discussed in 3.3). Examining the case alternation in detail will allow us to determine the syntax of control clauses:

1. Case marking on PRO
2. Case marking on predicative elements

15 control verbs were selected for this study, they are presented in TABLE 2:

Table 2. EXHAUSTIVE OBLIGATORY CONTROL VERBS TAKING INFINITIVAL COMPLEMENTS

Subject control	Object control
norėti 'to want', *pažadėti* 'to promise', *nuspręsti* 'to decide' , *prisiekti* 'to swear' , *neturėti teisės* 'not to have a right to', *sutikti* 'to agree', *atsisakyti* 'to refuse', *paprašyti leidimo* 'to ask for permission'	*GENITIVE: paprašyti* 'to ask', *pareikalauti* 'to demand.' *ACCUSATIVE: priversti +ACC* 'to force', *versti +ACC* 'to force', *įkalbėti +ACC* 'to convince.' *DATIVE: patarti +DAT* 'to advise', *liepti +DAT* 'to order', *leisti +DAT* 'to allow.'

All subject control verbs presented on the left-hand side take subjects in nominative case. Object control verbs presented on the right-hand side are further broken down according to the case borne by their respective objects. Object control verbs with different case-assigning properties were included since Timberlake (1988) suggested that verbs exhibit different kind of behaviour with respect to case marking on predicate elements (recall that Timberlake suggested that predicative elements never bear accusative case).

These control verbs were used in the following types of clauses; the part of a sentence that we are interested in, as it ought to show case concord with PRO, is underlined:

(45) Control configurations tested:

a) Simple subject control:
John$_i$ wants PRO$_i$ to be kind.

b) Subject control over a matrix object (the object is italicized):
John$_i$ promised *his mother* PRO$_i$ to be kind

c) Subject control into infinitival complements of NPs (or V+N sequences; italicized)
John$_i$ *asked for permission* PRO$_i$ to be alone.

d) Object control:
John forced Mary$_i$ PRO$_i$ to come alone.

Various types of subject control configurations were tested as the environment may play a role on case available to PRO. This is exhibited in e.g. Comrie (1974), Landau (2008b) for Russian: for instance, subject control over a matrix object (45b) type of clauses allows both nominative and dative case marking on PRO as opposed to exclusively nominative case marking on PRO in simple subject control clauses (45c). Also recall, that Timberlake (1988) reported that *only* in clauses like (45d) exhibit dative case on predicative elements in Lithuanian.

The last point worth mentioning is that in this thesis various lexical categories are considered as predicative elements: emphatic pronoun *pats* 'self' and adjectival numerical *vienas* 'alone, one', adjectives, participles, and nouns. Timberlake (1988) only considered case marking on predicative adjectives and participles, I decided to include *pats* 'self' and *vienas* 'alone' and nouns.

The rationale behind adding emphatic pronoun *pats* 'self' and adjectival numerical *vienas* 'alone, one' is that that at least in Russian these two lexical items have a curious property of always agreeing with PRO via some case concord / case-agreement (e.g. Madariaga 2006, Landau 2008). These lexical items are thus are the best tools determining case on PRO in Russian, and I decided to include them as a separate category in the study of Lithuanian, since Lithuanian and Russian share similar properties with respect to case marking.

Nouns were added for a different reason. Recall that predicative elements can be instrumental case marked in Lithuanian; this case, however, is not borne by PRO – it is assigned to

predicative elements locally. Nouns have been reported to be instrumental case marked more often than adjectives (Holvoet 2005). The addition of nouns thus can shed some light on the locus of instrumental case.

In summary, I will analyse two issues in this thesis: (i) the case on PRO; and (ii) the distribution of instrumental case in control clauses. This will be achieved by examining predicative elements (*pats* 'self' *vienas* 'alone', adjectives, participles, nouns) in the infinitival clause that can reveal the case on PRO since predicative elements normally agree via case concord with a local DP (46a); alternatively, predicative elements can bear an independent instrumental case that is not borne by the DP that it is associated with (46b):

(46) a. Jonas yra protingas / mokytojas.
John.NOM be.PRST.3 clever.M.SG.NOM teacher.M.SG.NOM
'John is clever / a teacher.'

b. Jonas buvo mokytoju.
John.NOM be.PST.3 teacher.M.SG.INST
'John was a teacher.'

The hypothesis here thus is that (i) if a predicative element bears a non-instrumental case, then it reveals the case value of PRO; (ii) if a predicative element is instrumental case marked, then this instrumental case is a consequence of a different syntactic configuration that is present in these clauses, which affect only the case of the predicative element.

4.2. The questionnaire

The empirical part of this study was conducted via a multiple-choice questionnaire due to unavailability of Lithuanian native speakers in the Netherlands. The questionnaire was constructed using Google Forms, and was circulated via the Internet. The questionnaire was filled out by seventy-two speakers of Lithuanian. Five forms were not filled out in their entirety and consequently were excluded from analysis. The informants were mostly university students or university graduates residing in Vilnius aged 18-25. Due to a variability of hometowns, no sociolinguistic generalisations can be drawn from this set of data.

The questionnaire itself consisted of 33 sentences in total. The sentences were presented with a predicative element; below each sentence alternative forms of the predicative element were listed: an agreeing form and two non-agreeing forms (dative and instrumental, except for in

object control clauses with dative-case marked objects, where non-agreeing dative case and agreeing dative case coincide). The design of the questionnaire is exemplified below:

(47) Užaugęs aš noriu būti _____
grow.up.PPT.M.SG I.NOM want.PRST.1SG be.INF
- mokytojas
  teacher.M.SG.NOM
- mokytoju
  teacher.M.SG.INST
- mokytojui
  teacher.M.SG.DAT
- Other:

The sequence in which the answers appeared was randomised for each sentence. The informants were instructed to mark *all* forms they found acceptable, meaning that they could choose more than one. If none of the forms presented was acceptable to the informant, the informants also had an option of choosing *Other* and could provide a different answer. This possibility was made use of only once. Even though the informants were asked to mark all forms *they* found acceptable, it is a recurrent problem pertaining work on Lithuanian (and micro-parametric studies in general), that it is difficult to predict whether the informants provide their own grammaticality judgements or they are influenced by what is considered to be the norm (see e.g. Barbiers 2009) The fact that normativity was at play in this study was made clear when some of the informants after the completion of the questionnaire inquired about the *correct* answers (normativity will be brought up again in chapter 6).

5. Results

In this section, the results of the questionnaire are presented. Before we turn to results, I would like to point out that the answers revealed a great degree of inter-speaker as well as intra-speaker variation. This is not unexpected, since Landau (2008b) revealed a similar situation in Russian; where he regards this variation to be a 'true optionality at the level of formal grammar.' I will not adhere to this standpoint and I identify two main patterns that emerge from the data.

Recall from section 3.3, that if we translate Timberlake's (1988) generalisations into a PRO-analysis of control, we would expect that PRO to always bear the same case as its controller. This is not what we find our data. In fact, the grammaticality judgement split into two patterns with respect to case on PRO in object control clauses: one pattern requires PRO to bear the same case as its antecedent; the second one requires dative case marking on PRO in all object control clauses, irrespective of the case on the controller. For the purposes of this thesis, I will refer to these patterns as *Pattern A* and *Pattern B*. The two patterns are exemplified in (48a) and (b), respectively:

(48) a. Aš paprašiau Jono tai padaryti pačio.
I.NOM ask.PST.1SG John.SG.GEN PRO.GEN it do.INF self.M.SG.GEN
'I asked John to do it himself.'

b. Aš paprašiau Jono tai padaryti pačiam.
I.NOM ask.PST.1SG John.SG.GEN PRO.DAT it do.INF self.M.SG.DAT

The proportional distribution of Pattern A and Pattern B are presented in Table 3:

TABLE 3. PROPORTIONAL DISTRIBUTION OF PATTERN A AND PATTERN B

	Pattern A	Pattern B
AMOUNT OF SPEAKERS	53	14
PERCENTAGE	79%	21%

As you can see from Table 3, Pattern A is more common than Pattern B in this set of data.

The availability of dative case in control clauses interacts with the distribution of instrumental case in a very intriguing way. In the further sections, the results for Pattern A and Pattern B

will be presented separately and will be further broken down according to the control type and lexical category of a secondary predicate.

5.1. Pattern A

5.1.1. Subject control

In subject-oriented control constructions the most prevalent pattern is sameness of case between PRO and the antecedent, i.e. PRO is *always* nominative.

The fact that PRO always bears nominative case is best exhibited by the emphatic pronoun *pats* 'self' and numeric adjective *vienas* 'alone.' These lexical items are obligatorily nominative-case marked across all subject control configurations tested. Consider three sentences below, exemplifying all control configurations: simple subject control (49a); subject control over an overt matrix object (49b); subject control into infinitival complements of NPs (49c):

(49) a. Simple subject control:
Andrius prisiekė padaryti tai pats.
Andrew.SG.NOM swear.PST.3 PRO.NOM do.INF it self.M.SG.NOM
'Andrew promised to do it himself.'

b. Subject control over a matrix object:
Jonas pažadėjo draugams padaryti
John.SG.NOM promise.PST.3 friend.M.PL.DAT PRO.NOM do.INF
tai pats.
it self.M.SG.NOM
'John promised his friends to do it himself.'

c. Subject control into infinitival complements of NPs:
Pirmininkas neturi teisės
chairman.M.SG.NOM NEG.have.PRST.3 right.M.SG.GEN PRO.NOM
keisti įstat pats.
change.INF law. self.M.SG.NOM
'Chairman does not have a right to change the laws on his own.'

Examples in (49) indicate that *pats* 'self' obligatorily surfaces in nominative case – the same case as that of the matrix subject (*Andrius* 'Andrew', *Jonas* 'John' and *Pirmininkas* 'chairman,' respectively). The presence of an indirect object (49b) or an NP in the matrix clause (49c) does not have an effect on the case on the predicative element (and PRO).

Obligatoriness of nominative case on predicative elements persists in subject control constructions with adjectives and participles. Once again *all* subject control configurations investigated are equally transparent for case concord.

(50) a. Simple subject control constructions:
Tadas pažadėjo būti pasiruošęs.
Ted.SG.NOM promise.PST.3 PRO.NOM be.INF ready.M.SG.NOM
'Ted promised to be ready.'

b. Subject control over a matrix object:
Tadas pažadėjo mamai
Ted.SG.NOM promise.PST.3 mother.F.SG.DAT PRO.NOM
būti budrus.
be.INF alert.M.SG.NOM
'Ted promised his mother to be alert.'

c. Subject control into infinitival complements of NPs:
Agnė paprašė leidimo
Agnes.SG.NOM ask.PST.3 permission.M.SG.GEN PRO.NOM
atvykti į vakarėlį nepasipuošusi.
arrive.INF to party.M.SG.ACC not.dressed.up.PPT.F.SG.NOM
'Agnes asked for a permission to arrive to the party not dressed up.'

Similarly, we see that adjectives and participles surface in the nominative case that is also borne by the controller (*Tadas* 'Ted' and *Agnė* 'Agnes') in the matrix clause, irrespective of the grammatical configuration, i.e. irrespective of the presence of an indirect object or N-complement.

Interestingly, nouns exhibit a slightly different pattern: while PRO still bears nominative case as is evident from nominative case marking on a noun in (51a); nouns can also bear an instrumental case feature (51b). Compare the following two examples of simple subject control:

(51) a. Užaugęs aš noriu būti mokytojas.
grow.PPT.M.SG I.NOM want.PRST.1SG PRO.NOM be.INF teacher.M.SG.NO
'I want to be a teacher when I grow up.'

b. Užaugęs aš noriu tapti pilotu.
grow.PPT.M.SG I.NOM want.PRST.1SG PRO.NOM become.INF pilot.M.SG.
'I want to be a pilot when I grow up.'

The only relevant difference between clauses in (51a) and (b) is the infinitive: *būti* 'to be' in (51a) and *tapti* 'to become' in (51b). In constructions with the embedded verb *būti,* 'to be' the speakers accept agreeing nominative case just as they did with adjectives, participles and *pats* 'self' and *vienas* 'alone'. Yet, in sentences with a change-of-state verb (*tapti* 'to become'), the same speakers no longer accept agreeing nominative and list independent instrumental case as the sole grammatical option.

This contrast in agreement patterns of infinitives *būti* 'to be' and *tapti* 'to become' also surfaces in subject control configurations where an overt indirect object is present in the matrix clause:

(52) a. Vaikai pažadėjo policininkams
Children.M.PL.NOM promise.PST.3 policeman.M.PL.DAT PRO.NOM
būti pavyzdingi eismo dalyviai.
be.INF exemplary.M.PL.NOM traffic.M.SG.GEN participant.M.PL.NOM
'Children promised to policeman to be exemplary road users.'

b. Tadas pažadėjo mamai tapti
Ted.SG.NOM promise.PST.3 mother.F.SG.DAT PRO.NOM become.INF
Lietuvos prezidentu.
Lithuania.F.SG.GEN president.M.SG.INST
'Ted promised his mother to become the president of Lithuania.'

In (52a), *dalyviai* 'participants' appears in nominative case as does PRO and its controller *vaikai* 'children'. However, once the predicative noun is embedded under the infinitive *tapti* 'to become' (52b), nominative case of the controller and PRO becomes unavailable, and the noun in this context is assigned independent instrumental case.

To sum up, the generalisation is as follows: PRO always bears nominative case in subject-control clauses as do most predicative XPs. The only exception to this rule are predicative nouns embedded under infinitive *tapti* 'to become' that bear instrumental case marking.

5.1.2. Object control

Let us now turn to object control constructions. Once again, the best tool to determine the case on PRO is the emphatic pronoun *pats* 'self' and the numerical adjective *vienas* 'alone' and adjectives: they surface bearing the same case as the controller in the matrix clause:

(53) a. Tadas privertė Joną ateiti
Ted.SG.NOM force.PST.3 John.SG.ACC PRO.ACC come.INF
vieną.
alone.M.SG.ACC
'Ted forced John to come alone.'

b. Marius paprašė Linos ateiti
Marius.M.SG.NOM ask.PST.3 Lina.F.SG.GEN PRO.GEN come.INF
vienos.
alone.F.SG.GEN
'Marius asked Lina to come alone.'

In (53a), the controller, which is a direct object of the verb *priversti* 'to force,' surfaces with accusative case marking, as does the numerical adjective *vienas* 'alone'. In (53b), the controller is an indirect object that surfaces in genitive case as is lexically determined by the main verb; the predicative numerical adjective appears in the same genitive case.

Adjectives and participles exhibit the same behaviour: they are all marked with the same case as the controller:

(54) a. Tai mane vertė būti drąsų.
it I.ACC force.PS PRO.ACC be.INF brave.M.SG.ACC
'It forced me to be brave.'

b. Mama pareikalavo sūnaus būti
Mother.F.SG.NOM demand.PST.3 son.M.SG.GEN PRO.GEN be.INF
mandagesnio.
polite.M.SG.GEN
'Mother demanded her son to be more polite.'

The fact that *drąsus* 'brave' is necessarily accusative case marked contradicts the data presented in Timberlake (1988), who argued that predicative elements can never bear accusative case.

Let us now turn to nouns. Once again, they differ from other lexical categories with respect to their case marking in control constructions. Across all object control constructions, irrespective of the case of the controller or the type of the embedded infinitive, nouns obligatorily exhibit independent instrumental case:

(55) a. Pirmininkas paprašė manęs tapti
chair.M.SG.NOM ask.PST.3 I.GEN PRO.GEN become.INF
ambasadore.
ambassador.F.SG.INST
'The chair asked me to become an ambassador.'

b. Treneris paprašė manęs būti komandos
Coach.M.SG.NOM ask.PST.3 I.GEN PRO.GEN be.INF team.F.SG.GEN
žaidėju.
player.M.SG.INST
'The coach asked me to be a team player.'

c. Mama privertė mane tapti
mama.M.SG.NOM force.PST.3 I.ACC PRO.ACC become.INF
gydytoju.
doctor.M.SG.INST
'My mother forced me to become a doctor.'

d. Gyvenimas privertė mane būti teatro
life.M.SG.NOM force.PST.3 I.ACC PRO.ACC be.INF theatre.M.SG.GEN
vadovu.
manager.M.SG.INST
'Life forced me to be a theatre manager.'

Interestingly, the *būti* 'to be' – *tapti* 'to become' asymmetry, which was reported for subject control constructions with nouns in Pattern A, is not present in object control constructions. All nouns obligatorily surface marked with instrumental case.

In object-control constructions of *Pattern A,* PRO obligatory bears the same case as its controller. Once again, nouns differ from other lexical categories, this time by enforcing independent instrumental case across the board.

5.2. Pattern B

5.2.1. Subject control

In Pattern B, subject control construction PRO bears the same case specification as the matrix controller, like in Pattern A. This is especially clear when we consider clauses with predicative elements *pats* 'self' and *vienas* 'alone.' These lexical items across all subject control constructions, display the same case as the matrix controller, meaning that they always surface in nominative case (the examples in 53 are repeated in 56):

(56) a. Simple subject control:
Andrius prisiekė padaryti tai pats.
Andrew.SG.NOM swear.PST.3 PRO.NOM do.INF it self.M.SG.NOM
'Andrew promised to do it himself.'

b. Subject control over a matrix object:
Jonas pažadėjo draugams padaryti
John.SG.NOM promise.PST.3 friend.PL.DAT PRO.NOM do.INF
tai pats.
it self.M.SG.NOM
'John promised to his friends to do it himself.'

c. Subject control into N-complements:
Pirmininkas neturi teisės keisti
chairman.M.SG.NOM NEG-have.3 right.M.SG.GEN PRO.NOM change.INF
įstatymų pats.
law.M.PL.GEN. self.M.SG.NOM
'Chairman does not have a right to change the laws on his own.'

In simple subject control constructions there is however a *būti* 'to be' – *tapti* 'to become' split for case marking on adjectives/participles. Consider, for instance, three simple subject control constructions with different embedded infinitives:

(57) a. Tadas pažadėjo būti pasiruošęs.
Ted.SG.NOM promise.PST.3 PRO.NOM be.INF ready.M.SG.NOM
'Ted promised to be ready.'

b. Aš sutikau ateiti pasipuošęs.
I.NOM agree.PST.3 PRO.NOM come.INF dressed.up.M.SG.NOM
'I agreed to come dressed up.'

c. Marius nusprendė tapti išmintingesniu.
Marius.M.SG.NOM decide.PST.3 PRO.NOM become.INF wise.M.SG.INST
'Marius decided to become wiser.'

In (57a) and (b), the underlined predicative elements surface in the nominative case of the controller and PRO. Once embedded under a verb of change of state *tapti* 'to become' (57c), adjectives and participles are necessarily marked with instrumental case.

There are two patterns with respect to instrumental case marking that emerge in other subject control configurations: for some speakers, instrumental case is only available under infinitive *tapti* 'to become' (58a and b) while others prefer instrumental case marking across the board (56b and c):

(58) a. Tadas pažadėjo mamai būti
Ted.SG.NOM promise.PST.3 mother.F.SG.DAT PRO.NOM be.INF
budrus.
alert.M.SG.NOM
'Ted promised his mother to be alert.'

b. Vadovė pažadėjo pavaldiniams
manager.F.SG.NOM promise.PST.3 subordinate.M.PL.DAT PRO.NOM
tapti dėmesingesne.
become.INF attentive.F.SG.INST
'The manager promised her subordinates to become more attentive.'

c. Tadas pažadėjo mamai būti
Ted.SG.NOM promise.PST.3 mother.F.SG.DAT PRO.NOM be.INF
budriu.
alert.M.SG.INST
'Ted promised his mother to be alert.'

Now turning to nouns, we see that they behave in a uniform fashion: nouns display instrumental case across all subject-control configurations, irrespective of the presence of change of state semantics in the embedded infinitive:

(59) a. Užaugęs aš noriu būti mokytoju.
grow.PPT.M.SG I.NOM want.PRST.1SG PRO.NOM be.INF teacher.M.SG.INST
'I want to be a teacher when I grow up.'

b. Užaugęs aš noriu tapti pilotu.
grow.PPT.M.SG I.NOM want.PRST.1SG PRO.NOM become.INF pilot.M.SG.INST
I want to be a teacher when I grow up.'

In (59a) and (b), predicative nouns are marked with instrumental case irrespective of the embedded infinitive.

The lexical category of the predicative element influences the choice between nominative and instrumental: adjectives appear in instrumental case only if embedded under *tapti* 'to become'; predicative nouns are obligatorily instrumental case marked.

5.2.2. Object control

In object control constructions (Pattern B), PRO bears dative case across the board. Once again, *pats* 'self' and *vienas* 'alone' *always* surface in (independent) dative case irrespective of the case of the controller or the embedded verb, instrumental case is ruled out by all informants:

(60) a. Tadas privertė Joną ateiti
Ted.SG.NOM force.PST.3 John.SG.ACC PRO.DAT come.INF
vienam.
alone.M.SG.DAT
'Ted forced John to come alone.'

b. Marius paprašė Linos ateiti
Marius.M.SG.NOM ask.PST.3 Lina.F.SG.GEN PRO.DAT come.INF
vienai.
alone.F.SG.DAT
'Marius asked Lina to come alone.'

In (60a) and (b), controllers are in accusative and genitive case, respectively, yet *vienas* 'alone' surfaces marked with dative case in both clauses. Object control clauses with dative-case marked controllers are excluded from the discussion, as it is impossible to determine whether the dative case borne by the predicative element is the dative case of the controller or a locally assigned dative case – the morphological realisation of both types of dative case is the same and thus indistinguishable. Consequently, no claim will be made with respect to the nature of dative case.

When we turn to adjectives and participles, we find that the prevalent case is instrumental across all clauses, though dative case is by no means ruled out (e.g. (61):

(61) a. Tai mane vertė būti drąsiu.
it I.ACC force.PST.3 PRO.DAT be.INF brave.M.SG.INST
'It forced me to be brave.'

b. Mama pareikalavo sūnaus būti
mother.F.SG.NOM demand.PST.3 son.M.SG.GEN PRO.DAT be.INF
mandagesniu / mandagesniam.
polite.M.SG.INST / DAT
'Mother demanded her son to be more polite.'

Lastly, nouns once again behave in a uniform fashion: the only acceptable case being instrumental:

(62) a. Mama privertė mane tapti
mother.F.SG.NOM force.PST.3 I.ACC PRO.DAT become.INF
gydytoju.
doctor.M.SG.INST
'My mother forced me to become a doctor.'

b. Mama patarė Agnei tapti
mother.F.SG.NOM advise.PST.3 Agnes.SG.DAT PRO.DAT become
studente.
student.F.SG.INST
'Mother advised Agnes to become a student.'

To sum up, the prevalent choice in Pattern B object control is independent case: the predicative elements always surface in independent dative case, while adjectives and nouns prefer instrumental case.

5.3. Summary of the results

In previous subsections, the results of the study were presented. In this section, I summarise compare the two patterns.

Firstly, concerning the case on PRO in control clauses, we see that Lithuanian exhibits two strategies (i) PRO always bears the case of the controller (Pattern A); (ii) PRO bears the case of the controller in subject control clauses but independently motivated dative case in object control clauses (Pattern B). The tendencies are summarised in Table 4:

TABLE 4. CASE ON PRO

Type of control	Pattern A	Pattern B
All subject control configurations	Always NOM	Always NOM
Accusative object control Genitive object control	ACC / GEN	Always DAT

The presence of dative case interacts with the distribution of instrumental case, see Table 5:

TABLE 5. DISTRIBUTION OF INSTRUMENTAL CASE IN BE/BECOME CONSTRUCTIONS

Type of control	Lexical category	Pattern A	Pattern B
Subject control	Adjective Participle	Always NOM	NOM if *būti* 'to be' INST if *tapti* 'to become'
	Noun	NOM if *būti* 'to be'; INST if *tapti* 'to become'	Always INST
Object control	Adjective Participle	ACC / GEN	ACC object: Always INST
			GEN object: INST or DAT
	Noun	Always INST	Always INST

In Pattern A, instrumental case is limited to nouns, while in Pattern B instrumental case is available for adjectives and participles. Interestingly both Pattern A and Pattern B exhibit a *būti* 'to be' *and tapti* 'to become' asymmetry *only* in subject control constructions, though the locus of this asymmetry is different. In Pattern A, the asymmetry manifests itself in constructions with nouns, while in Pattern B it is present in adjectives and participles.

As you can see, the distributional patterns presented in this thesis are different from generalisations made by Timberlake (1988) that were presented in (3.3). Firstly, the use of dative case is not linked to certain subject control configurations (subject control into infinitival complements NPs). In fact, this dative case is exclusively used with object control clauses (and only in one pattern). Furthermore, Timberlake argued that instrumental case is always available with adjectives and participles. The picture, however, is far more complex: the availability of instrumental differs depending on the lexical category of the predicative XP as well as the infinitive.

This empirical study thus has provided a wide array of new insights and generalisations. The aim and the challenge of this thesis consequently is to account for two different control patterns, with the main focus points being:

(i) The case on PRO;

(ii) The distribution and locus of instrumental case.

6. Analysis

In this chapter, I will offer an analysis of case-marking phenomena in Lithuanian obligatory control clauses. I will first address case on PRO in subject (6.1) and object (6.2) control clauses. Recall, that in this thesis I will adopt and adapt Landau's approach to control suggesting that control is established via an AGREE relation between a relevant functional head in the matrix clause (T/*v*) and PRO (Landau 2000, 2006, 2008; see section 2.4 for an introduction). In section 3.2, it was argued that infinitival complements are minimally *v*Ps, which means that the AGREE relation between T/v and PRO is always direct, i.e. there is no phonetically null complementizer in C that may mediate this relation (as is argued by Landau). In section 6.2.2, I will suggest that the dative case marking on PRO in Lithuanian is a morphological realization of modal head ($Mod_{root}P$).

In section 6.3, I will address the nature of instrumental case which is restricted to predicative elements (i.e. it is not borne by PRO). I will suggest that there is a link between instrumental case and inner aspect.

6.1.Subject control

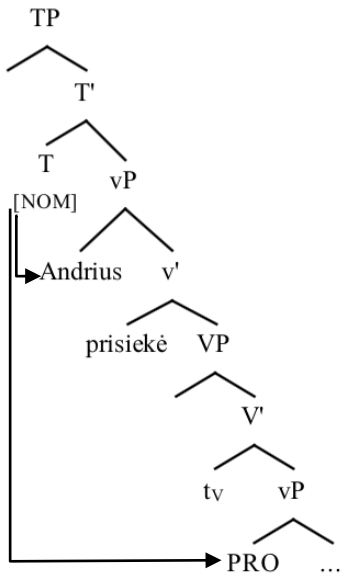
In this section, I will discuss the case on PRO in subject control constructions of Pattern A and Pattern B. Recall that the two Patterns display in the same behaviour with respect to case assignment on PRO (see section 5.3 for a summary): PRO always bears the same case as its controller. In the following subsections, I will address the three different configurations of subject control clauses investigated in this thesis and offer a theoretical account based on the idea that control is established via an AGREE between the relevant functional head (T/*v*) and PRO.

6.1.1. Simple subject control

In simple subject control clauses, the implementation of the idea that PRO receives its case from a direct AGREE relation with T is pretty straightforward. Consider example in (63) and its proposed derivation in (64):

(63) Andrius prisiekė padaryti tai pats.
Andrew.SG.NOM promise.PST.3 PRO.NOM do.INF it self.M.SG.NOM
'Andrew promised to do it himself.'

(64)



T first establishes an AGREE relation with the subject (*Andrius* 'Andrew') of the main clause whereby it checks its own φ-features and assigns nominative case the subject. Afterwards, T searches its c-command domain for another potential goal and establishes a second AGREE relation assigning nominative case and evaluating φ-features on PRO. Recall that the subject of the main clause does not block an AGREE relation between T and PRO due to The Principle of Minimal Compliance, which is repeated in (65):

(65) *Principle of Minimal Compliance* (Richards 2001: 199)
If the tree contains a dependency headed by H, which obeys constraint C, any syntactic object G which H immediately c-commands can be ignored for purposes of determining whether C is obeyed by other dependencies.

The Principle of Minimal Compliance, enables T to probe successively, by allowing it to ignore the goal of a previous AGREE relation, i.e. the controller:

(66) … [$_{T'}$ T John wants [$_{vP}$ PRO to come alone.]
1 2

6.1.2. Subject control over an intervening indirect object

Before we discuss the particulars of AGREE relation between T and PRO, let us discuss the syntactic nature of the object in the matrix clause: the nature of its syntactic case and where it is merged.

6.1.2.1. Indirect objects in Lithuanian

First evidence suggesting that indirect objects are merged in a distinct projection comes from case conflicts: in case conflicts, a non-structural case wins against a structural one (see Woolford 2006, or 2.1 for a general discussion of different case types). Now recall that direct objects are normally marked with a structural accusative case (67a). When the same verb is negated, then the structural accusative case on the direct object *obuolys* 'apple' is overridden by another structural case, namely, the genitive of negation (67b):

(67) a. Aš valgau obuolį.
I.NOM eat.PRST.1.SG apple.M.SG.ACC
'I am eating an apple.'
b. Aš nevalgau obuolio.
I.NOM NEG.eat.PRST.1.SG apple.M.SG.GEN
'I am not eating an apple.'

This shows that in case-conflicts, the highest structural case wins. Now if we turn to indirect objects, which Lithuanian marks with dative case (67a, *Agnė* 'Agnes'), we see that the dative case of an indirect object cannot not overridden by the genitive of negation:

(68) a. Jonas padavė Agnei obuolį.
John.SG.NOM give.PST.3 Agnes.SG.DAT apple.M.SG.ACC
'John gave Agnes an apple.'
b. Jonas nepadavė Agnei / *Agnės obuolio.
John.SG.NOM NEG.pass.PST.3 Agnes.SG.DAT / GEN apple.M.SG.GEN
'John didn't give Agnes an apple.'

If the dative case of an indirect object is not overridden in the presence of negation (as opposed to the structural accusative case of an direct object), then it suggests that this dative case is non-structural. Furthermore, the dative case here is predictable as it surfaces on indirect objects, meaning that it is theta-related. I thus conclude that it is an inherent case.

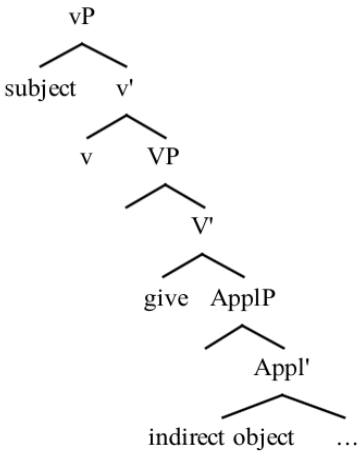
Following Marantz (1993), Pylkkänen (2001), Cuervo (2003), among others, I will assume that indirect objects are licensed by an Applicative Projection (*ApplP*), which introduces indirect objects semantically as well as syntactically. This $Appl^0$ is endowed with an inherent dative case feature. According to Pylkkänen (2001, 2008), there are two types of ApplP: a high *ApplP* (merged between vP and VP) and a low *ApplP* (merged under VP), each one representing different semantic relations. A high *ApplP* 'relates an individual to the event

described by the VP' (Pylkkänen 2008: 12), consider the following example from Kichaga, a Bantu language (Bresnan and Moshi 1990: 148):

(69) N-ä-ï-lyí-í-à m-kà k-élyá.
FOC-1SG-PRES-eat-APPL-FV 1-wife 7-food
'He is eating food for the benefit of/to the detriment of his wife.'

In (69), an individual, *wife,* is related to an event of someone eating and not the food itself, i.e. she is a Benefactor of an event. Compare it to Lithuanian clauses with indirect objects like the ones in (68). In those clauses, the indirect object is a Recipient of a direct object; e.g. Agnė is given an apple by John. A transfer of possession is implied in such clauses. Pylkkänen (2008: 11) suggests that in clauses like (68), where transfer of possession is implied, the indirect object is merged in the specifier of a low applicative:

(70)



Now that we established the position of an indirect object in Lithuanian, we can move to discussing the syntax of subject control clauses with an indirect object in the matrix clause.

6.1.3. Subject control over an intervening indirect object

Now let us move on to a an analysis of subject control clauses with an an additional argument in the matrix clause:

(71) DP_{subj} > DP_{iob} > PRO
Jonas$_i$ pažadėjo *draugams* padaryti
John.SG.NOM promise.PST.3 friend.M.PL.DAT PRO.NOM do.INF
tai pats.
it self.M.SG.NOM
'John promised to his friends to do it himself.'

The subject DP and PRO bear the same φ-features as well as the case value. Since there is no separate nominative case assigner in the embedded infinitive, we can assume that PRO receives case as well as its φ-features in the same way as it does in simple subject control constructions. However, the presence of an indirect object in (71) should automatically prevent any AGREE operation from taking place between the matrix functional head T and PRO as the indirect object would be an inactive goal. The definition of the defective intervention constraint is repeated below:

(72) *The Defective Intervention Constraint*
α < β < γ
(*AGREE (α, γ), α is a probe and β is a matching goal, and β is inactive due to a prior AGREE with some other probe.)

The indirect object receives its dative case before T is merged, and consequently before T can establish an AGREE relation with PRO, which would make the indirect object of the matrix clause an defective intervener:

(73) $[_{TP}NP_{Subj} \ldots [_{ApplP}NP_{inOb} \ldots [_{vP}PRO \ldots]$
*case

The data, however, clearly shows that AGREE relation between T and PRO does take place: PRO obligatorily bears the same case value as its controller both in Pattern A and Pattern B. The question is why the indirect object does not count as an intervener.

Landau (2008b) suggests one possible solution to this issue when discussing control patterns in Russian. In Russian subject control across a matrix object clauses, PRO (optionally) bears nominative case (alternatively it is dative case marked). Landau suggests resolving this issue of defective intervention by once again invoking the Principle of Minimal Compliance:

(74) *Principle of Minimal Compliance* (Richards 2001: 199)
If the tree contains a dependency headed by H, which obeys constraint C, any syntactic object G which H immediately c-commands can be ignored for purposes of determining whether C is obeyed by other dependencies.

Landau argues that once a well formed AGREE relation is formed (the one with the controller NP), then the second AGREE relation can be ill-formed, as illustrated in (75):

(75) … $[_{T'}$ T 2 John promised $[_{Appl'}$ Mary 1 $[_{vP}$ PRO to come alone.]
*3

There are, however, two issues with this argument. Firstly, if we follow Richards' definition of the Principle of Minimal compliance (74), then we would expect T to only be able to ignore the goal of its first AGREE relation. *Mary* in (75), however, does not receive dative case as a consequence of an AGREE relation with T but receives its case from *ApplP*. It is thus unclear to me on which grounds *Mary* can be ignored for the purposes of an AGREE relation between T and PRO.

Furthermore, such wide application of the Principle of Minimal Compliance would necessarily over-generate and make the notion of defective intervention redundant, as it would seem that any number of intervening DPs could be ignored as long as there is one well-formed dependency.

I thus suggest a different solution to the issue at hand: I propose that indirect objects of *promise*-type verbs are late-merged (in Stepanov's 2001 sense). A similar approach is advocated by Ussery (2012), who argues for late-merge of indirect object with *promise*-verbs in Icelandic; though, PRO in these configurations in Icelandic does not bear the same case as the controller.

Let us compare the indirect object of *promise*-type verbs and indirect objects of *give*-type verbs in Lithuanian:

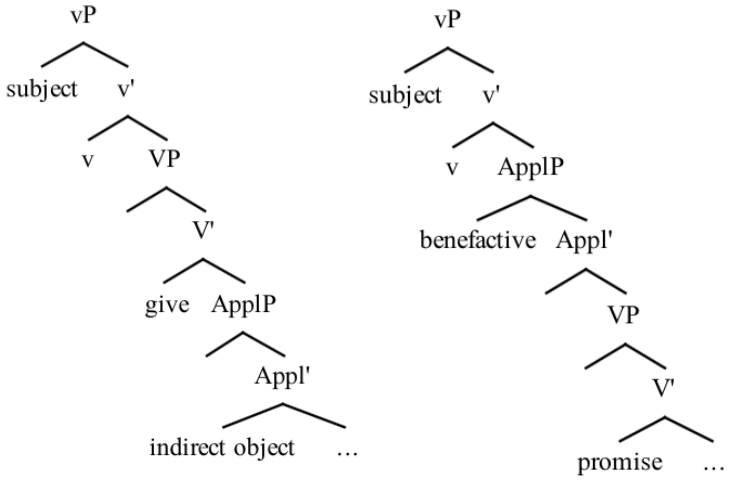
(76) a. Jonas pažadėjo *Agnei* ateiti vienas.
John.SG.NOM promise.PST.3 Agnes.SG.DAT come.INF alone.M.SG.NOM
'John promised Agnes to come alone.'

b. Jonas padavė *Agnei* obuolį.
John.SG.NOM give.PST.3 Agnes.SG.DAT apple.M.SG.ACC
'John gave Agnes an apple.'

In both (76a) and (b), the indirect object (*Agnė* 'Agnes') is marked with dative case. Recall, that we analysed indirect objects as in (76b) to be merged in a low applicative phrase because they mark relations between two elements (Pylkkänen 2001; also see section 6.1.2.1), in other words, there is a transfer of possession. If we consider the semantics of (76a), however, we see that the semantics of this sentence is quite different: *Agnė* 'Agnes' is not a Recipient of something, but rather she benefits from an activity encoded in with the infinitival clause. I

thus suggest that there is a benefactive relation between *John coming alone* and *Agnes*, which would suggest the indirect object of (76b) is merged in the specifier of a high applicative in Pylkkänen's (2008) sense.

(77) a. b.



I will not take a stand as to whether Lithuanian has a distinct projection for Benefactives as more research is necessary. However, I will suggest that Benefactives in Lithuanian are late-merged (or at the very least the indirect objects of *promise*-type verbs) as opposed to cyclic merge of a Recipient argument in (77a). If we assume that Benefactives are late-merged in Lithuanian, then it would essentially mean that we consider the indirect objects of *promise*-type verbs to be adjuncts and not real arguments. One indication that it may, in fact, be the case is that Benefactives can be easily omitted (78b), whereas omission of a Recipient indirect object (i.e. a true argument) results in the ungrammaticality of the sentence (78a):

(78) a. Aš pažadėjau *(Jonui) dviratį.
I.NOM promise.PST.1SG John.SG.DAT bike.M.SG.ACC
'I promised John a bike.'

b. Aš pažadėjau (Jonui) ateiti anksti.
I.NOM promise.PST.1SG John.SG.DAT come.INF early
'I promised John to come early.'

The non-obligatory status of indirect objects of *promise*-type verbs makes them adjuncts. Adjuncts have been suggested to be merged non-cyclically before (see Stepanov 2001, and references therein). I will adopt this idea of non-cyclic merge developed in Stepanov (2001)

and apply to it Benefactives in Lithuanian. Now let us compare a cyclic and a non-cyclic merge of indirect objects of *promise*-type verbs step by step:

(79) ***Cyclic merge***

a. The embedded clause is merged
[$_{vP}$ PRO come]

b. The matrix verb is merged
[$_{V}$ promise [$_{vP}$ PRO come]

c. The Benefactive is merged
[$_{ApplP}$ John [$_{v}$ promise][$_{vP}$ PRO come]

d. The matrix subject is merged
[$_{vP}$ I [$_{ApplP}$ John [$_{v}$ promise][$_{vP}$ PRO come]

(80) ***Non-cyclic merge:***

a. The embedded clause is merged
[$_{vP}$ PRO come]

b. The matrix verb is merged
[$_{V}$ promise [$_{vP}$ PRO come]

c. The matrix subject is merged
[$_{vP}$ I [$_{v}$ promise][$_{vP}$ PRO come]

d. The Benefactive is merged
[$_{vP}$ [I] [$_{vP}$ [$_{ApplP}$ John]] [$_{v}$ promise][$_{vP}$ PRO come]

The only difference between (79) and (80) is the timing of when the *ApplP* is merged. In cyclic merge (79), an indirect object is merged before the subject of the main verb (step c). In non-cyclic merge (80), a high applicative is merged as an adjunct to *v*P only once the whole sentence is combined. Crucially, this means that at the time when T searches its c-command for a potential goal, the indirect object has not yet been merged, and consequently cannot intervene for the purposes of an AGREE relation being established between T and PRO. PRO thus always bears φ-features of its controller and nominative case. This means that clauses like (81) essentially have the same derivation as simple subject control clauses discussed in section 6.1.1.

(81) Jonas pažadėjo *draugams* padaryti
John.SG.NOM promise.PST.3 friend.M.PL.DAT PRO.NOM do.INF
tai pats.
it self.M.SG.NOM
'Jonas promised to his friends to do it himself.'

6.1.4. Subject control into infinitival complements of NPs

Now let us turn to the final configuration of subject control clauses examined in this thesis: subject control into the infinitival complements of NPs, exemplified in (82):

(82) Pirmininkas neturi teisės keisti
chair.M.SG.NOM NEG.have.PRST.3 right.F.SG.GEN PRO.NOM change.INF
įstatymų pats.
law.M.PL. self.M.SG.NOM
'The chair has no right to change laws on his own.'

(Ne)turėti teisės 'to have no right' takes an infinitival clause as its complement. Once again we see an NP (in this case, *teisės* 'right.GEN') which is at least linearly located between the probe T and goal PRO and consequently should block an AGREE relation between the two:

(83) $NP_{subj} > NP_{dO} > PRO$

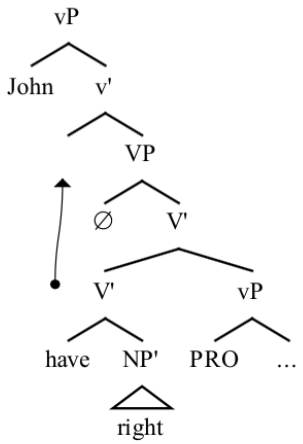
… [$_{T'}$ T John doesn't have right [$_{vP}$ PRO to change laws.]
2 1 *3

Teisė 'right' receives case from the negated finite verb before T is merged, which should make it an inactive intervener. This is, however, not the case. We saw in (82), *pirmininkas* 'chair' and *pats* 'self' have the same case value and φ-features. We cannot argue that it is late merged, because it is a direct object of the matrix verb and it is absolutely essential for the correct interpretation of that finite verb.

I propose that *turėti teisę* ' have a right' and *paprašyti leidimo* 'to ask for permission' are complex predicates consisting of a light verb and a noun. Jespersen (1965: 117) was the first to suggest that V+N sequences in English like *have a rest* and *give a sigh* are complex predicates. The intuition behind this idea is that both V and N contribute to the meaning of this sequence. The meaning of the V+N mostly depends on the action / event denoted by the nominal (Butt 2010) and the light verb mainly acts as a licenser for the NPs and bears tense specification; though unlike auxiliaries these verbs are not fully devoid of meaning: e.g. *take a bath* vs. *give a bath*. A similar assumption is made by Franks and Hornstein (1992), who discuss (optional) nominative case on PRO in infinitival complements of NPs in Russian. Franks and Hornstein do not discuss the specifics of the derivation of such clauses. The syntactic make up of V+N type complex predicates is under-discussed in minimalist syntax

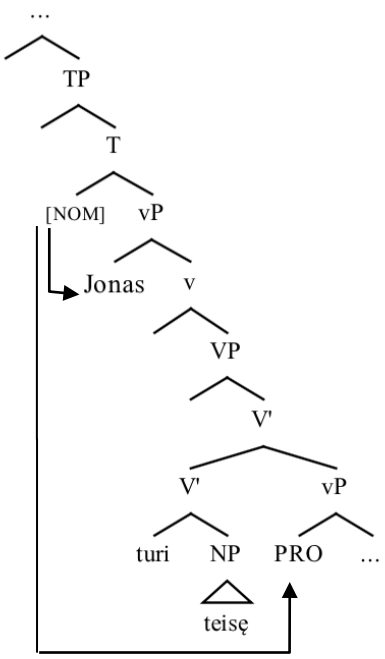
(e.g. Keyser and Hale 2002), however, for the present purposes I will assume the following derivation:

(84)



To capture the fact that the lexical meaning of the complex predicate depends on the non-verbal element (here a noun) as well as the semantically bleached verb, I suggest that the verb and the noun are merged together in parallel to the infinitival complement. Once the verb and the noun are merged together and form a complex predicate, then this whole complex then takes the infinitival clause as its complement. Consequently, I suggest that the NP *right* 'right' is too deeply embedded in the structure to act as an intervener for the AGREE relation between the matrix TP and PRO.

(85)



This assumption, of course, is not without its share of complications; for instance, what does 'too deeply embedded' exactly entail. Also, does the verb *turėti* 'to have' assign a theta role to the external argument or whether it is a whole complex predicate, or whether the noun has some theta-role assigning properties. Does the lexicalisation level of a complex predicate play a role in case assigning properties to PRO. I do not have answers to these questions yet – a larger set of complex predicates taking infinitival complements ought to be studied first.

There is however, an indication that lexicalisation of the complex predicate may have an effect on case marking of PRO. For instance, *turėti teisę* 'to have no right' when it takes infinitival complements behaves as a fixed expression, i.e. the noun *teisė* 'right' is always bare, it cannot be modified by determiners:

(86) Kiekvienas turi (*savo) teisę
Everyone.M.SG.NOM have.PRST.3 self.GEN right.F.SG.ACC PRO.NOM
ginti savo įsitikinimus.
defend.INF self.GEN belief.M.PL.ACC
'Everyone has a right to defend their beliefs.'

PRO was judged to be the sole grammatical option by all 67 informants. The second complex predicate investigated in this thesis, *paprašyti leidimo* 'to ask for permission,' on the other hand, can be modified by a possessive noun marked with genitive case (*tiekėjo* 'supplier') as well as a possessive pronoun (*jų* 'their'):

(87) Jonas paprašė jų / tiekėjo
John.NOM.SG ask.PST.3 they.M.GEN / supplier.M.SG.GEN
leidimo apžiūrėti prekę.
permission.M.SG.GEN examine.INF product.F.SG.ACC
'John asked for their / supplier's permission to examine the product.'

The fact that the noun of the V+N sequence can be modified by a possessive noun in genitive case as well as a determiner indicates that this particular predicate (*paprašyti leidimo* 'to ask for permission') does not yet reach a full status of a complex verb. Interestingly, this seems to have consequences for case marking on PRO. PRO in the infinitival complements of *paprašyti leidimo* 'to ask for permission,' exhibits some variation with respect to case marking: 12 informants (out of 67) preferred dative case on PRO over nominative in the following clause:

(88) Jonas$_i$ paprašė leidimo
John.SG.NOM ask.PST.3 permission.M.SG.GEN PRO$_i$
ateiti vienas / vienam.
come.INF alone.M.SG.NOM / DAT
'Jonas asked for a permission to come alone.'

It is surprising that the case that surfaces on the predicative element here is dative, a case we have not encountered in subject control clauses, indicating that it is an independently motivated case. I will address this issue of dative case on PRO in the infinitival complements of *paprašyti leidimo* 'to ask for permission' in section 6.2.2, while discussing the fact that PRO is always dative case marked in object control clauses of Pattern B.

In summary, in this chapter I have argued that (i) in subject control constructions, T establishes a direct AGREE relation with PRO resulting in nominative case marking on PRO; (ii) indirect objects of *promise*-type verbs are high applicatives that are late merged and consequently are not subject to the defective intervention constraint; (iii) V+N sequences taking infinitival complements are complex predicates.

6.2. Object control clauses

In this section, I will offer an analysis of case marking on PRO in object control clauses. Since Pattern A and Pattern B exhibit different case on PRO, the two patterns will be discussed separately. In Pattern A, PRO is marked with the same case as its controller, in Pattern B PRO always bears dative case irrespective of the case borne by its controller. I will first address the syntax of control in Pattern A (6.2.1), I will then turn to Pattern B (6.2.2). In section 6.2.2, I will argue that the presence of dative case in object control constructions of Pattern B stems from the presence of an extra head (Mod_{root}) encoding deontic modality. This projection is absent in Pattern A, resulting in PRO and the controller bearing the same case marking.

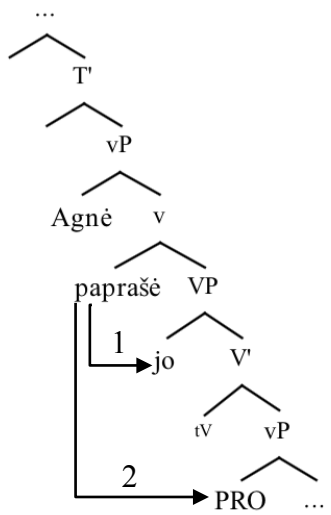
6.2.1. Pattern A

In Pattern A, PRO always bears the same case as its controller in object control clauses (as it does in subject control clauses; section 6.1):

(89) Agnė prašė jo ateiti vieno.
Agnes.SG.NOM ask.PST.3 he.SG.GEN PRO.M.SG.GEN come.INF alone.M.SG.GEN
'Agnes asked him to come alone.'

Since PRO bears the same case as its controller, I suggest that PRO receives its case from a direct relation with the relevant higher functional head, which in case at hand is *v*. The probe *v* first establishes an AGREE RELATION with the local DP (in the case at hand, it is a third person pronoun) and assigns lexical genitive case. Subsequently, it establishes another AGREE relation, this time with PRO valuating its case and φ-features. The controller DP does not block an AGREE relation between *v* and PRO because of the Principle of Minimal Compliance (Richards 2001: 199, see 74 for definition):

(90)



6.2.2. Dative case on PRO (Pattern B)

In this section, I will discuss case on PRO in object control clauses of Pattern B. Recall that in this Pattern, PRO is always marked with a dative, case irrespective of the case borne by its controller. I thus believe that there is an additional projection in the structure of the infinitival complement, which is responsible for dative case on PRO and which is absent from Pattern A. In the following subsections, I will consider all instances of dative case marked subject-like NPs in Lithuanian and try to determine the source of dative case on PRO in object control clauses.

6.2.2.1. Dative subjects in Lithuanian

In this section, I will introduce various configurations licensing dative subject-like NPs, and determine the source of dative case in these constructions.

In Lithuanian, subjects of finite clauses are normally nominative and the finite verb shows agreement for person and number with the subject NP:

(91) a. Aš skaitau knygą.
I.NOM read.PRST.1SG book.M.SG.ACC
'I am reading a book.'

b. Jonas numirė.
John.SG.NOM die.PST.3
'John died.'

In the examples above, the subjects in (91) appear in nominative case and the finite verbs are morphologically inflected for first person singular and third person, respectively. While subjects are usually marked with nominative case, there are some instances when subject-like DPs surface marked with dative case. Consider the following examples below with dative subject-like DPs; they appear in the following configurations: with (i) psych verbs, (ii) non-agreeing (or neuter gender) adjectives[3], (iii) impersonal reflexive verbs, (iv) impersonal modals, and (v) infinitives:

(92) a. Tu man patinki.
You.NOM me.DAT like.PRST.2SG
'I like you.'

b. Man sunku nesijuokti.
I.DAT difficult.N NEG.REFL.laugh.INF
'It's difficult for me not to laugh.'

c. Man norisi valgyti.
I.DAT want.PRST.REFL.IMPERS eat.INF
'I want to eat.'

d. Man reikia eiti.
I.DAT need.IMPERS.PRST go.INF
'I need to go.'

e. Ką man daryti?
what.ACC I.DAT do.INF
'What should I do?'

[3] Neuter adjectives cannot modify nouns they are used to denote a generalised quality / feature (Ambrazas et al. 1997: 169):
Šiandien šalta.
Today cold.N
'It is cold today.'

The examples in (92) all exhibit that dative NPs that though do look like subjects, they do not enter into an agreement relation with verbs, i.e. all verbs appear in a non-inflected form (infinitive 92e), inflected for third person irrespective of the person and number features of the dative NP (impersonal, 92b, c, d) or agree with the logical object of the clause (psych verbs, 92a). Lets us now take a closer look at these types of dative NPs and determine the origin of the dative case.

Firstly, (92a) is a canonical example of an Experiencer argument. The *subjects* in these constructions are often referred as Experiencers to capture the lack of agentivity on the part of the logical subject. This theta-role of an Experiencer in many Indo-European languages is associated with dative case. Consider the following examples (all clauses presented in 93 translate as 'I like you'):

(93)	a.	German:	Du	gefällst	mir.
			You.DAT	like.PRST.2SG	I.DAT
			'I like you.'		
	b.	Russian	Ty	mne	nravish'sja.
			You.NOM	I.DAT	like.PRST.2SG
	c.	Italian	Tu	mi	piaci.
			You.NOM	I.DAT	like.PRST.2SG
	d.	Spanish	Tu	me	gustas.
			You.NOM	I.DAT	like.PRST.2SG

German, Russian, Italian, and Spanish pattern with Lithuanian in these constructions: the logical subject of the clause is marked with the dative case, while the theme (*You*) appears in nominative case and the predicate agrees in its φ-features with the logical object.

The question now is what assigns dative case to the experiencer arguments. Cuervo (2003) argues, on the basis of Spanish, that Experiencer subjects are introduced by an Applicative Phrase (*ApplP*), which licenses Experiencers semantically as well as syntactically and also licenses dative case.

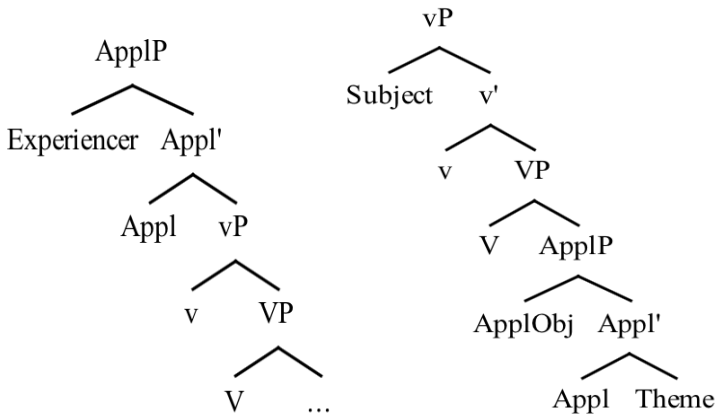
Now let consider Experiencer arguments in Lithuanian. Recall that genitive of negation can override a structural case of a direct object but not an indirect one, and it was suggested that it is because the dative case of an indirect object is inherent (see section 6.1.2.1 for discussion). Now let us consider Experiencer arguments:

(94) a. Agnei patinka katės.
Agne.F.SG.DAT like.PRST.3 cat.F.PL.NOM
'Agne likes cats.'

b. *Agnės / Agnei nepatinka katės.
Agne.F.SG.GEN Agne.F.SG.DAT NEG.like.PRST.3 cat.F.PL.NOM
'Agne doesn't like cats.'

As you can see from clauses (94), the presence of negation does not affect neither the Experiencer argument (*Agnės)* nor the logical object (*katės* 'cats'). Since the dative case of an Experiencer argument cannot be overridden (and is theta-related), I will follow Cuervo (2003) and Richardson (2007), who extended Cuervo's proposal to Experiencer arguments in Slavic languages, and assume that Lithuanian Experiencer subjects are licensed within an applicative phrase:

(95) a. Experiencer b. Indirect object



As you can see by comparing (95a) and (b), the position of the *ApplP* differs depending on whether it licenses an Experiencer argument or an indirect object.

Now that we have established that Experiencer arguments in Lithuanian receive dative case from *ApplP*, let us consider other dative case marked subject-like NPs in Lithuanian. The remaining structures with dative subject-like NPs are repeated below:

(96) a. Man sunku nesijuokti.
I.DAT difficult.N NEG.REFL.laugh.INF
'It's difficult for me not to laugh.'

b. Man norisi valgyti.
I.DAT want.REFL eat.INF
'I want to eat.'

c. Man reikia eiti.
I.DAT need.IMPERS go.INF
'I need to go.'
d. Ką man daryti?
what.ACC I.DAT do.INF
'What should I do?'

Man 'I' in (96b) is traditionally seen as an experiencer argument (e.g. Piccini 2008): the person who is finding it difficult not to laugh, and can be analysed just as the clauses before, i.e. with making reference to a high applicative head (95a).

Now let us turn our attention to reflexive verbs, exemplified in (97):

(97) a. Jonui šiandien nesirašo.
John.SG.DAT today NEG.REFL.write.IMPERS.PRST
'John can't write today / John doesn't feel like writing today.'
b. Jonas šiandien nerašo.
John.SG.NOM today NEG.write.IMPERS.PRST.3
'John is not writing today.'

The presence of the reflexive clitic *–si* on the impersonal verb derives an involuntary reading: the interpretation of (97b) is that *John* made a conscious decision not to write today, while (97a) indicates that there is some force that keeps *John* from writing, even if he is trying to write, his efforts are futile. The presence of this reflexive marker deems *John* to be an Experiencer rather than an agent.

The nature of dative NPs in other two types of clauses (ones with impersonal modals and infinitives) is a bit more murky and under-discussed. I will argue that clauses with impersonal modals and infinitives share the same modal semantics, and thus should be analysed in the same way. Compare the following clauses:

(98) a. Kur man eiti?
Where I.DAT go.INF
'Where should I go?'
b. Kur man reikia eiti?
Where I.DAT need.PRST.IMPER go.INF
'Where should I go?'

(98a) and (b) present clauses that can be used interchangeably – they enforce the same nuance of modal necessity, even though an overt modal is only present in (98). The question now is where does (98a) get its modal semantics from? Schoorlemmer (1993), Kondrashova (1994), and Kim (2010), posit a phonetically null modal in Russian clauses equivalent to Lithuanian examples in (99a):

(99) a. Mne nado idti.
I.DAT need.IMPERS.PRST go.INF
'What should I do?'
b. Kuda mne $ø_{modal}$ idti.
where.to I.DAT go.INF
'Where should I go?'

In the next subsection, I will examine the syntax of modals.

6.2.2.2. Event modality

There are two major types of modality: epistemic and non-epistemic, event modality, (which can be further broken down into deontic and dynamic, but it is trivial for our purposes):

(100) a. John may be in the office.
b. John may / can come in now.

Epistemic modality conveys 'the status of the proposition in terms of the speaker's commitment to it' (Palmer 1986: 54–55). The modal force of (100) indicates that the speaker does not wholeheartedly believe that *John* is in the office, i.e. the speaker acknowledges that he / she has a low degree of commitment to the uttered proposition. Event modality, on the other hand, is often defined in terms of permission and obligation that is imposed on the *subject* of the clause by some participant-external (deontic) or participant-internal (dynamic) force (Kratzer 1978: 111).

Now if we turn to Lithuanian, we see that Lithuanian has many ways of conveying various nuances of modality: modal particles (*tikriausiai* 'most likely', *galbūt* 'perhaps'), modal verbs (*galėti* 'to be able to'), and impersonal modals (reikėti 'to need'; for an overview of modality in Lithuanian see e.g. Holvoet 2009). Crucially, impersonal modals like *reikia* 'to have /

need', *galima* 'can', *tenka* 'to have' convey only non-epistemic modality. These impersonal modals thus impose a certain set of obligations, requirements on the subject of the clause.[4]

While the picture is complex, I argue that clauses like (100) receive their modal semantics from a distinct projection that I will refer to as $Mod_{root,}$, following Cinque (1998). The presence of this modal projection enforces obligation / permission semantics. Following Cinque's (1998) hierarchy, I suggest that Mod_{root} is located between the TP and *v*P:

(101) Cinque's (1998: 55) Hierarchy (irrelevant projections were omitted)
T… Mod_{root} … Asp … vP …

The support for this claim stems from the restrictions on word order: e.g. the copula *būti* 'to be', which carries tense information, is ungrammatical after the modal:

(102)	Tau	nebuvo	galima	(*nebuvo)	šerti	šuns.
	You.DAT	NEG.be.PST.3	can.IMP	NEG.be.PST.3	feed.INF	dog.GEN
	'You were not allowed to feed the dog.'					

Syntactic structure of deontic modals has been debated for a long time now: some scholars argue that clauses with deontic modals are control structures (e.g. Ross 1969, Zubizarreta 1982, Roberts 1985), others that modals are raising verbs (Wurmbrand 1999, among others). The structures corresponding to the two opposing views of deontic modals are presented in

[4] However, talking about a class of impersonal modals in Lithuanian is problematic, since different modals seem to be in different stages of grammaticalization, compare clauses with modals *galima* 'to be allowed' and reikia 'to have / need' in past tense:

(1) a.

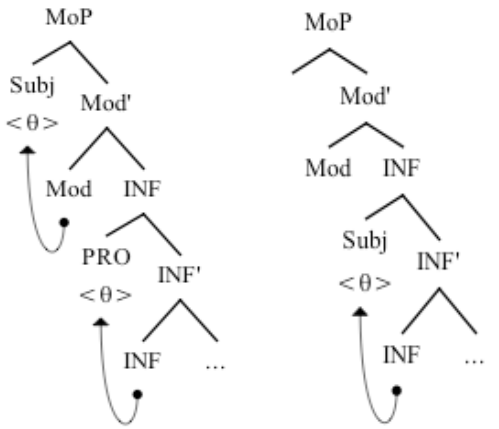
Tau	nebuvo	galima	šerti	šuns.
You.DAT	NEG.be.PST.3	can.IMP	feed.INF	dog.GEN
'You were not allowed to feed the dog.'				

b.

Tau	nereikėjo	šerti	šuns.
You.DAT	NEG.need.PST.3	feed.INF	dog.GEN
'You didn't have to feed the dog.'			

Galima 'to be able to' has to combine with an auxiliary *būti* 'to be' to be able to convey tense, while *reikėti* 'to have / need' can be inflected for all tenses. In Old Lithuanian, however, *reikia* had the same structure as *galima,* i.e. it required a tensed auxiliary *būti* 'to be' (Holvoet 2009: 201).

(103) a. Control b. Raising



The main difference between (103a) and (b) lies in the modal's ability to assign a separate theta role. If modals have a theta role of their own, then they are control structures, if they do not then they are raising structures on par with verbs like *seem.* In the following subsection, I will try to determine whether deontic modals in Lithuanian should be analysed as raising verbs or control verbs.

6.2.2.3. Impersonal modals

In this section, I will apply some diagnostics tests used in the literature to disambiguate raising verbs from control verbs.

Firstly, Schoorlermmer (1993), Wurmbrand (2001, 2004) argue that if a verb exhibits any selectional restrictions on its subject, then it is a control verb with its own theta role. If however, it can appear with expletive subjects as well as inanimate subjects freely, then it is a raising verb. Wurmbrand (2004: 996) shows that in German modals as well as raising verbs like *seem* are compatible with both expletive and inanimate subjects, while control verbs e.g. *versuchen* 'to try' are not:

(104) a. Es scheint zu scheien.
it seem.PRST.3SG to snow.INF
'It seems to snow.'

b. Es muss morgen scheien.
it must.PRST.3SG tomorrow snow.INF
'It must snow tomorrow [otherwise the race will be cancelled].

c. *Es versuchte zu scheien.
It try.PST.3SG to snow.INF
'*It tried to rain.'

d. Der Kuchen scheint gegessen worden
the.M.SG.NOM cake.M.SG seem.PRST.3SG eat.PPT AUX.PASS
zu sein.
to be.INF
'The cake seems to have been eaten.'

e. Der Kuchen muss gegessen werden.
the.M.SG.NOM cake.M.SG must.PRST.3SG eat.PPT AUX.PASS
'The cake must be eaten.'

f. Der Kuchen versuchte gegessen zu werden.
the.M.SG.NOM cake.M.SG try.PST.3SG eat.PPT to AUX.PASS
'*The cake tried to be eaten.'

Now let us consider Lithuanian impersonal deontic modals with respect to ability to appear with subjects. It should be noted that Lithuanian, being a pro-drop language, does not have overt expletives:

(105) a. (Lietus) lyja.
rain.M.SG.NOM rain.PRST.3
'It is raining.'

b. *Dėl manęs rytoj reikia lyti lietui.
because I.GEN tomorrow need.IMPERS rain.INF rain.M.SG.DAT
'As far as I'm concerned, it may rain tomorrow.' (Holvoet 2009: 220)

c. *Reikia lyti rytoj.
need.IMPERS.PRST rain.INF tomorrow
'It must rain tomorrow [otherwise the race will be cancelled].

d. *Knygai reikia būti perskaitytai.
book.F.SG.DAT need.IMPERS.PRST be.INF read.PPT.F.SG.DAT
'The book needs to be read.'

In Lithuanian, weather verbs can either stand without an overt subject or in some cases they appear with a cognate subject (105a). The same cognate subject is ungrammatical in a clause if a deontic impersonal modal is present (105b), neither is a null expletive subject (105c). Following Wumrbrand's argumentation then we should argue that the impersonal modal *reikia* 'to need' has its own theta role to assign and thus is a control verb.

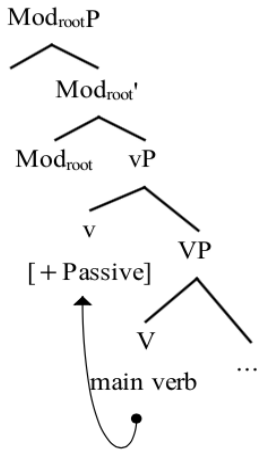
Another diagnostic test employed to distinguish between raising and non-raising verbs is the verb's ability to passivise: passive of a particular verb is only possible if that verb projects an external argument (e.g. Wurmbrand 2004: 994). Interestingly, impersonal deontic modals cannot be passivized:

(106) a. Jonui reikia apgauti Tadą.
John.M.SG.DAT need.IMPERS deceive.INF Tadas.M.SG.ACC
'Jonas has to deceive Tadas.'

b. Tadui reikia būti apgautam Jono.
Tadas.M.SG.DAT need.IMPERS be.INF deceive.PPT.M.SG.DAT John.M.SG.GEN
'Tadas had to be deceived by Jonas.'

As exemplified in (106a), when we passivize a clause containing impersonal modal, then it is not the modal which is passivized, instead the infinitive bears passive morphology (it becomes a participle) and is headed by an auxiliary *būti* 'to be'. This suggests that the modal has no external theta role to assign and that it appears in the following structure:

(107)



The two pieces of evidence examined here seem to be conflicting: on the one hand, impersonal deontic modals have some selectional restrictions they enforce on potential subjects, and at the same time they cannot be passivized. I suggest that the seeming selectional restrictions on subjects is an idiosyncratic property of *impersonal* deontic modals. Inanimate subjects are, in fact, possible with deontic modals that can be inflected for all persons and number (108):

(108) a. Tu privalai eiti namo.
You.NOM must.PRST.2SG go.INF home.
'You have to go home'

b. Ši knyga privalo būti grąžinta.
this.F.SG.NOM book.F.SG.NOM must.PRST.3 be.INF return.PPT.F.SG.NOM
'This book must be returned.'

Now since impersonal deontic modals cannot be passivized, I suggest that the infinitive is the main predicate of the clause. In other words, I suggest that deontic modals are essentially raising verbs without an external argument of its own (in line with Wurmbrand 2001), and the main predicate of the clause is the infinitival verb. A similar position is taken up by e.g. Schoorlemeer (1993), Kondrashova (1994), Richardson (2007), among others, who argue that dative case marked DPs of clauses with impersonal modals are true subjects and not Experiencers, i.e. these DPs are base-generated in spec,*v*P of the infinitive as all external arguments.

The last remaining issue that we have to address is the locus of dative case with impersonal modals, since I argued that dative case marked DPs are external arguments of the infinitive and not e.g. an experiencer argument of the modal. Jakab (2001), Kondrashova (1994), Schoorlemmer (1993), Kim (2010) propose that a dedicated ModP is responsible for assigning dative case to external arguments of infinitival vPs in Russian clauses with impersonal modals. In the similar fashion, I suggest that dative case is a feature on Mod_{root} that manifests *only* with impersonal deontic modals. Compare the two clauses below: one with an impersonal deontic modal (109a) and another with deontic modals that have a full-fletched number and person paradigms (109b):

(109) a. Man reikia eiti.
I.DAT need.IMPERS.PRST go.INF
'I have to go.'

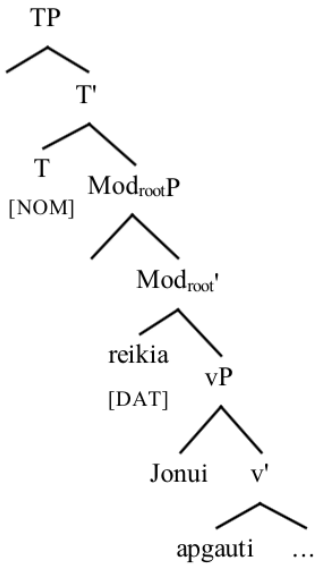
b. Aš turiu / privalau eiti.
I.DAT have.PRST.1SG must.PRST.1SG go.INF
'I have to / must go.'

In (109b), modals *turėti* 'to have' and *privalėti* 'must, to be obliged' display agreement with the nominative subject *aš* 'I,' while impersonal modals require subject-like DPs to be dative case marker.

Since dative case marking is restricted to impersonal modals, I suggest thus that clauses with like (110) have the following syntactic structure (111):

(110) Jonui reikia apgauti Tadą.
John.SG.DAT need.PRST.IMPERS deceive.INF Tadas.M.SG.ACC
'John has to deceive Tadas.'

(111)



In this construction, the external argument of the infinitival verb (*Jonas* 'John') checks its case against Mod_{root} since it is merged before T. The assignment of dative case to a local DP is not a by-product of AGREE, since the dative case on Mod_{root} is non-structural (because it is not overridden by structural nominative case). Structural nominative case thus remains unassigned, Babby (1986, 1987) on the basis of Russian argues that it is a property of a structural case – it is not obligatory. This analysis of impersonal deontic modals extends to phonetically null modals in dative + infinitive constructions with the same modal interpretation.

Now that we have established the syntax of modals and the locus of dative case, let us turn to dative case on PRO in object control clauses of Pattern B.

6.2.2.4. Modality and object control in Pattern B

The idea that object control verbs often display the semantics of obligation is, of course, not novel (see, for instance, Vázquez-Laslop 2000, Culicover and Jackendoff 2006[5], Kim 2010, among others). Consider the following examples:

(112)	a.	Aš	įsakiau	Jonui	ateiti	vienam.
		I.NOM	order.PST.1SG	Jonas.M.SG.DAT	come.INF	alone.M.SG.DAT
		'I ordered John to come alone.'				

[5] Culicover and Jackendoff (2006) argue that not all object control verbs exhibit obligation semantics and also that some subject control verbs can encode obligation.

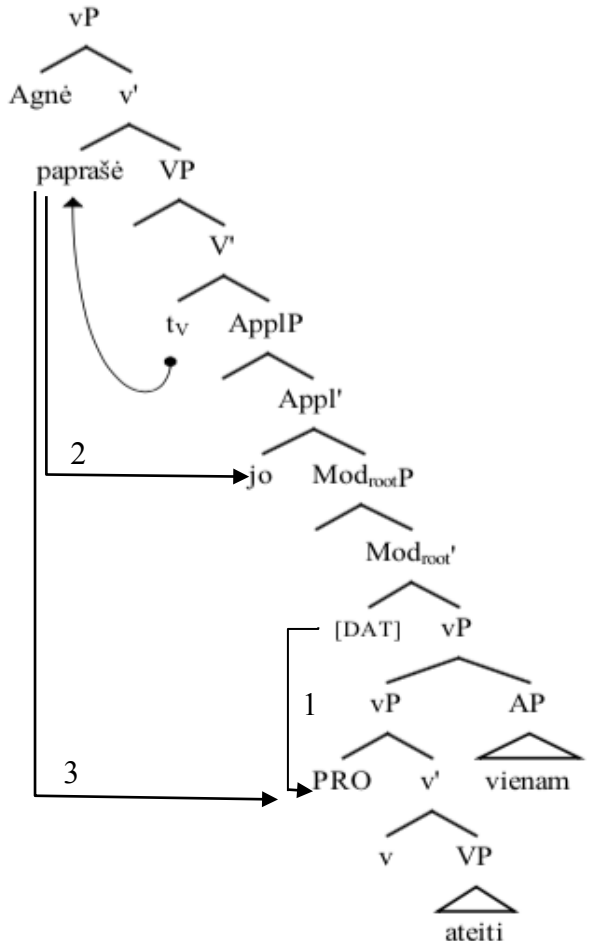
b. Aš paprašiau Jono ateiti vienam.
I.NOM ask.PST.1SG Jonas.M.SG.GEN come.INF alone.M.SG.DAT
'I asked John to come alone.'

In both clauses, the semantics of the finite verb is related to demands or requests being imposed on some person. The person under the obligation (*the controller*) and the person performing the action depicted by the infinitival verb are the same.

Since object control verbs express obligations that enforced onto a person, we can hypothesise that these control verbs can select infinitival complements headed by a phonetically null deontic modal. That would result in the obligation modality being encoded twice: once in the *semantics* of the verb itself (i.e. the meaning of the verb presupposes an amount of demand or request) and as well as in the syntactic structure of the infinitival complement. In other words, object control verb select an infinitival complement headed by $Mod_{root}P$ (which was introduced in section 6.2.2.3). This intuition is also expressed in Kim (2010), who argues that *some* object control verbs in Russian select infinitives with $Mod_{root}P$ and others without. In our data, however, PRO bears dative case marking with all object control verbs that were considered in this thesis. I consequently assume that in Pattern B, Mod_{root} is necessarily present with all object control verbs. We then can account for the dative case marking on PRO quite straightforwardly. The derivation of an object control clause (113) is provided in (114):

(113) Agnė paprašė jo PRO.DAT ateiti vienam.
Agnė.F.SG.NOM ask.PST.3 he.GEN come.INF alone.M.SG.DAT
'Agnė asked him to come alone.'

(114)



In this derivation, PRO is merged as an external argument in the spec,*v*P of the infinitive. Before *v* of the matrix verb is merged and can probe its c-command domain down to PRO, PRO is assigned case by a closer head, namely $Mod_{root.}$ Recall that it was suggested in section 6.2.2.3 that dative case of Mod_{root} is non-structural since it cannot be overridden by a higher structural case. Given that the dative case is non-structural, it is assigned independently of φ-features, meaning that PRO bears dative case and unvalued φ-features. Now when *v* is merged, it first enters into an AGREE relation with the controller (the matrix object), whereby it values its own φ-features. Subsequently, *v* enters into a different AGREE relation with PRO in order to implement control, whereby it values the remaining features on PRO (φ-features).

In the scenario, I assume that *v* can establish an AGREE relation with PRO without valuating its case. The assumption that structural case valuation and φ-feature valuation can be divorced is non-standard. However, this position is taken by e.g. Landau (2008b). Crucially, *v* has entered into a standard AGREE relation with the controller DP assigning structural case and valuating φ-features. The nature of an AGREE relation with PRO is slightly different, since *v*

already has it φ-features valued; it probes its c-command domain in order to establish control. A more radical position is taken, for instance, by Ussery (2012), who argues, on the basis of case-marking on predicative elements in Icelandic that case and φ-feature valuation can be a result of two distinct processes motivated by two distinct probes.

In summary, the difference between Pattern A and Pattern B in object control clauses can be captured by making reference to Mod_{root}, a projection that is responsible for encoding deontic modality *syntactically* and assigning non-structural dative case to PRO. This projection is present in Pattern B object control clauses but absent from Pattern A. This means that modality is not encoded *syntactically* in Pattern A, though it is inherent to the meaning of the control verb itself. The derivations of object control clauses are presented in (115):

(115) a. Agnė [$_{vP}$ paprašė jo [$_{Modroot}$ PRO.DAT ateiti vienam] *(Pattern B)*

Agnė.F.SG.NOM ask.PST.3 he.SG.GEN come.INF alone.M.SG.DAT

'Agnė asked him to come alone.'

b. Agnė [$_{vP}$ paprašė jo [$_{vP}$ PRO.GEN ateiti vieno] *(Pattern A)*

Agnė.F.SG.NOM ask.PST.3 he.SG.GEN come.INF alone.M.SG.GEN

In (115a), PRO receives a non-structural dative case feature from Mod_{root}, and its φ-features from the AGREE relation with the functional head *v* in the matrix clause. PRO in (115b) gets its φ-features as well as case value from an AGREE relation with finite *v*P.

6.2.2.5. Dative PRO in subject control clauses

Now recall that we have left one issue in section 6.1.4 unresolved: namely, the dative case on PRO in infinitival complements of complex predicates:

(116) Jonas paprašė leidimo
Jonas.M.SG.NOM ask.PST.3 permission.M.SG.GEN PRO.DAT
ateiti vienam.
come.INF alone.M.SG.DAT
'Jonas asked for a permission to come alone.'

It is quite surprising that PRO is dative case marked since in no other subject control configuration dative case is accepted. Furthermore, *paprašyti leidimo* 'to ask for permission'

turns out to be the only complex verb that allows dative case on PRO in our data.

In section 6.2.2.4, we tied dative case on PRO to the presence of Mod_{root} in object control clauses of Pattern B. Mod_{root} was argued to encode obligation semantics syntactically. Interestingly enough, *paprašyti* 'to ask' on its own is an object control verb with intrinsic modal semantics and selects an infinitival complement headed by Mod_{root}. The addition of *leidimas* 'permission' creates a control shift, i.e. it makes the object control verb to establish a subject-oriented control relation:

(117) a. Jonas paprašė jos PRO.DAT ateiti vienai.
John.SG.NOM ask.PST.3 she.GEN come.INF alone.F.SG.DAT
'John asked her to come alone.'

b. Jonas paprašė leidimo PRO.DAT ateiti vienam.
John.SG.NOM ask.PST.3 permission.M.SG.GEN come.INF alone.M.SG.DAT
'John asked for permission to come alone.'

I thus suggest that the speakers who accept dative case on PRO in (117a), also allow dative case marked PRO in (117b). The requirement of the object control verb *paprašyti* 'to ask' to take infinitival complements headed by $Mod_{root}P$ is transfered to *paprašyti leidimo* 'to ask for permission.'

6.3. Instrumental case

In this section, I will address the source of instrumental case on post-copular adjectives and nouns in Pattern A and Pattern B. Recall, that we hypothesised that instrumental case is not borne by PRO itself, but is restricted to post-copular elements. Instrumental case has been argued to be linked to the semantics of exhaustivity and change of state (Timberlake 1988, see 3.3). Given that instrumental case in our data showed sensitivity to change of state semantics (the *būti* 'to be' and *tapti* 'to become' alternation), I will argue that aspect plays a role in determining case on predicative elements (i.e. post-copular adjectives and nouns).

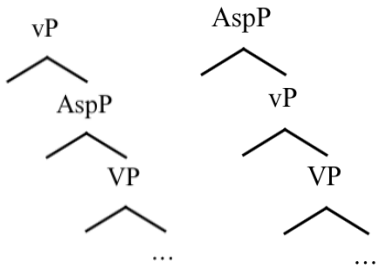
The structure of this section is as follows: first, I will introduce the theoretical background pertaining to aspect upon which the analysis is built on. Then I will argue that instrumental case on post-copular nominals is a morphological realisation of aspect. Finally, I will address

the differences with respect to the distribution of instrumental case between Pattern A and Pattern B.

6.3.1. Aspect

Aspect in linguistics is used to refer to two major notions: inner aspect (or *Aktionsart*) and outer aspect. Inner aspect refers to telic properties of the verb itself (Vendler 1957), while outer aspect depends on the speaker's perspective in reference to time, e.g. perfective-imperfective dichotomy. In simplistic terms, the difference between the two aspects can be represented in the following way:

(118) a. b.



While (118a) can be captured differently (without explicitly referring to aspect but with various flavours of little *v*), the crucial point here is that the temporal properties belong to the verbal complex itself. Outer aspect (118b), on the other hand, is encoded above the *v*P and can change depending on the speaker's viewpoint. In other words, 'inner aspect bounds an event, outer aspect bounds a time interval' (Zagona 2004: 650).

Vendler (1957) argued on the basis of English that verbs van be classified into four distinct categories that capture inherent temporal properties of verbs:

(119) Vendler's verb classification:

state:	John likes music.
activity	He is riding a bike.
accomplishment	John ate an apple
achievement	I realized my error.

The underlying assumption here is that verbs encode different temporalities. For instance, state verbs are unspecified duration and they do not have a natural endpoint. In a clause like '*John likes music'* no reference to eventuality is made. Accomplishment and achievement

verbs are telic, i.e. they have an endpoint. *John ate an apple* has both the duration (however long it takes to eat an apple) and an endpoint (the apple is eaten).

Now, Vendler's verb classification according to eventuality type has a rather controversial status in Slavic linguistics, since inner aspect interacts with outer aspect in many intriguing ways. For instance, one of the classical tests employed to determine telicity of verbs is using adverbs 'for X time' and 'in X time' Dowty (1979). According to Dowty (1979: 6), 'in X time' is felicitous with achievement verbs but not activity verbs. 'For X time, on the contrary, is grammatical with activity verbs but not telic achievement verbs. Consider for instance the following examples:

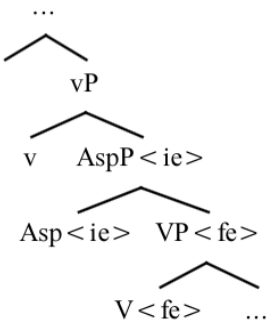
(120) a. John ate an apple in five minutes / ?? for five minutes.
b. John rode a bike *in five minutes / for an hour.

In Slavic, there are additional restrictions on the presence of adverbs. For instance, adverb 'in X time' is normally compatible with verbs in perfective aspect but not imperfective (Richardson 2007: 19). Some scholars thus proposed that in Russian (and the Slavic languages more generally) there is an interplay between (a)telicity and (im)perfectivity (e.g. Filip 2000).

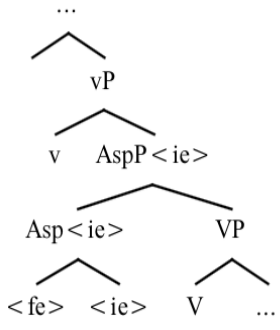
In this thesis, I will follow MacDonald (2008) and assume that accomplishment and achievement verbs have the following structure:

(121)

a. Accomplishment



b. Achievement



Notational labels <ie> and <fe> in (121) indicate the starting point and the ending point of an event, respectively. As you can see in accomplishment verbs (121a), *Asp* only encodes the

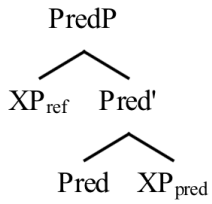
initial starting point, while in achievement verbs (121b), <ie> and <fe> appear on the same head as these verbs denote instantaneous events.

Now let us turn to two verbs discussed in this thesis that exhibit instrumental case – case concord dichotomy, namely *būti* 'to be' and *tapti* 'to become'. Both *būti* 'to be' and *tapti* 'to become' are normally argued to be copulas, i.e. they do not have an external theta role to assign or a structural case. Since neither *būti* 'to be' nor *tapti* 'to become' have theta-roles the predication in clauses like (122), the subject theta role has to be assigned by some other element:

(122) Jonas yra mokytojas.
John.SG.NOM be.PRST.3 teacher.M.SG.NOM
'John is a teacher.'

Following Bowers (1993), Svenonius (1994), Starke (1995), Baker (2003) and much other work, I assume that predicative relation between *Jonas* 'John' and *mokytojas* 'teacher' is mediated by a functional projection *PredicationP (PredP)*, which in Lithuanian has no overt realization. *PredP* takes two arguments: a predicative element and a referential one:

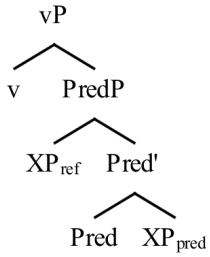
(123)



PredP mediates the predication relation between *Jonas* 'John' and *mokytojas* 'teacher' in (122) and assigns a theta-role to the referential subject. This *PredP* is headed by a copula in v^6:

[6] This *v* (also referred to as v_b), which introduces a copula to the structure, is a subtype of unacusative *v*, which takes only *PredP* and not VP as its complement (Mikkelsen 2005: 167).

(124)

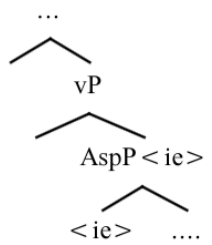


The copula *būti* ‘to be’ does not have any inherent temporal information, it is a state verb in the sense of Vendler (1957), the clauses with *būti* ‘to be’ thus appear in the structures like (124). *Tapti* ‘to become’, on the other hand, carries a certain change-of-state semantics. Like accomplishment verbs, it can appear with ‘in X time’ adverb:

(125) Kaip tapti verslininku per dvidešimt
How become.INF businessman.M.SG.INST in twenty
keturias valandas?
four.F.SG.ACC hour.F.SG.ACC
‘How to become a businessman in twenty four hours?’

The clause in (125) indicates that *tapti* ‘to become’ has a change of state semantics, duration, and a resultant state, which is expressed by a post-copular nominal. Thus, I will assume that *tapti* ‘to become’ on par with accomplishment verbs has inner aspect (*AspP*). The idea that copulas may have inner aspect is not unprecedented. For instance, Schmitt (2005) suggests that Portuguese copula *ficar* ‘to become’ is an aspectual counterpart of *be.* I consequently, assume that *tapti* ‘to become’ in Lithuanian has following inner structure:

(126)



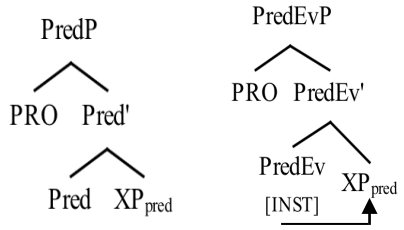
AspP in (126) encodes only the starting point of the event; the ending point or the resultant state is encoded by *PredP*. In summary, I assume that *tapti* ‘to become’ is an aspectual counterpart of *būti* ‘to be’ and that it has a richer inner structure. In the next section, I will address the distribution of instrumental case on predicative elements.

6.3.2. Instrumental case and event structure

Instrumental case and case concord opposition in copular constructions has been linked to change of state semantics in Lithuanian, as well as to temporary, accidental property vs inherent characteristics (Senn 1966, Timberlake 1988). Now the question is how this semantic distinction can be translated into a syntactic one.

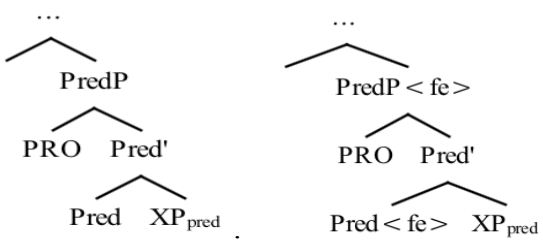
In Russian, there is also instrumental case-case concord alternation. Markman (2008), for instance, argued that case concord and instrumental case dichotomy can be captured in terms of event structure of *PredP*. Following Adger and Ramchand (2003), Markman (2008) assumes that there are two versions of predication phrase: a stative *PredP* (discussed in 6.3.1) and an eventive one (*PredEvP*). The former does not have any additional structure or case features (127a). *PredEvP*, on the other hand, carries eventive semantics, i.e. 'it introduces a spatio-temporal (event) argument *e* (Markman 2008: 196). This *PredEvP* carries instrumental case feature (127b). Compare the relevant parts of derivation of the two predication phrases:

(127) a. b.



I will adopt the idea that there are two types of *PredP* defended Adger and Ramchand (2003) and Markman (2008). I will, however, adapt it slightly. Markman suggests that *PredP* can either have rich inner aspect (127b) or not (a). I suggest modifying this assumption by suggesting that *PredP* can either encode a resultant state (in which case in bears <fe> feature in MacDonald's 2008 sense) or it can be a simple non-eventive *PredP* without any temporal specifications. Structural representations of the two types of *PredP* are presented below:

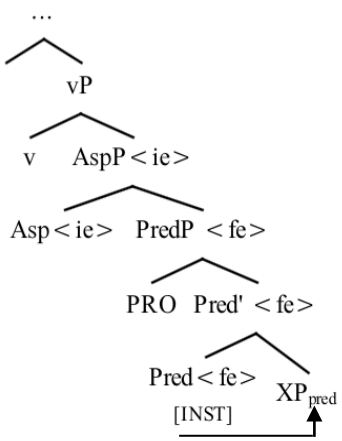
(128) a b.



I suggest that the choice between (128a) and (b) depends on the aspectual properties of the copula. Recall, that I suggested that *tapti* 'to become' is an aspectual copula that has projects

AspP (see ex. 126 and that this *AspP* encodes only the starting point of an event (since *tapti* 'to become' is an accomplishment verb). Consequently, I suggest that *tapti* 'to become' can only select a *PredP* that bears <fe> features, otherwise there would be no end-point to the event. In other words, I suggest that *PredP<fe>* has to be licensed by a higher aspectual head, which introduces the beginning / the starting point of an event. As a consequence of that, stative copula *būti* 'to be' always selects (128a), since it has no *AspP* licensing *PredP<fe>*.

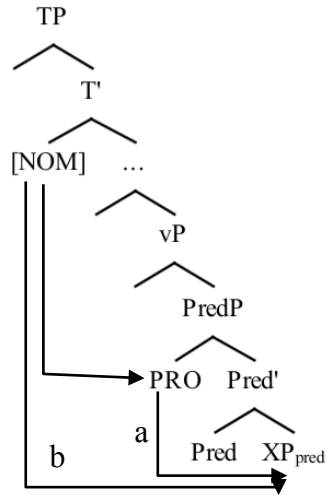
Since instrumental case is linked to change of state semantics, I suggest that the locus of instrumental case is *PredP<fe>* (similarly to Markman 2008, who argues it to be a feature on *PredEv*). I thus suggest the following derivation for clauses with change of state copulas:
(129)



We can thus quite straightforwardly account for the instrumental case marking in clauses with *tapti* 'to become.' PRO receives its case and φ-features from a relevant functional head via AGREE (for the discussion of case on PRO refer back to sections 6.1 and 6.2). Post-copular element (adjective, participle, noun) is assigned its case by *Pred<fe>*.

In clauses with no change-of-state copulas, *PredP* without any aspectual features is merged. This means that the stative copula *būti* 'to be,' which has no inner aspect, can only select *PredP* as its complement. This *PredP* does not bear any case feature (as opposed to *Pred<fe>*). The fact that *PredP* bears no case feature results in PRO and the post-copular element being marked with the same case. Consider for instance, a derivation of a subject control clause with a stative copula *būti* 'to be':

(130)



In simple predication clauses with no change of state semantics (130), the predicative XP receives its case (a) via some case-concord / co-indexation mechanism from PRO (e.g. Kwan 2010), (b) via Multiple Agree with the relevant functional head (Citko 2006, Markman 2008). While the exact syntactic mechanism behind case-agreement between referential XP and predicative XP in *PredP* is still subject to rigorous debate, the fact at hand is that when bare *PredP* is selected as opposed to *PredP<fe>,* instrumental case is unavailable and the predicative XP surfaces with the same case as PRO.

Now that we formalised the basic difference between predicational clauses headed by copulas *tapti* 'to become' and būti 'to be', let us turn to the intricate the distribution of instrumental case reported in this thesis.

6.3.3. Distribution of instrumental case

In this section, we will discuss the distribution of instrumental case on post-copular XPs in more detail. The distribution is summarised in Table 6:

TABLE 6. THE DISTRIBUTION OF INSTRUMENTAL CASE IN PATTERN A AND PATTERN B

Type of control	Lexical category	Pattern A	Pattern B
Subject control	Adjective Participle	Always NOM	NOM if *būti* 'to be' INST if *tapti* 'to become'
	Noun	NOM if *būti* 'to be'; INST if *tapti* 'to become'	Always INST
Object control	Adjective Participle	ACC / GEN	ACC object: Always INST
			GEN object: INST or DAT

	Noun	Always INST	Always INST

As can be noted form Table 6, we cannot account for the actual distribution of instrumental case by simply referring to the syntactic make up of copulas: the lexical category of the predicative element seems to affect the availability of instrumental case.

Post-copular nouns *always* appear marked with instrumental case in Pattern B: post-copular nouns surface instrumental case marked when headed by an aspectual copula *tapti* 'to become' as well as by normally stative copula *būti* 'to be.' In order to understand why *būti* 'to be' may select a resultative *PredP<fe>,* and consequently have instrumental case marked predicate nouns, lets look at some examples:

(131) a. I want to become a doctor.
b. I want to be a doctor.

In clauses (131a) as well as (b), the speaker is not yet a doctor, but expresses a desire / a wish to *become* one in the future. It means that both *be* and *become* when used in such a control clause have a change of state reading. I thus suggest that in a subject control clause like (132), *būti* is aspectual on par with *tapti* 'to become' and can license a resultant *PredP<fe>,* which in turn assigns instrumental case to predicative noun:

(132) Aš noriu būti mokytoju.
I.NOM want.PRST.1SG be.INF teacher.M.SG.INST
'I want to be a teacher.'

If I assume that *būti* 'to be' can have change of state semantics and select *PredP<fe>* as its complement in control constructions, then we would expect it to be aspectual also in other future-oriented clauses (at least for some speakers). This prediction is borne out as in simple copular clauses with *būti* 'to be' inflected in future tense, post-copular nouns can be marked with either instrumental (133a) or nominative case (133b):

(133) a. Aš būsiu mokytoju.
I.NOM be.FUT.1SG teacher.M.SG.INST
'I will be a teacher.'
b. Aš būsiu mokytojas.
I.NOM be.FUT.1SG teacher.M.SG.NOM

In fact, in copular clauses with *būti* 'to be' inflected for future tense post-copular nouns are

typically marked with instrumental case (Šukys 1998: 75, 245; Ulvydas, Ambrazas & Valeckienė 1976: 364). In this thesis, I did not study the distribution of instrumental case in simple copular clauses, but I would expect that speakers who accept instrumental case in (133a) would also exhibit instrumental case marked nouns in control constructions (e.g. 132).

To recap, since there is a strong link between the normally stative copula *būti* 'to be' and change of state / transition semantics in the future tense, I suggested that *būti* 'to be' has inner aspect, which in turn licenses *PredP<fe>* and consequently instrumental case marking on post-copular nouns.

Let us now turn to adjectives that can be instrumental case marked *only* in Pattern B. Once again we see some difference between subject and object control clauses, I have no explanation as to why this difference should exist. I will only address the fact that *būti* 'to be' does not allow post-copular adjectives in instrumental case and only *tapti* 'to become' seems to license aspectual *PredP* in subject control clauses (in object control clauses where there is no difference between *būti* 'to be' and *tapti* 'to become', I assume that post copulas are aspectual). I suggest that the semantics of change of state is not as salient with adjectives as it is with nouns. Compare the following clauses:

(134) a. I want to be brave.
b. I want to be a doctor.

While both clauses imply some a change of state, the end-point of (134a) is far more abstract that (134b). The idea that the change of state semantics of a verb is more salient with nouns than with adjectives can be supported by diachronic data from Russian. When instrumental case started spreading in post-copular position, it was first established with post-copular nouns in 13-14th centuries, a systematic extension to adjectives did not occur before late 17th century (Madariaga 2008) in Russian.

Now there is one last issue to address, namely, the fact that Pattern A and Pattern B differ with respect to the extension of instrumental case: instrumental case is only grammatical on post-copular nouns in Pattern A, while it is grammatical on nouns and adjectives in Pattern B. This issue will be addressed in section 6.5, when discussing consequences of normativity for Standard Lithuanian.

6.4. Instrumental case and outer aspect

Instrumental case in Lithuanian has been argued to convey change-of-state semantics as well as attributive, temporary characteristics (e.g. Timberlake 1988). In the previous sections, we accounted for instrumental case marking in copular clauses with change-of-state readings by suggesting that the inner aspect of a copular verb licenses *PredP<fe>,* which bears instrumental case feature. In this section, I want to explore the possibility that the same *PredP<fe>* head may be licensed by an outer aspect (outer aspect was briefly introduced in 6.3.1). Compare the following two copular clauses in Lithuanian:

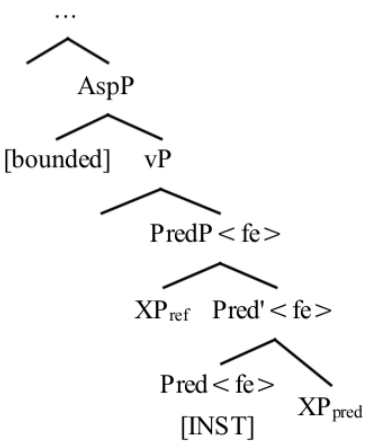
(135) a. Jonas buvo mokytojas.
John.SG.NOM be.PST.3 teacher.M.SG.NOM
'John was a teacher.'

b. Jonas buvo mokytoju.
John.SG.NOM be.PST.3 teacher.M.SG.INST
John was a teacher (temporarily).

Nominative case in (135a) indicates that *John's* profession was being a teacher, and that he is now deceased. Instrumental case marking on post-copular noun (135b), on the other hand, delivers a different reading: firstly, *John* may or may not be alive; secondly, he worked as a teacher temporarily.

We encounter a similar instrumental case – case-agreement dichotomy in copular clauses in Russian and Belarusian. In these East Slavic languages, instrumental case has been argued to convey with temporary / accidental semantics, while nominative case implies exhaustive / permanent characteristics (Miklosich 1926, Vinogradov 1960). Matushansky (2000), Richardson (2007), Markman (2008), among others, proposed capturing this difference with making reference to outer aspect. Eventualities / characteristics denoted by clauses like (135b) have been argued to be bound in time by a [+bounded] feature in distinct Aspectual projection, which is located on top of *v*P (Richardson 2007). I suggest that this outer *AspP* may license *PredP<fe>,* and consequently instrumental case on predicative XP. Consider an abstract derivation below:

(136)



Now the question is whether outer aspect can, in fact, license *PredP<fe>* that we so far have argued to only be licensed by change-of-state verbs. However, if *PredP<fe>* encodes a resultant state, an ending point, it does not seem unreasonable to assume that the same *PredP<fe>* may be used to encode outer aspect, since it is bound in time. Indeed, bounded aspect presupposes certain duration / run-time as well as ending of a particular event, otherwise the eventuality would not be locatable in time. It would thus seem not unreasonable to assume that *AspP* may license *PredP<fe>* and have instrumental case marked post-copular element.

6.5. Variation in Lithuanian control clauses

Pattern A and Pattern B differ in two major ways with respect to syntax in control clauses (i) availability of dative case on PRO in object control clauses; and (ii) the extension of predicate instrumental case. In this section, I will suggest that difference between Pattern A and Pattern B is a result of the politics of language standardization.

In the older stages of Lithuanian, the controller and PRO would normally not bear the same case (Holvoet 2001) and PRO would be dative case marked regardless of the case born by the controller (except, of course, when the controller was a dative case marked object). Next to dative case marked PRO (and consequently XPs associated with it), instrumental case marking was spreading on post-copular elements (Holvoet 2005).

The case-marking strategy on PRO that is displayed by Pattern A seems to have no traces in Old Lithuanian, and seems to be an innovation by Jonas Jablonskis (1860-1930), one of the founders of Standard Lithuanian. Holvoet (2001) hypotheses that Jablonskis predicate

instrumental case in Lithuanian since he may have thought that instrumental case spread in Lithuanian due to Slavic influence (as predicate instrumental is widely used in East Slavic languages). Jablonskis published articles on *correct* usage of Lithuanian and in these articles he would suggest *correcting* instrumental case into agreeing-case (Piročkinas 1986: 190) across all predicative clauses:

(137)	bangos	[...]	tapo	tamsiai	mėlynomis	(= mėlynos).
	wave.F.PL.NOM		become.PST.3	dark.ADV	blue.F.PL.INST	NOM
	'The waves became dark blue.'					

Though there is no evidence of PRO ever bearing the same case as its controller in Old Lithuanian (except for instances when the controller itself was dative case marked), the strategy of marking PRO in the same as its controller was picked up by grammars and guides to *correct* Lithuanian (Holvoet 2001).

Now let us see how Pattern A and Pattern B compare to the patterns described. Recall that Pattern A shows no signs of dative case marking on PRO in control and has a very restricted distribution of instrumental case. Pattern B, on the other hand, displays dative case in object control constructions and an extended use of instrumental case. I thus suggest that Pattern B is more archaic, in the sense that it remains uninfluenced or less influenced by the prescriptive rules. Pattern A, on the other hand, is heavily influenced by the innovation by Jablonskis and subsequent processes of language standardization. Given the fact that Lithuania has policies with respect to normalizing language, it is not surprising that Pattern A is far more common than Pattern B (at least, in university students).

7. Concluding remarks

The aim of this thesis was to investigate case-marking phenomena on predicative elements in Lithuanian obligatory control clauses. The thesis served as a follow up to the data reported in Timberlake's (1988) study.

The data for this thesis was collected through an informant-based study. The findings contradicted some of the generalisations reported in Timberlake (1988): (i) dative case is not linked to predicative elements in infinitival complements of NPs; (ii) predicative elements can bear accusative case if the controller is accusative case-marked; (iii) PRO does not always bear the same case as the controller, as we would have expected given Timberlake (1988)

The main finding of this study is that Lithuanian has two different strategies with respect to case marking of the infinitival subject, PRO: (i) it can either bear the same case as its controller; (ii) it can bear independently motivated dative case. Throughout this thesis, I referred to these two strategies as Pattern A and Pattern B, respectively.

I have adopted Landau's idea that control is established via a successive MULTIPLE AGREE operation between a matrix functional head and PRO, which results in PRO bearing the same φ-features and case as its controller. Contra Landau, however, I have argued that infinitival complements do not project a uniform syntactic structure; the structure of the infinitival complement depends on the selectional properties of the main verb. I suggested that in Pattern A, subject and object control verbs select *v*P-infinitives, while object control verbs of Pattern B select infinitives headed by $Mod_{root}P$, which encodes deontic modality in Lithuanian and is the source of non-structural dative case on PRO.

In this thesis, I have also addressed the nature of instrumental case on predicative XPs in Lithuanian, suggesting that there is an intimate connection between inner (and perhaps outer) aspect and instrumental case on predicative elements. I suggested that instrumental case is a morphological realisation of inner aspect: change-of state copula selects an eventive *PredP* bearing instrumental case. The eventive *PredP* has to be licensed by a higher aspectual head.

Lastly, I have shown that the strategies of case marking on PRO interact with the availability of eventive *PredP*. Pattern A, which requires PRO to bear the same case as its controller, has a very limited distribution of instrumental case (it is restricted to nouns); while Pattern B, which in object control clauses has dative case marked PRO, has a more robust distribution of instrumental case (it is available for nouns as well as adjectives and participles). I have tied this difference to prescriptivist tendencies first introduced by Jonas Jablonskis, who ousted the use of instrumental case on predicative elements in Standard Lithuanian.

8. References

Adger, D. and G. Ramchand. 2003. Predication and Equation. *Linguistic Inquiry* 34 (3): 325-359.

Ambrazas, V., Garšva, A., Girdenis, A., Jakaitienė, E., Kniūšta, P., Krinickaitė, S., Labutis, V., Laigonaitė, A., Oginskienė, E., Pikčilingis, J., Ružė, A., Sližienė, N., Ulvydas, K., Urbutis, V., Valeckienė, A. and E. Valiulytė. 1994. *Dabartinės lietuvių kalbos gramatika.* Vilnius: Mokslo ir enciklopedijų leidykla.

Andrews, A. 1971. Case agreement of predicate modifiers in Ancient Greek. *Linguistic Inquiry* 2: 127-51.

Arkadiev, P. 2015. Long-distance genitive of negation in Lithuanian. Unpublished ms. http://ling.auf.net/lingbuzz/002413 April 2015.

Babby, L.H. 1986. The Locus of Case Assignment and the Direction of Percolation: Case Theory and Russian. In Brecht R. and J. Levine (eds), *Case in Slavic*. Columbus, OH: Slavica Publishers. 170–219.

Babby, L. H. 1987. Case, Prequantifiers, and Discontinuous Agreement in Russian. *Natural Language and Linguistic Theory* 5: 91–117.

Babby, L. H. 1994. Case theory. In Otero, C. P. (ed.), *Noam Chomsky: Critical assessments*. London and New York: Routledge. 630-652.

Baker, M. C. 2003. *Lexical categories: Verbs, nouns and adjectives*. Cambridge: Cambridge University Press.

Barbiers, S. 2009. Locus and limits of syntactic microvariation. *Lingua* 119: 1607–1623.

Bailyn, J. F. 1997. Genitive of negation is obligatory. In *Annual Workshop on Formal Approaches to Slavic Linguistics: The Cornell Meeting* 1995. 84-114.

Bobaljik, J., and I. Landau. 2009. Icelandic control is not A-movement: The case from case. *Linguistic Inquiry* 40: 113–132.

Boeckx, C. and N. Hornstein 2006.

Boeckx, C., Hornstein, N., and J. Nunes, 2010. Icelandic control really is A-movement: Reply to Bobaljik and Landau. *Linguistic Inquiry* 41 (1): 111-130.

Bošković, Ž. 1996. Selection and the Categorial Status of Infinitival Complemets. In *Natural Language and Linguistics Theory* 14: 269-304.

Bošković, Ž. 1997. *The Syntax of Nonfinite Complementation: An Economy Approach.* Cambridge, MA: MIT Press.

Bošković, Ž. and H. Lasnik. 2003. On the Distribution of Null Complementizers. *Linguistic Inquiry* 34: 527-546.

Bouchard, D. 1984. *On the content of empty categories.* Dordrecht: Foris.

Bowers, J. 1993. The syntax of predication. *Linguistic Inquiry* 24: 591–656.

Borer, H. 1989. Anaphoric Agr. In Jaeggli O. and K. Safir (eds.), *The null subject parameter.* Dordrecht: Kluwer Academic Publishers. 69–109.

Bresnan, J. 1982. Control and complementation. *Linguistic Inquiry* 13 (3): 343-434.

Bresnan, J. and L. Moshi. 1990. Object asymmetries in comparative Bantu syntax. *Linguistic Inquiry* 21: 147–185.

Brown, S. 1999. *The syntax of negation in Russian.* Standford: CSLI.
Butt, M. 2010.The light verb jungle: Still hacking away. In Amberber, M., Harvey, M., and B. Baker (eds.) *Complex predicates in cross-linguistic perspective*. Cambridge: Cambridge University Press. 48–78.
Butt, M. and T. H. King. 2004. The status of case. In Dayal, V. and A. Mahajan (eds.), *Clause structure in South Asian languages*. Dordrecht: Kluwer Academic Publishers. 153-198.
Chierchia, G. 1984a. Anaphoric Properties of Infinitives and Gerunds. In Cobler, M., MacKaye S. and M. T. Wescoat (eds.), *Proceedings of the 3rd West Coast Conference on Formal Linguistics* WCCFL 3: 28-39.
Chierchia, G. 1984b. *Topics in the Syntax and Semantics of Infinitives and Gerunds*. Doctoral Dissertation, University of Massachusetts, Amherst.
Cecchetto, C. and R. Oniga. 2004. A challenge to null case theory. *Linguistic Inquiry* 35 (1): 141-149.
Chomsky, N. 1981. *Lectures on Government and Binding*. Dordrecht: Foris. Chomsky, N. 1995. *The Minimalist Program*. Cambridge, MA: MIT press.
Chomsky, N. 1986. Knowledge of language. New York: Praeger.
Chomsky, N. 1995. The Minimalist Program. Cambridge, MA: MIT press.
Chomsky, N. 2000. Minimalist inquiries: the Framework. In Martin, R. A., Michaels, D., and J. Uriagereka (eds.). *Step by step: in honor of Howard Lasnik.* Cambridge, MA: MIT Press.
Chomsky, N. 2001. Derivation by Phase. In Kenstowicz, M. (ed.), *Ken Hale: A Life in Language*. Cambridge, Massachusetts: MIT Press. 89-155.
Chomsky, N. and H. Lasnik. 1993. Principles and parameters theory. In Jacobs, J., von Stechow, A. von, Sternefeld, W. and T. Vennemann (eds.), *Syntax: An International Handbook of Contemporary Research*. Berlin: de Gruyter. 506–569.
Cinque, G. 1998. *Adverbs and functional heads: A cross-linguistic perspective*. Oxford: Oxford University Press.
Citko, B. 2008. Small clauses reconsidered: not so small and not all alike. *Lingua* 118: 261-295
Comrie, B. 1974. The Second Dative: A Transformational Approach. In Brecht, R and C. Chvany (eds.), *Slavic Transformational Syntax*. University of Michigan, Ann Arbor. 123-150.
Cuervo, M. 2003. *Datives at large*. Doctoral Dissertation, MIT.
Culicover, P. Q. and R. Jackendoff. 2006. Turn over control to the semantics! *Syntax* 92: 131-152.
Dowty, D. 1979. *Word Meaning and Montague Grammar: The Semantics of Verbs and Times in Generative Semantics and in Montague's PTQ.* Dordrecht/London: Reidel.
Filip, H. 2000. Nominal and Verbal Semantic Structure: Analogies and Interactions. *Language sciences* 23 (4): 453-501.
Franks, S. 1995. *Parameters of Slavic Morphosyntax*. New York: Oxford University Press.
Franks, S. and N. Hornstein. 1992. Secondary predication in Russian and proper government of PRO. In Larson, R. K., Iatridou, S., Lahiri U. and J. Higginbotham (eds.), *Control and grammar*. Dordrecht: Kluwer Academic Publishers. 1-50.
Franks, S. and J. E. Lavine. 2006. Case and word order in Lithuanian. *Journal of Linguistics* 42 (2): 239-288.

Gallego, A. J. 2011. Control through multiple Agree. Ms. Universitat Autònoma de Barcelona. http://www.lingv.ro/RRL%204%202011%20art01Gallego.pdf
Haeberli, E. 2003. Categorial Features as the Source of EPP and Abstract Case Phenomena. In Brandner E. and H. Zinsmeister (eds.), *New Perspectives on Case Theory*. Stanford, CA: CSLI Publications. 89-126.
Hiraiwa, K. 2001. Multiple Agree and the Defective Intervention Constraint in Japanese. *MIT Working Papers in Linguistics* 40: 67-80.
Holvoet, A. 1998. Complex (bi-clausal) passives in Latvian and Lithuanian and their connection with the nominative object. Baltistica, 33 (2): 233-242.
Holvoet, A. 2001. Impersonals and passives in Baltic and Finnic. In Dahl, Ö. and M. Koptjevskaja-Tamm (eds.), *Circum Baltic Languages vol.2: Grammar and Typology*. 363-390.
Holvoet, A. 2005. Agreement strategies in infinitival clauses in Baltic. In Vaičiulytė-Romančuk, O. and N. Ostrowski (eds.), *Prace bałtystyczne: język, literatura, kultura* vol. 2, 31-42.
Holvoet, A. 2009. Modals in Baltic. In Hansen, B. and F. De Haan (eds.), *Modals in the languages of Europe: a reference work*. Berlin: Walter de Gruyter. 199-228.
Hornstein, N. 1999. Movement and control. *Linguistic Inquiry* 30: 69-96.
Hornstein, N. 2001. *Move! A Minimalist Theory of Construal*. Oxford: Blackwell.
Greenberg, G. R. and S. Franks. 1991. A Parametric Approach to Dative Subjects and the Second Dative in Slavic. Slavic and East European Journal 35: 71-97.
Jespersen, Otto. 1965. *A Modern English Grammar on Historical Principles, Part VI: Morphology*. London: George Allen and Unwin Ltd.
Jakab, E. 2001. The Modality of Nonfinite Clauses in Slavic and Finno-Ugric, Princeton University.
Hale, K. L., and S. J. Keyser. 2002. *Prolegomenon to a theory of argument structure.* MIT press.
Kim, B. R. 2010. *Non-Finite Complements in Russian, Serbian/Croatian, and Macedonian*. Doctoral Dissertation: Indiana University.
Kondrashova, N. 1994. Secondary Predicates. Agreement and Dative Subjects in Russian. In Avrutin, S., Progovac L. and J. Toman (eds.), *Formal Approaches to Slavic Linguistics: The MIT meeting.* Ann Arbor, MI: Michigan Slavic Publications. 255-285.
Kratzer, A. 1978. *Semantik der Rede: Kontexttheorie, Modalwörter, Konditionalsätze.* Köningstein: Scriptor.
Kwon, K. 2010. *The Small Clause in Russian: Structure and History*. Doctoral Dissertation: Harvard University.
Landau, I. 2000. *Elements of Control: Structure and Meaning in Infinitival Constructions*. Dordrecht: Kluwer.
Landau, I. 2003. Movement Out of Control. *Linguistic Inquiry,* 34: 471–498.
Landau, I. 2004. The scale of finiteness and the calculus of control. *Natural Language and Linguistic Theory* 22 (4): 811-877.
Landau, I. 2006. Severing the Distribution of PRO from Case. *Syntax* 9: 153-170.
Landau, I. 2008a. Movement-resistant aspects of control. In Davies, W. D. and S. Dubinsky (eds.) *New Horizons in the Analysis of Control and Raising*. Dordrecht: Springer. 293-326.

Landau, I. 2008b. Two routes of control: Evidence from case transmission in Russian. *Natural Language and Linguistic Theory* 26 (4): 877-924.
MacDonald, J. E. 2008. *The Syntactic Nature of Inner Aspect: A Minimalist Perspective.* Amsterdam / Philadelphia: John Benjamins Publishing.
Madariaga, N. 2008. The Economy of Reanalysis: Syntactic Change as a Last Resort Operation. In *Proceedings of the Annual Workshop on Formal Approaches to Slavic Linguistics*. 248-265.
Marantz, A. 1993. Implications of asymmetries in double object constructions. In Mchombo, S. (ed.), *Theoretical Aspects of Bantu Grammar.* Stanford: CSLI. 113-150.
Marantz, A. 2000. Case and Licensing. In Reuland. E (ed.), *Arguments and Case: Explaining Burzio's Generalization*. Amsterdam: John Benjamins.11-30.
Martin, I., San. 2004. *On Subordination and the Distribution of PRO*. Doctoral Dissertation: University of Maryland.
Martin, R. A. 1996. *A Minimalist Theory of PRO and Control*. Doctoral Dissertation: University of Connecticut.
Martin, R. A. 2001. Null Case and the distribution of PRO. *Linguistic Inquiry* 32: 141-166.
Markman, V. 2008. the case of predicates (revisited): Predicate instrumental in Russian and its restrictions. *Journal of Slavic Linguistics* 16 (2): 187-246.
Marušič, F. 2005. *On Non-simultaneous Phases* Doctoral dissertation: Stony Brook University.
Matushansky, O. 2000. The instrumental inversion: instrumental case in the Russian copula. In Billerey, R. and B. O. Lillehaugen (eds.), *WCCFL 19 Proceedings.* Somerville, MA: Cascadilla Press. 288-301.
McFadden, T. 2004. *The Position of Morphological Case in the Derivation: A Study on the Syntax-Morphology Interface*. Doctoral Dissertation: University of Pennsylvania.
Mikkelsen, L. 2005. *Copular Clauses: Specification, Predication and Equation*. Amsterdam / Philadelphia: John Benjamins Publishing Company.
Miklosich, F. 1926. *Vergleichende Grammatik der Slavischen Sprachen*, IV. Syntax. Heidelberg: Carl Winters.
Quicoli, A. C. 1982. *The Structure of Complementation*. *Studies in Generative Linguistic Analysis.* Ghent-Antwerp-Brussels: E. Story-Scientia Gent.
Palmer, F., 1986. *Mood and Modality.* Cambridge: Cambridge University Press.
Pesetsky, D. 1991. *Zero Syntax II: An Essay on Infinitives*. Unpublished ms., MIT.
Piccini, S. 2008. Traces of non-nominative alignment in Lithuanian: The impersonal constructions in Indo-European perspective. *Baltistica* 48 (3): 437–461.
Piročkinas, A. 1986. *Jono Jablonskio Kalbos Taisymai.* Kaunas: Šviesa.
Przepiórkowski, A. and A. Rosen. Czech and Polish raising/control with or without structure sharing. *Research in Language* 3: 33-66.
Pylkkänen, L. 2001. What applicative heads apply to. In Fox, M., Williams, A. and E. Kaiser (eds.), *Proceedings of the 24th Annual Penn Linguistics Colloquium. Penn Working Papers in Linguistics,* 7 (1). Department of Linguistics, University of Pennsylvania.
Pylkkänen, L. 2008. *Introducing Arguments.* Linguistic Inquiry Monograph 49. Cambridge, MA: MIT Press.

Richards, N. 1999. Complementizer cliticization in Tagalog and English. In Smallwood, C. and C. Kitto (eds.), *Proceedings of The Sixth Meeting of the Austronesian Formal Linguistics Association (AFLA)*. University of Toronto. 297-312

Richards, N. 2001. *Movement in language: Interactions and architectures*. Oxford: Oxford University Press.

Richardson, K. 2007. *Case and Aspect in Slavic.* Oxford: Oxford University Press.

Roberts, I. 1985. Agreement parameters and the development of English auxiliaries. *Natural Language and Linguistic Theory* 3: 21-58.

Rosenbaum, P. S. 1967. *The grammar of English predicated complement constructions*. Cambridge, MA: MIT Press.

Ross, J. R. 1969. Auxiliaries as Main Verbs.In Todd, W. (ed.), *Studies in Philosophical Linguistics Series*. Evanston: Great Expectations Press. 77-102.

Rooryck, J. 2008. Control via Selection. In Davies, W. D. and S. Dubinsky (eds.) *New Horizons in the Analysis of Control and Raising*. Dordrecht, the Netherlands: Springer. 281-292.

Schoorlemmer, M. 1993. Dative Subjects in Russian. *Formal Approaches to Slavic Linguistics*: *The Ann Arbor meeting* (1): 129-172.

Schoorlemmer, M. 1995. *Participial Passive and Aspect In Russian*. Doctoral Dissertation: Utrecht University.

Senn, A. 1966. *Handbuch der litauischen Sprache*. Heidelberg: Winter.

Schmitt, C. 2005. Semi-copulas: Event and Aspectual Composition. In Kempchinsky, P. and R. Slabakova (eds.) *Aspectual inquiries*. Dordrecht: Springer. 121-145.

Sigurðsson, H. Á. 1991. Icelandic Case-marked PRO and the licensing of lexical arguments. *Natural Language & Linguistic Theory* 9: 327–363.

Sigurðsson, H. Á. 2008. The case of PRO. *Natural Language and Linguistic Theory* 26: 403-450.

Šukys, J. 1998. *Lietuvių kalbos linksniai ir prielinksniai: vartosena ir normos*. Kaunas: Šviesa.

Starke, M. 1995. On the Format for Small Clauses. In Cardinaletti, A. and M. T. Guasti (eds.), *Syntax and Semantics 28: Small Clauses.* New York: Academic Press. 237–269.

Stepanov, A. 2001. Late adjunction and minimalist phrase structure. *Syntax*, 4 (2): 94-125.

Svenonius, P. 1994. *Dependent nexus: Subordinate Predication Structures in English and the Scandinavian Languages*. Doctoral dissertation: University of California Santa Cruz.

Timberlake, A. 1988. Case Agreement in Lithuanian. In Barlow, M. and C. A. Ferguson (eds.), *Agreement in Natural Languages: Approaches, Theories, Descriptions*. 181-200.

Ulvydas, K., Ambrazas, V. And A. Valeckienė (eds.). 1976: Lietuvių kalbos gramatika 3, Vilnius: Mokslas.

Ussery, C. 2012. Case and Phi Features as Probes. *Coyote Papers: Working Papers in Linguistics, Linguistic Theory at the University of Arizona*.

Vázques-Laslop, M. E. 2000. Deontic meaning and subject selection: a common problem of modal auxiliaries and control verbs. *STUF-Language Typology and Universals* 53 (2): 172-185.

Vendler, Z. 1957. Verbs and Times. *Philosophical Review* 56: 143-60.

Vinogradov, V. V. 1960. *Grammatika russkogo jazika: sintaksis.* Moscow: Akademija Nauk.

Woolford, E. 2006. Lexical Case, Inherent Case, and Argument Structure. *Linguistic Inquiry* 37 (1): 111-130.

Wurmbrand, S. 2001. *Infinitives. Restructuring and Clause Structure*.Mouton de Gruyter.

Wurmbrand, S. 2002. Syntactic versus semantic control. In Zwart, J.-W. and W. Abraham (eds.), *Studies in Comparative Germanic Syntax: Proceedings of the 15th Workshop on Comparative Germanic Syntax*. 93-130.

Wurmbrand, S. 2004. Two types of restructuring—Lexical vs. functional. *Lingua* 14: 991-1014.

Zagona, K. 2004. Tense construal in complement clauses: Verbs of communication and the double access reading. In Guéron J. and J. Lecarme (eds.), *The syntax of time.* Cambridge: MIT Press. 637–654.

Zubizarreta, M. L. 1982. *On the relationship of the lexicon to syntax*. Doctoral dissertation: MIT.