Case and event structure in Russian and Lithuanian

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Abstract

This dissertation investigates the overlap of morphological case marking and event structure in Russian and Lithuanian, as well as highlighting issues in the traditional distinctions of structural and non-structural case.

I follow Babby (1994) in distinguishing between two kinds of non-structural cases. Lexical case is licensed by particular lexical items, and is unpredictable on the basis of thematic role or semantic function. Semantic case is both linked to thematic role and semantic interpretation.

I adopt an event structural analysis of argument structure, following Ramchand 2008’s framework. She proposes that argument structure relations are represented in the syntax, in an expanded vP which is composed of functional heads that correspond to the subevents denoted by a predicate: *initiation*, *process* and *result*. Thus, argument structure is based on the structural relationships of arguments and these subevents.

I examine two specific instances of non-canonical case marking in Lithuanian and Russian, with the goal of accounting for the case marking facts through an event structural analysis. The first is the phenomenon of oblique passivization. Contrary to claims in the literature (Freidin 1992, Woolford 2006), both Russian and Lithuanian allow passivization by verbs that require a case other than accusative on the internal argument. However, passive participles from oblique case verbs do differ significantly from those formed from accusative case verbs: the former do not allow for the statal, adjectival function of the passive. I argue that this is due to the fact that verbs that license oblique case on their internal arguments are always atelic (following Richardson 2007), which entails the absence of a result state. This results in a
difference in syntactic structure between accusative and non-accusative case marking verbs, and accounts for the differences in the functions of passive participles.

The second case marking phenomenon is accusative-instrumental case alternations, allowed by certain semantic classes of verbs in Russian and Lithuanian. In this alternation, the accusative is regularly used to indicate that the internal argument rates highly on the Proto Patient scale (in the sense of Dowty 1991). The instrumental case is used to indicate that the internal argument is interpreted as a means. I propose an event structural analysis of these alternations, arguing that the accusative is used when the internal argument occupies the structural position of an undergoer, highlighting that this argument is undergoing some change of location or state during the action described by the verb. Instrumental arguments are paths, arguments that modify the predicate, but do not undergo change themselves.

These two phenomena also provide evidence for a structural difference between lexical and semantic case. Under my analysis, lexical case can be licensed in the same position as structural case, while semantic case cannot.
Acknowledgements

My deepest thanks go to the members of my dissertation committee: Leonard Babby, Caryl Emerson, James Lavine and Edwin Williams. They have been gracious with their feedback, and very willing to be flexible, given the time constraints of my defense.

The idea for this dissertation started in one of Leonard Babby’s seminars on the structure of modern Russian with an example of Lithuanian’s peculiar case marking strategies: Man skauda galvą ‘My head hurts’. Thanks to a confluence of events, this single sentence set me on a path that led to Vilnius to study the language. I was well-prepared, thanks to beginning lessons with Virginija Vasilauskienė. She is also responsible for introducing me to the phenomena discussed in chapters 3 and 4, for which I am eternally grateful.

In the years that I’ve spent pursuing this degree, I have had the great fortune to have many academic mentors. My advisor, Leonard Babby, has been patient with me, and masterfully walked the fine line of urging me to write and giving me the space to do so. I thank him for imparting upon me the importance of linguistic data, and am honored to be among his last students. James Lavine, whose work I have admired since my first year at Princeton, encouraged me to submit my first conference paper, and may be to blame for the fact that I focused so much on a Baltic language for a Ph.D. in Slavic linguistics. I must also thank the professors of the linguistics program at Princeton: it was in Edwin William’s seminar that I encountered the notion of event structure, and with Bob Freidin I learned how to read theoretical texts closely. Teaching for Adele Goldberg introduced me to many other aspects of language and linguistics I would have not otherwise discovered.

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# Table Of Contents

Abstract ........................................................................................................................................ iii  
Acknowledgements ...................................................................................................................... v  
Abbreviations ............................................................................................................................. 1  

Chapter 1. Introduction .................................................................................................................. 2  
1.1. Goals of the dissertation ........................................................................................................ 4  
1.2. Why Lithuanian? .................................................................................................................... 5  
1.3. Excursus on Lithuanian morphosyntax .................................................................................. 9  
   1.3.1. Nominal Morphology .................................................................................................. 10  
   1.3.2. Verbal Morphology .................................................................................................. 13  
   1.3.3. Case in NonfiniteClauses ....................................................................................... 23  
   1.3.4. Interim Conclusion .................................................................................................. 24  
1.4. Theoretical Assumptions ...................................................................................................... 25  
1.5. Organization and Overview ................................................................................................ 26  

Chapter 2. Theoretical Background ............................................................................................. 28  
2.0. Introduction .......................................................................................................................... 28  
2.1. Case Theory .......................................................................................................................... 29  
   2.1.1. History and Development ....................................................................................... 30  
   2.1.2. Structural vs. Non-structural Case .......................................................................... 34  
   2.1.3. Morphological vs. Abstract Case .......................................................................... 50  
   2.1.4. Interim Conclusions ............................................................................................... 52  
2.2. Argument Structure .............................................................................................................. 53  
   2.2.1. Syntactic Argument Structure .............................................................................. 54  
   2.2.2. Autonomous Argument Structure (Babby 2009) .................................................... 63  
2.3. Event structure as a Representation of Argument Structure .......................................... 68  
   2.3.1. Aspectual Approaches to Event Structure .............................................................. 69  
   2.3.2. First-Phase Syntax .................................................................................................. 80  
   2.3.3. Case and Event Structure ....................................................................................... 88  
2.4. Chapter Conclusion .............................................................................................................. 93  

Chapter 3. Oblique Passivization in Russian and Lithuanian ..................................................... 94  
3.0. Introduction .......................................................................................................................... 94  
3.1. Passivization as a Test for Structural Case .......................................................................... 98  
   3.1.1. Diagnostics for Structural Case .............................................................................. 99  
3.2. Oblique Passivization in Russian ...................................................................................... 103  
   3.2.1. Passives in Russian ............................................................................................... 103  
   3.2.2. Oblique Passives in Russian .................................................................................. 106
3.3. Oblique Passivization in Lithuanian ................................................................. 110
  3.3.1. Passive in Lithuanian ......................................................................................... 110
  3.3.2. Oblique Passives in Lithuanian ...................................................................... 119

3.4. Types of Passives ............................................................................................... 127
  3.4.1. Semantic Functions of Actional and Statal Passives ........................................ 128
  3.4.2. Syntactic Behaviors of Actional and Statal Passive Participles ....................... 129
  3.4.3. Oblique Passives: Actional or Statal? ............................................................ 134

3.5. Analysis of Oblique Passivization .................................................................. 135
  3.5.1. Previous Analyses of Oblique Passivization ................................................... 135
  3.5.2. Event Structural Analysis of Oblique Passives ............................................... 137

3.6. Chapter Conclusion ......................................................................................... 141

Chapter 4. Accusative-Instrumental Case Alternations in Russian and Lithuanian ... 145

4.0. Introduction ..................................................................................................... 145

4.1. The Accusative-Instrumental Alternation in Russian and Lithuanian .............. 148
  4.1.1. Verbs of Throwing ......................................................................................... 148
  4.1.2. Verbs of Moving Body Parts ....................................................................... 152
  4.1.3. Verbs of Sound Production ......................................................................... 156
  4.1.4. Verbs of Dressing ....................................................................................... 160
  4.1.5. Interim Conclusions .................................................................................... 163
  4.1.6. What the Alternations are not: Differential Object Marking (DOM) .............. 164

4.2. Affectedness, Transitivity and Event Structure ............................................... 165
  4.2.1. Dowty 1991: Prototypical Patients ............................................................... 166
  4.2.2. Event Structure Alternations ...................................................................... 171
  4.2.3. Case and Causation .................................................................................... 175

4.3. Structural representation of case alternations ................................................. 179
  4.3.1. An Argument Structure Based Analysis of Accusative-Instrumental Alternations in Russian and Lithuanian 180
  4.3.2. A “First-Phase” Syntax Approach ............................................................... 189

4.4. Chapter Conclusion ....................................................................................... 201
  4.4.1. Implications for Case Theory ...................................................................... 201
  4.4.2. Case Theory and Event Structure ............................................................... 204

Chapter 5. Concluding Remarks ........................................................................... 208

Bibliography .......................................................................................................... 211
## Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
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<td>1</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; person</td>
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<td>2</td>
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<tr>
<td>3</td>
<td>3&lt;sup&gt;rd&lt;/sup&gt; person</td>
</tr>
<tr>
<td>ACC</td>
<td>accusative</td>
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<tr>
<td>ACT</td>
<td>active participle</td>
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<tr>
<td>[-AGR]</td>
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<td>AP</td>
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<tr>
<td>APPL</td>
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<td>SG</td>
<td>singular</td>
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<td>SP</td>
<td>subject agreement prefix</td>
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**Chapter 1. Introduction**

One of the hallmarks of modern linguistics is the interplay between empirical data and theoretical explanation. The theoretical ideal is to construct a model that not only accounts for the linguistic evidence at hand, but also makes powerful predictions. When new facts are discovered, a theory can be tested against these facts. When the theory proves to be inadequate, progress can be made by modifying it to account for new data. In this dissertation, I aim to do precisely that.

This dissertation examines the limitations of generative grammar’s case theory based on evidence from Russian and Lithuanian. I present two phenomena involving atypical case marking in these two languages: passivization of verbs that license non-structural case on their internal arguments, and accusative-instrumental case alternations. My goal is to demonstrate how these data contradict many major claims of current case theory in terms of typology (e.g. structural vs. inherent/lexical), and to propose that the case markings can be accounted for with an event structural analysis of argument structure and syntax.

The first phenomenon, taken up in chapter 3, is the ability of some Russian and Lithuanian verbs that require an oblique case on the internal argument to passivize, as shown in (1) and (2).

(1) Russian oblique passive:
   a. Borisov upravljaet fabrikoj/*fabriku
      Borisov:NOM manages factory:INST/*ACC
      ‘Borisov manages the factory.’
   
   b. Fabrika upravljaet-sja Borisovym.
      factory:NOM manages-REFL Borisov:INST
      ‘The factory is managed by Borisov.’ (Fowler 1996: 519)
The examples in (1) and (2) show that the verbs *upravljat‘ manage* (Russian) and *atstovauti ‘represent* (Lithuanian) require a case other than accusative on the internal argument, which is in itself not remarkable for languages with rich morphological case systems. However, under passivization, shown in (1) and (2), the internal argument is promoted to the nominative, agreeing subject, which is considered impossible elsewhere in the literature (Freidin 1992, Woolford 2006). I will show in chapter 3 that passive participles from oblique case verbs differ from other passive participles in their inability to be used in the statal, or adjectival function, which is an object-oriented resultative. My proposal is that verbs which do not license accusative case on their internal arguments are inherently atelic, and as such the internal argument cannot denote the holder of a resulting state.

The second phenomenon, taken up in chapter 4, is accusative-instrumental case alternations. Certain classes of Lithuanian verbs, shown in (3), allow either accusative or instrumental on the internal argument. This is also possible for one of these classes of verbs in Russian, shown in (4).

(3) Lithuanian accusative-instrumental alternations:

a. Berniukai mėtė akmenis/akmenimis į langą.
   boys:NOM threw stones:ACC/INST at window
   ‘The boys threw stones at the window.’

b. Ona traukė pečius/pečiais.
   Ona shrugged shoulders:ACC/INST
   ‘Ona shrugged her shoulders.’
c. Apsaugininkas žvang-in-o raktus/raktais.  
guard jingle-CAUS-PST keys:ACC/INST  
‘The guard jingled the keys.’

d. Moteris avėsi /avėjo batus / batais.  
woman put.on/wore shoes:ACC/INST  
‘The woman put on / wore shoes.’

(4) Russian accusative-instrumental case alternation:  
Mal’čiki brosali kamni/kamnjami v okno.  
boys:NOM threw stones:ACC/stones:INST at window:ACC  
‘The boys threw stones at the window.’

At first blush, the use of accusative or instrumental case appears to have no effect on meaning, but as I discuss in chapter 4, there is a difference in meaning: accusative is used when the internal argument is interpreted as an affected patient, and instrumental is used when the internal argument is interpreted as the means for performing the action. The reason that Lithuanian allows so many more alternations than Russian is due to the fact that the accusative case in (3a)-(3d) is not necessarily an instance of structural case, but rather contributes to the meaning of the clause, and as such is an instance of semantic case. This assumes that the instrumental is basic, and the accusative is derived. In Russian, accusative does not have this function, and the accusative in (4) is basic, and the instrumental is derived.

My analyses of these case phenomena in Russian and Lithuanian rely on an event structure approach to argument structure. That is, the information about a predicate’s arguments and their realization is related to the lexical semantic information that also encodes information about the types of events that are denoted by these predicates.

1.1. Goals of the dissertation

I have two goals for this dissertation. My first goal is to show that case theory inadequately accounts for the variety of case patterns seen in languages with rich morphological case systems, such as Russian and Lithuanian. Most importantly, the distinction between structural and non-
structural case is not enough. Rather, I will provide evidence, following Babby 1986 and Woolford 2006, that non-structural case should be divided into lexical case, a strong requirement of a lexical item, and semantic case, which adds to the interpretation of the sentence and is based on the thematic role. I will show, on the basis of the case marking phenomena given above in (1)-(4), that not all instances of non-structural case are the same, and in fact are licensed in different structural positions.

My second goal is to provide an event structural analysis of case licensing. Previous works have explored the connection between event structure and morphological case, such as Kiparsky 1998, Svenonius 2002 and Richardson 2007. I rely on the framework presented in Ramchand 2008, in which the event structure of a predicate is represented in the syntactic structure.

1.2. Why Lithuanian?
I chose to examine Lithuanian case marking phenomena because there is a natural point of comparison with similar Slavic data, which has been fairly widely studied over the past several decades, thanks to seminal work by Babby (1980, 1989, 2009, inter alia). The Baltic and Slavic language families share many structural features, e.g. rich morphological case, relatively free word order, and impersonal constructions, yet differ in important ways that make for fruitful comparison. Even though Lithuanian shares many features with Russian and other Slavic languages, perhaps due to common historical development, the languages differ in important ways. Furthermore, Lithuanian has received little attention in the field of generative linguistics, aside from work on the impersonal passive. This is perhaps due to the fact that it is extremely understudied outside of Eastern Europe, and few if any native speakers have studied generative linguistics, which seems to be a trend for introducing new language data into the canon.
On the grand scale of the linguistic diversity across the world’s languages, modern Lithuanian is not dramatically different from the Slavic languages. However, it is clear that Lithuanian is not a member of the Slavic family, despite some similarities. There are many sound changes common to the Slavic languages that Lithuanian did not undergo, such as the resolution of certain diphthongs. Where Slavic disallowed diphthongs with the vowels /e/ or /o/ and a liquid (/r/ or /l/) between non-liquid consonants, Lithuanian retained them:

(5) | LCS\(^1\) | Russian | Polish | Lithuanian | Gloss |
--- | --- | --- | --- | --- | --- |
*голова* | *golva* | *głowa* | *galva* | ‘head’ |
*молот’* | *molot’* | *młeć* | *milti* | ‘grind’ |
*городъ* | *gorod* | *gród* | *gardas* | ‘enclosure’ |

While such similar lexical items can be seen as evidence of a unique Balto-Slavic history, note that the word for ‘grind’ is similar to English *mill*, and LCS *гординъ* is related to *garden*, indicating that these are Indo-European roots.

Lithuanian retains the distinction between *o*- and *u*-stem nominal declensions, where Slavic collapsed them into one declension class (although there are some vestiges of the *u*-stem declensions). Furthermore, Slavic maintains three genders (masculine, feminine, neuter), whereas across Baltic the neuter is lost. Despite such differences, both Slavic and Baltic have preserved the same six syntactic\(^2\) cases: nominative, accusative, genitive, dative, locative and instrumental. Both also use lexical prefixes to alter the meaning of verbs, which can be seen quite robustly in verbs of motion:

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\(^1\) Late Common Slavic. These proto-forms are taken from Townsend and Janda 1996.
\(^2\) Vocative case does not have a syntactic function, although it is preserved in Lithuanian and many Slavic languages aside from Russian.
Like Slavic, these verbal prefixes are related to prepositions:

Unlike Slavic, however, Lithuanian does not lexicalize aspect to a great extent. Rather, as we will see in section 1.3, Lithuanian has a very rich morphological system of tense, which includes a large number of participles. Aspectual differences can be expressed with prefixes and suffixes, but also by means of compound tenses.

There are also syntactic similarities between Lithuanian and the Slavic languages. The uses of the morphological cases seem quite similar in many instances, such as nominative on subjects, accusative on objects, and dative on experiencers. Genitive under negation is found in Slavic (optional in Russian, obligatory in Polish), and is obligatory in Lithuanian, as in (8).

(8) a. Matau paukšti.
saw:1.SG bird:ACC
'I saw a bird.'

b. Ne-matau paukščio/*paukšti.
NEG-saw:1.SG bird:GEN/*ACC
'I didn’t see a bird.' (Ambrazas 2006: 486)
Both also have a great number of impersonal sentences, often with dative experiencers and nominative themes (see section 1.3.2.3 for examples). Genitive case often marks possession, but the word order is different: in Slavic the possessive follows the head noun, whereas in Lithuanian it precedes the head noun, as in (9).

(9)  a. Lithuanian possessive genitive:
     vaikos rankas
     child:GEN hand
     ‘child’s hand’

     b. Russian possessive genitive:
     ruka rebenka
     hand child:GEN
     ‘child’s hand’

Dative is also used to mark possession in Lithuanian and Slavic, particularly with body parts, shown in (10).

(10) a. Lithuanian dative possessive
     Pabučiavo ranką motinai.
     kissed hand:ACC woman:DAT
     ‘He kissed the woman’s hand.’ (Ambrazas 2006: 626)

     b. Russian dative possessive:
     Poceloval ruku ženščine
     kissed hand:ACC woman:DAT
     ‘He kissed the woman’s hand.’

The functions of instrumental case seem to overlap as well, with Lithuanian even having some use of predicate instrumental, similar to that in Russian. Examples are in (11).

     Mes laikėme ji išminčiumi /išmintingu.
     we consider him:ACC wise.man:INST /wise:INST
     ‘We consider him a wise man/wise.’

     b. Russian predicate instrumental:
     My sčitaem ego umnym.
     we consider him:ACC smart:INST
     ‘We consider him smart.’
Non-finite clauses in Lithuanian differ from Slavic, largely because of the function of the Lithuanian participle as a non-finite verb form in lieu of the infinitive. However, dative case is used to mark the “subject” of infinitival clauses in both Lithuanian and Slavic. As will be discussed below, Lithuanian also has dative subjects for certain participles, not unlike the dative absolute construction of Old Church Slavonic, shown in (12).

(12) Učęštu emu ljudi vů crīkūve…sūstaše sę arxierei.
    teach:PRS.ACT.DAT he:DAT people in church gather REFL chief.priests
    ‘As he taught the people in the temple, the chief priests gathered.’
    (Lunt 2001: 149)

My goal here is not to make an exhaustive list of comparisons between Baltic and Slavic, but rather attempt to make clear that Lithuanian is not a Slavic language, and highlight major differences and similarities. The following section should help further elucidate that point for those familiar with any of the Slavic languages.

1.3. **Excursus on Lithuanian morphosyntax**

In this section I will give a brief background on Lithuanian morphosyntax to familiarize the reader with the rich nominal and verbal morphology we will see throughout the thesis. Of special interest are the voice alternations involving the reflexive affix –si-, and the functions of the participles.

The basic word order of Lithuanian is subject-verb-object (SVO). While this is the basic word order, constituents can be reordered with semantic effect (focus, emphasis, context) based on information structure and discourse relatedness. Nouns and adjectives can appear in any of the seven morphological cases (nominative, genitive, dative, accusative, instrumental and locative, plus vocative for nouns). There are two distinct genders (masculine and feminine), and two numbers (singular and plural). Additionally, adjectives can occur in a non-agreeing form, a vestige of the neuter. Verbs can occur in four simple tenses (present, future, past and past
frequentative), plus compound tenses with auxiliary būti ‘to be’ and a verbal participle (active past, present, future, past iterative, or passive past, present, or future).

1.3.1. Nominal Morphology

Lithuanian nouns exhibit six declensions, based on the genitive singular form -(i)o, -(i)os, -ēs, -ies, -aus, and -s, with a consonant in the stem (generally in -n- or -r-) of all but the nominative singular form. All declensions are distinct in singular and plural. Nouns are inherently either masculine or feminine; the neuter gender has been lost. Nouns in –as are always masculine, and those in –a or –ē are always feminine. Nouns in –is are primarily feminine; those that are masculine differ only in dative singular. Consonant stem nouns are generally masculine, although a few are feminine. Nouns can be either singular or plural, though there are a number of pluralia tantum (always plural) nouns. There are some vestigial dual forms, most clearly seen in the pronouns mudu/mudvi ‘we two (M/F)’ and judu/judvi ‘you two (M/F)’. Examples of the various declension classes are given in Table 1.
Table 1. Nominal declension classes.

A. Masculine.

<table>
<thead>
<tr>
<th>SG</th>
<th>-o</th>
<th>-io</th>
<th>-aus</th>
<th>-ies</th>
<th>-s</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOM</td>
<td>vyr- as</td>
<td>brol-is</td>
<td>turg-us</td>
<td>žver-is</td>
<td>akmuo</td>
</tr>
<tr>
<td>ACC</td>
<td>vyr- q</td>
<td>brol- i</td>
<td>turg- y</td>
<td>žver- i</td>
<td>akmen- i</td>
</tr>
<tr>
<td>GEN</td>
<td>vyr- o</td>
<td>brol- io</td>
<td>turg- aus</td>
<td>žver- ies</td>
<td>akmen- s</td>
</tr>
<tr>
<td>DAT</td>
<td>vyr- u</td>
<td>brol- iui</td>
<td>turg- ui</td>
<td>žver- iui</td>
<td>akmen- iui</td>
</tr>
<tr>
<td>LOC</td>
<td>vyr- e</td>
<td>brol- yje</td>
<td>turg- uje</td>
<td>žver- yje</td>
<td>akmen- yje</td>
</tr>
<tr>
<td>INST</td>
<td>vyr- u</td>
<td>brol- iu</td>
<td>turg- umi</td>
<td>žver- imi</td>
<td>akmen- iu</td>
</tr>
<tr>
<td>VOC</td>
<td>vyr- e</td>
<td>brol- i</td>
<td>turg- au</td>
<td>žver- ie</td>
<td>akmen- ie</td>
</tr>
</tbody>
</table>

PL

| NOM | vyr- ai | brol- iai | turg- ūs | žver- ys | akmen- ys |
| ACC | vyr- us | brol- ius | turg- us | žver- is | akmen- is |
| GEN | vyr- u | brol- iu | turg- y | žver- iu | akmen- iu |
| DAT | vyr- u | brol- iams | turg- ums | žver- ims | akmen- ims |
| LOC | vyr- uose | brol- iuose | turg- uose | žver- yse | akmen- yse |
| INST | vyr- aisi | brol- iais | turg- umis | žver- imis | akmen- imis |

B. Feminine.

<table>
<thead>
<tr>
<th>SG</th>
<th>-os</th>
<th>-ios</th>
<th>-ēs</th>
<th>-ies</th>
<th>-s</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOM</td>
<td>jūr- a</td>
<td>vyšn- ia</td>
<td>bit- ē</td>
<td>šird- is</td>
<td>dukun- ē</td>
</tr>
<tr>
<td>ACC</td>
<td>jūr- q</td>
<td>vyšn- iq</td>
<td>bit- ē</td>
<td>šird- i</td>
<td>dukter- ī</td>
</tr>
<tr>
<td>GEN</td>
<td>jūr- os</td>
<td>vyšn- ios</td>
<td>bit- ēs</td>
<td>šird- ies</td>
<td>dukter- s</td>
</tr>
<tr>
<td>DAT</td>
<td>jūr- ai</td>
<td>vyšn- iai</td>
<td>bit- ei</td>
<td>širdž- iai</td>
<td>dukter- iai</td>
</tr>
<tr>
<td>LOC</td>
<td>jūr- oje</td>
<td>vyšn- ioe</td>
<td>bit- ēje</td>
<td>šird- yje</td>
<td>dukter- yje</td>
</tr>
<tr>
<td>INST</td>
<td>jūr- a</td>
<td>vyšn- ia</td>
<td>bit- e</td>
<td>šird- imi</td>
<td>dukter- imi/- ia</td>
</tr>
<tr>
<td>VOC</td>
<td>jūr- a</td>
<td>vyšn- ia</td>
<td>bit- e</td>
<td>šird- ie</td>
<td>dukter- ie</td>
</tr>
</tbody>
</table>

PL

| NOM | jūr- os | vyšn- ios | bit- ēs | šird- ys | dukter- ys |
| ACC | jūr- as | vyšn- ias | bit- es | širdž- is | dukter- is |
| GEN | jūr- u | vyšn- iu | bieč- iu | šird- iu | dukter- u |
| DAT | jūr- oms | vyšn- imos | bit- ēms | šird- im | dukter- im |
| LOC | jūr- ose | vyšn- iose | bit- ēše | šird- yse | dukter- yse |
| INST | jūr- omis | vyšn- iomis | bit- ēmis | šird- imis | dukter- imis |
Adjectives agree with nouns in gender and number, and occur in three declensions, -(i)as, -us, or -is for masculine, and –(i)a, -i, or –ė for feminine. There is also a non-agreeing adjective in –a or –u, but is never formed from third declension adjectives (in –is). Adjectives can also have a definite suffix, which adds a meaning of specificity (e.g. used in species’ names or particular things/times/places), shown in

(13)  
   a. maž-as  prinas  
        little-NOM.M.SG  prince:NOM.M.SG
   ‘(a) little prince’

   b. Maž-as-is  Prinas  
        little-NOM.M.SG-DEF  prince:NOM.M.SG
   ‘The Little Prince’ (the book)

Possession is generally shown with a prenominal genitive, as shown above in (9), although there is a unique possessive form for 1st and 2nd singular possessive pronouns (possessive forms mano and tavo rather than genitive manęs and tavęs, respectively). This form is also seen in the interrogative pronoun kas (possessive kieno rather than genitive ko). As we will see in the chapter on oblique passivization, it is the possessive, not the genitive, used for the by-phrase in Lithuanian, although the two are usually homophonous.

The functions of the cases in Lithuanian generally match the functions of the cases in Slavic. In contrast to Slavic, however, the Lithuanian locative case occurs without a preposition, and can only be used in a locative sense (unlike the “prepositional” case that occurs in a non-locational function with the pronoun o ‘about’ in Russian). Also unlike Slavic, cases are (almost) entirely morphologically distinct in Lithuanian. Accusative manifests itself on every noun, singular or plural, and there is no distinction for animate or inanimate (which arose from homophony in nominative and accusative singular in Slavic after the fall of the jers).
1.3.2. Verbal Morphology

1.3.2.1. Tense

There are four tenses in Lithuanian: present, past, future and past frequentative. The verb agrees with its subject in person and number, but not for gender in any of the simple tenses. Singular and plural are not morphologically distinct for 3\textsuperscript{rd} person. Only with participles is there gender agreement, and number agreement in 3\textsuperscript{rd} person. The finite paradigm of the verb *daryti* ‘do’ is shown in Table 2.

Table 2. Finite forms of *daryti* ‘do’.

<table>
<thead>
<tr>
<th></th>
<th>1sg</th>
<th>2sg</th>
<th>3sg</th>
<th>1pl</th>
<th>2pl</th>
<th>3pl</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
<td>darau</td>
<td>darai</td>
<td><em>daro</em></td>
<td>darome</td>
<td>darote</td>
<td><em>daro</em></td>
</tr>
<tr>
<td>Past</td>
<td>dariau</td>
<td>darie i</td>
<td>darë</td>
<td>darëme</td>
<td>darëte</td>
<td>darë</td>
</tr>
<tr>
<td>Past freq.</td>
<td>darydavau</td>
<td>darydavai</td>
<td><em>darydavo</em></td>
<td>darydavome</td>
<td>darydavote</td>
<td><em>darydavo</em></td>
</tr>
<tr>
<td>Future</td>
<td>darysiu</td>
<td>darysi</td>
<td><em>darys</em></td>
<td>darysime</td>
<td>darysite</td>
<td><em>darys</em></td>
</tr>
<tr>
<td>Subjunctive</td>
<td>daryčiau</td>
<td>darytum</td>
<td><em>darytų</em></td>
<td>darytumedė-me</td>
<td>darytumedėte</td>
<td><em>darytų</em></td>
</tr>
</tbody>
</table>

In addition to the simple tenses are compound tenses, which include a finite form of the auxiliary verb *būti* ‘to be’ and the past active participle. The compound perfect tenses, which indicate a state resulting from a previous action (Ambrazas 2006: 248), are formed with the past active participle, and can occur in all four tenses and moods (which are marked on the auxiliary). The full paradigm of the verb *(pa)daryti* ‘do’ is shown in Table 3\textsuperscript{3}. Examples of the compound tenses, with the resultative meaning, are shown in (14), from Ambrazas 2006 (248-9).

---

\textsuperscript{3} Aspectual prefixes like *pa-* will be discussed below.
Table 3. Active tense forms of *(pa)daryti* ‘to do’.

<table>
<thead>
<tr>
<th>Tense</th>
<th>Simple tense (= non-perfect)</th>
<th>Periphrastic Tense (= perfect)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Imperfective</td>
<td>Perfective</td>
</tr>
<tr>
<td>Present</td>
<td>daro</td>
<td>padaro</td>
</tr>
<tr>
<td></td>
<td>‘is doing’</td>
<td>‘does (from time to time)’</td>
</tr>
<tr>
<td>Past</td>
<td>darë</td>
<td>padarë</td>
</tr>
<tr>
<td></td>
<td>‘was doing’</td>
<td>‘did’, ‘has done’</td>
</tr>
<tr>
<td>Past freq.</td>
<td>darydavo</td>
<td>padarydavo</td>
</tr>
<tr>
<td></td>
<td>‘used to be doing’</td>
<td>‘used to have been doing’</td>
</tr>
<tr>
<td>Future</td>
<td>darys</td>
<td>padarys</td>
</tr>
<tr>
<td></td>
<td>‘will be doing’</td>
<td>‘will do’</td>
</tr>
</tbody>
</table>

(14) a. Present perfect:

Kažkas namie yra nakvoj-ës – lova ne-paklota.

someone at home is spend.night-PST.ACT.M.SG bed NEG-made.

‘Someone must have slept at home, the bed has not been made.’

b. Past perfect:

Buvau pamirë-ës, brolis praë tau perduoti ši laišką.
was:1.SG forget-PST.ACT.M.SG brother asked you:DAT give this letter

‘I forgot (lit. had forgotten), my brother asked me to give you this letter.’

There are also a compound continuativ e tenses, with three forms: past continuative, past continuative frequentative, and future continuative. The past is the most common, with the other two found primarily in Samogitian dialects (Ambrazas 2006: 250). Like the compound perfect tenses, the continuative tenses have the tense marked on the auxiliary būtī, but instead of the past active participle, the present active participle is used, often with the continuative prefix be-.

These tenses indicate an action which started before another action, and continues at the time of the other action. An example is shown in (15).

(15) Kai jëjo šeimininkas, visi jau buvo
when came in master everybody:M.PL already AUX:PST.3
be-sëd-ë sit už:ACC table

‘When the master came in, everybody was already sitting at the table.’
1.3.2.2. Aspect

Aspect is a verbal category in Lithuanian, as it is in Slavic, although it is not as regular. Unprefixed imperfective verbs can be made perfective, most commonly with the prefix *pa-*.

Not every verb has an aspectual partner, which is the case in Russian\(^4\). Often, the prefix also changes the lexical meaning, in some cases quite drastically, as shown in (16):

\[(16) \quad \begin{array}{ll}
rasti & \text{‘find’ (imperfective)} \\
surasti & \text{‘find’ (perfective)} \\
prarasti & \text{‘lose’} \\
atrasti & \text{‘discover’} \\
i\text{"rasti} & \text{‘invent’} \\
\end{array}\]

The perfective prefixed form can also be used in the present tense with an imperfective meaning, as shown in Table 2 above. Given the rich participial system of compound tenses, aspect can be expressed in means other than the lexical verb.

In addition to prefixation, suffixation can affect the aspect of a verb, with both imperfectivizing and perfectivizing suffixes (Ambrazas 2006: 236). Most suffixes add a repetitive meaning to the verb (imperfectivizing), even if the verb is prefixed. The only perfectivizing suffix is *–el(ė)ti/–er(ė)ti*, which creates an semelfactive verb, which is carried out once and completed. Examples are given in (17)-(18):

\[(17) \quad \begin{array}{ll}
\žvelgti & \text{‘glance, cast a glance’} \\
\žvilgčioti & \text{‘glance (repeatedly)’} \\
\žvilgterėti & \text{‘cast a glance’} \\
\end{array}\]

\[(18) \quad \begin{array}{ll}
šauti & \text{‘shout’} \\
šūkauti & \text{‘shout (repeatedly, for some time)’} \\
šūktelešti & \text{‘utter a cry’} \\
\end{array}\]

\(^4\) There is a small number of biaspectual verbs in Russian, and a few verbs that lack aspectual partners.
In addition to the aspect of the verb, grammatical aspect is also expressed in the tenses. As discussed in the preceding section, the compound tenses are perfect, and can have a resultative reading, while the simple tenses do not give such a reading. This will be somewhat relevant again in chapter 3.

1.3.2.3. Voice

Lithuanian verbs can be in either active or passive voice, with the latter expressed solely through passive participles. The full passive paradigm of (pa)daryti ‘do’ is shown in Table 4.

Table 4. Passive forms of (pa)daryti ‘to do’.

<table>
<thead>
<tr>
<th>Tense</th>
<th>Present passive (= non-perfect)</th>
<th>Past passive (= perfect)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Imperfective</td>
<td>Perfective</td>
</tr>
<tr>
<td>Present</td>
<td>(yra) daroma ‘is being done’</td>
<td>(yra) padaroma ‘is (being) done’</td>
</tr>
<tr>
<td>Past</td>
<td>buvo daroma ‘was being done’</td>
<td>buvo padaroma ‘was (being) done’</td>
</tr>
<tr>
<td>Past freq.</td>
<td>budavo daroma ‘used to be being done’</td>
<td>budavo padaroma ‘used to be (being) done’</td>
</tr>
<tr>
<td>Future</td>
<td>bus daroma ‘will be being done’</td>
<td>bus padaroma ‘will be (being) done’</td>
</tr>
</tbody>
</table>

In typical passive sentences, the internal argument is promoted to a nominative subject, which the participle agrees with in number and gender. The auxiliary, as shown in Table 2, is optional in the present, but not for other tenses. The agent is optionally expressed in a genitive by-phrase. The passive will be discussed in more detail in chapter 3.

Intransitive verbs can also appear as passive participles, but only in the non-agreeing form in –ma/-ta. The subject of these verbs can also occur as a genitive by-phrase. The
intransitive passive functions as an impersonal sentence, removing the focus from the agent by eliminating it or expressing it in genitive case.

Non-agreeing passive participles can also be used to express the evidential mood, primarily with intransitive verbs\(^5\). This is used to express that the statement is hearsay or inferred information. Direct objects in the active are expressed as nominative in the evidential construction, but the participle does not agree, as shown in (19). Accusative case is also possible, as shown in (20). Oblique objects retain their active case marking, shown in (21).

(19) Girdėjau jo mieste namas stato-m-a.
    heard:1.SG him:GEN town:LOC house:NOM build-PRS.PASS-[AGR]
    ‘I heard he is building a house in town.’ (Ambrazas 2006: 281)

(20) Jo su geiniu iš dreivių medų kopama
    he:GEN with stepladder from hollows honey:ACC take-PRS.PASS-[AGR]
    ‘He apparently took the honey from the hollows of the tree with a stepladder.’
    (Lavine 2000: 191)

(21) Studento paprašyta tėvo/*tėvas pirkti laikrodį
    student:GEN ask-PST.PASS-[AGR] father:GEN/*NOM buy:INF watch:ACC
    ‘The student apparently asked his father to buy the watch.’ (Lavine 2000: 206)

Lithuanian lacks a middle voice, although there are some uses of the reflexive affix\(^6\) –si- that share some of the functions of the middle. Most obvious are the reflexives that imply a human agent without expressing it, as in (22).

(22) Durys lengvai rakina-si
    door:NOM easily lock-REFL
    ‘The door locks easily’ (Ambrazas 2006: 232)

---
\(^5\) The evidential function participles has received the most discussion in the literature. See Timberlake 1982, Vaysman 1999, Lavine 2000.
\(^6\) The affix -si- is always a clitic on the verb. It follows unprefixed verbs, and occurs between prefixes and the verb:
   (i) džiaugtis-s, ne-si-džiaugtis, pa-si-džiaugtis, ne-pa-si-džiaugtis
       rejoice-REFL, NEG-REFL-rejoice, PRF-REFL-rejoice, NEG-PRF-REFL-rejoice
Similar to the middle, but closer to the passive, are the reflexive verbs which Ambrazas (2006) labels “decausative”, in which the object of the non-reflexive becomes the subject (not unlike the passive), as in (23).

(23) a. Už-deg-iau šviesą.
    PRF-turn.on-1.SG.PST light:ACC
    ‘I turned on the lights.’

     b. Šviesa už-si-deg-ė.
    light:NOM PRF-REFL-turn.on-3.PST
    ‘The lights turned on’ (Ambrazas 2006:230)

However, this is alternation is limited to a small number of verbs and is not productive. Another alternation similar to the passive is seen in (24), with the external and internal arguments effectively switching positions.

(24) a. Ežeras at-spind-i dangų
    lake:NOM PRF-reflect-3.PRS sky:ACC
    ‘The lake reflects the sky’

     b. Dangus at-si-spind-i ežere
    sky:NOM PRF-REFL-reflect-3.PRS lake:LOC
    ‘The sky is reflected in the lake’ (Ambrazas 2006: 232)

Also of note are idiomatic reflexive alternations, in which the reflexive occurs with a dative subject, as in (25)-(27), or a generic human subject is implied, as in (28). Note that the genitive of negation applies to the “subject” in (27c).

(25) Broliui nor-i-si miego
    brother:DAT want-3.PRS-REFL sleep:GEN
    ‘(My) brother wants (to) sleep / feels sleepy’ (Ambrazas 2006: 507)

(26) Rašytojui ne-si-dirb-a ryte
    writer:DAT NEG-REFL-work-3.PRS morning:LOC
    ‘The writer can’t work in the morning’

(27) a. Aš gird-u muziką
    I:NOM hear-1.SG.PRS music:ACC
    ‘I hear music’
b. Man gird-i-si muzika
   me:DAT hear-3.PRS-REFL music:NOM
   ‘I can hear music’

c. Man ne-si-girdė-jo balsų
   me:DAT NEG.st.heard.3.PST voices:GEN
   ‘I couldn’t hear voices’ (Ambrazas 2006: 632)

(28) Laukuose ne-be-si-matė žmonių
   fields:LOC NEG-CNT-REFL-see-3.PST people:GEN
   ‘One could no longer see people in the fields (or ‘There were no longer any people seen in the fields’) (Ambrazas 2006: 633)

Much has been written about reflexive verb alternations in Slavic (see Babby 1975 for Russian in particular) and Romance (Burzio 1986, Cinque 1988), and Lithuanian does not seem to vary much from attested patterns (see Geniušienė 1987 for an overview of reflexives in Baltic and other languages).

One way in which Lithuanian reflexives do differ from those in Russian is that they can stand in for either accusative or dative objects. Accusative “case-absorption” (for lack of a better term) is seen above in (23). The reflexive particle can also “absorb” dative case, in verbs where the action is done for the benefit of oneself, as in (29).

(29) a. nu-pirk-ti batus vaikui
    PRF-buy-INF shoes:ACC child:DAT
    ‘To buy shoes for the child’

               b. nu-si-pirḳti batus (*vaikui)
    PRF-ST-buy-INF shoes:ACC (*child:DAT)
    ‘To buy oneself shoes’

This accounts for the fact that reflexive verbs can occur with accusative objects, and why the reflexive affix is not productively used as a passivizing morpheme: it doesn’t unambiguously absorb accusative case.
1.3.2.4. Mood

There are four moods given in grammars of Lithuanian: indicative, imperative, subjunctive and oblique (evidential) mood. The latter is formed with non-agreeing passive participles, as shown above, or non-agreeing active participles, but unlike the compound perfect tenses shown above in Table 2, the participle does not (and cannot) occur with an auxiliary verb. Oblique mood can occur in all four simple tenses, and in compound tenses with the oblique mood occurring on the auxiliary būti. Because the present tense form of būti can be omitted, simple forms are often replaced with compound forms to avoid ambiguity with the indicative mood. The paradigm of mesti ‘throw’ is given in Table 5.

Table 5. Comparison of oblique and indicative mood of mesti ‘throw’

<table>
<thead>
<tr>
<th>Simple tenses</th>
<th>Compound tenses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Oblique</td>
</tr>
<tr>
<td>Present</td>
<td>metąs</td>
</tr>
<tr>
<td>Past</td>
<td>metęs</td>
</tr>
<tr>
<td>Past freq.</td>
<td>mesdavęs</td>
</tr>
<tr>
<td>Future</td>
<td>mesiąs</td>
</tr>
</tbody>
</table>

Oblique mood can convey several meanings: indirectly perceived information, hearsay or reported information, doubtful or unreliable information, an action implied by its results, and unexpected or surprising actions (Ambrazas 2006: 264). The first two meanings are usually further emphasized with a verb of perception, saying, or sensation.

As mentioned in section 1.3.2.3, there is also an evidential mood, formed with non-agreeing passive participles. Non-agreeing active participles can also be used to indicate hearsay, as shown in (30).
(30) a. Čia daug grybų buv-ę
   Here many mushrooms:GEN were-PST.ACT.[-AGR]
   ‘(I heard) there used to be a lot of mushrooms here’

   b. Jai nuo darbo rankas suk-ą
      her:DAT from work arms:ACC ache-PRS.ACT.[-AGR]
      ‘(She said) her arms ache from work’ (Ambrazas 2006:371)

1.3.2.5. Nonfinite Verb Forms

Lithuanian makes frequent use of participles, as seen above with the past active participle in compound tenses, and with the oblique mood. In addition, there is a present active participle, as well as the potential (but rarely used) past frequentative and future participles. Active participles agree in number and gender with the subject. Participles are used in compound tenses, but also attributively, as shown in (31), and like adjectives, can be definite, as shown in (32). Non-agreeing participles are not used attributively.

(31) Nešantis obuolius vaikas
carry-PRS.ACT-NOM.M.SG apples:ACC child:NOM.M.SG
‘A child carrying apples’ (Ambrazas 2006: 326)

(32) praėj-us-ie-ji metai
pass.by-PST.AC.-NOM.M.PL-DEF year:NOM.M.PL
‘last year’ (Ambrazas 2006: 327)

Aside from the active (and passive) participles, there are two additional nonfinite verbal forms worth mentioning. These are the gerund (padalyvis) and the “half-participle” (pusdalyvis). The gerund is indeclinable and its subject is marked with dative case, and can be in either present (in –ant) or past tense (in –us). The half-participle agrees in number and gender with a nominative subject, and has only one tense form, with the suffix –dam- followed by adjectival suffixes. The half-participle and present gerund are used to indicate a secondary event which is simultaneous with the primary one. The past gerund (and past active participles without an auxiliary verb) indicate a secondary event that took place before the primary event. The half-
participle (and past active participle) is used when the subjects of both events are the same. The gerund is only used when the subjects of the two events are distinct:

(33) Skait-ant knygą, man patink-a gerti kavos.  
read-PRS.GER book:ACC me:DAT like-PRS.3 drink:INF coffee:GEN  
‘While reading a book, I like to drink coffee.’

(34) Studentams per-skait-us knygą, mokytojas išjungė šviesą.  
students.DAT PRF-read-PST.GER book:ACC teacher turn.off:PST.3 light  
‘After the students read the book, the teacher turned off the light.’

(35) Skaity-damas knygą Jonas klaus-ė muzikos.  
read-HP book:ACC Jonas listen.to-PST.3 music:GEN  
‘While reading the book, Jonas listended to music.’

(36) Per-skait-ę-s knygą Jonas grąžin-o ją draugui.  
‘Having read the book, Jonas returned it to his friend.’

To indicate the primary event precedes the secondary, either the present gerund or half-participle can be used with the preposition prieš ‘before’

(37) Prieš studentams skait-ant knygą, mokytoja įjungė šviesą.  
before students:DAT read-PRS.GER book:ACC teacher turn.on:PST light  
‘Before the students read the book, the teacher turned on the light.’

(38) Prieš skaity-damas knygą, aš visada geriu kavos  
before read-HP book:ACC I always drink:PRS.1.SG coffee:GEN  
‘Before reading a book, I always drink some coffee’

Participles can also be used as subordinate clauses with relative adverbs and pronouns, as equivalent to a simple tense form of the verb. The present active participle can also occur in negative existential sentences with nebūti ‘not be’ + kas ‘who’:

(39) Nėra kas dirb-ąs / kas dirba.  
NEG.is who work-PR.ACT / who work:PRS.3  
‘There isn’t anyone who would work.’

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7 Note that a dative experiencer in the main clause will not bind the subject of the secondary clause:

* Skaitydamas knygą, man patinka gerti kavos
Participles also occur in subordinate clauses of verbs of “sensation, mental activity or saying,” which Ambrazas (2006: 367) identifies as the “completive” function. The active participle is used for subordinate clauses with the same subject, and the gerund for clauses with different subjects. The examples in (40) show the rarely used future active participle and gerund.

(40) a. Tėvas sakė-si gerai gyven-ęs /gyven-ęs /gyven-siąs.
   father:NOM said:REFL well live-PRS.ACT /live-PST.ACT /live-FUT.ACT
   ‘Father said he lived/had lived/would live well.’

      said:1.SG father:ACC well live-PRS.GER /live-PST.GER /live-FUT.GER
      ‘I said father lived/had lived/would live well.’ (Ambrazas 2006: 367)

Note the understood subject of the subordinate clause can be accusative, as in (40b), genitive under negation, as in (41), or nominative, as in (42) with a verb of perception in the infinitive.

(41) Ar ne-matei tévo parein-ant?
   Q NEG-see:PST.2.SG father:GEN go.home-PRS.GER
   ‘Did you see father coming home?’ (Ambrazas 2006:368)

(42) Tolumoje matyti laivas plauk-ant.
    distance:LOC see:INF boat:NOM sailing-PRS.GER
    ‘In the distance you can see a boat sailing.’ (Ambrazas 2006:368)

The nominative is also allowed with perception infinitives in other constructions, as seen in sentences such as (43).

(43) Musų namas jau yra maty-ti.
    Our house:NOM already is see-INF
    ‘You/one can already see our house.’

1.3.3. Case in Nonfinite Clauses

In addition to the subjects of nonfinite clauses being marked with a case other than nominative, the direct objects of infinitives in certain subordinate clauses can be marked in a case other than accusative. Examples are given in (44).

(44) a. Nominative object in subordinate infinitive:
    Man nusibosta laikraščiai skaiytì.
‘It is boring for me to read newspapers.’ (Franks & Lavine 2006: 241)

b. Genitive object in subordinate infinitive:
Išvažiavo kelio taisyti.
leave:PST.3 road:GEN repair:INF
‘They went to repair the road.’ (Ambrazas 2006: 557)

c. Dative object in subordinate infinitive:
Pastatė daržinę šienui sukrauti.
built:PST.3 hayloft hay:DAT keep:INF
‘They built a hayloft to keep hay.’ (Ambrazas 2006: 557)

In all of the examples above, the preferred word order is object-verb, rather than the default verb-object. It is also important to note that these case markings can occur outside of the infinitival clauses as well, as in (45).

month:NOM be.ill:PRS father:NOM
‘Father has been ill (for) a month.’ (Ambrazas 2006: 520)

b. *išiti* vandens
go.out:INF water:GEN
‘go out *for water*’ (Ambrazas 2006: 505)

c. *turėti* pinigų namui
have:INF money:GEN house:DAT
‘have enough money *for a house*’ (Ambrazas 2006: 510)

These case constructions have received recent attention in the literature. See Franks & Lavine (2006) for one analysis, and Arkadiev (to appear) for another approach.

1.3.4. *Interim Conclusion*

This section has served as an short overview of Lithuanian grammar, to acquaint the reader with some of the verbal forms and their functions in the language. As reflected in the preceding sections on nonfinite clauses, there are many nuances in the use of case with particular forms of the Lithuanian verb. In chapters 3 and 4, I will examine atypical case markings in Lithuanian further, with comparison to Russian.
1.4. Theoretical Assumptions

In this dissertation, I am assuming a generative model of syntax, which has as its goals a formal model of representing structural relations between constituents of a clause. The name *generative* refers to the fact that the computational system can generate all grammatical sentences of a language, and only grammatical sentences. One major component of this approach is that the surface form of a sentence may differ significantly from the underlying structure. As such, the goal of this dissertation is to show the underlying structure of the case marking phenomena outlined above in (1)-(4). Crucially, a difference in case marking will be shown to follow from a difference in syntactic structure.

More precisely, I am working within the Principles and Parameters framework, as outlined in Chomsky 1995. One of the underlying assumptions of this framework is that there is a universal grammar, a computational system that is common to all languages, which is inherited, not learned. However, the differences that exist in the world’s languages (e.g. sound systems, vocabularies, etc.) are learned, but guided by universal principles. The goal of the generative linguist is to account for the surface forms of language without violating universal principles.

Within this framework, the primary operation used to generate clause structure is Merge. Merge has two functions: to concatenate two syntactic elements and project a label. To account for elements that are not pronounced in the position of initial Merge, elements can be copied and re-Merged at a higher position, motivated by the need to check features, such as person/number agreement or case, via the operation Agree. Agree holds between two syntactic elements that share a feature: an element higher in the structure (a probe) enters into Agree with a lower syntactic element (a goal) because the latter has a value on the feature that the former needs. At
various points in the derivation, the structures are “Spelled Out” to the two interfaces: PF (phonetic form) is the acoustic-perceptual interface (sound production and perception), and LF (logical form) is the conceptual-intentional interface (meaning). Certain features of a derivation are illegible at one interface, but not the other, and thus Delete before Spell Out.

The analysis that I will eventually adopt to account for the data from Russian and Lithuanian will differ from the traditional approaches. These details will be discussed in the following chapter, in which I lay out the specific theoretical background of this dissertation.

1.5. Organization and Overview

The organization of the dissertation is as follows. In the next chapter I will lay out my theoretical assumptions, including an overview of case theory, argument structure and event structure. I present evidence for three distinct categories of case: structural, based solely on the structural position, lexical, a strong requirement of a lexical item, and semantic, which contributes to the overall meaning of a sentence. I also summarize several approaches to argument structure, including those that take into consideration the event structure of a predicate. I present the framework of Ramchand 2008, which represents the event structure in the syntax, and this approach will be adopted in subsequent chapters.

In chapter 3, I examine the phenomenon of oblique passivization in Russian and Lithuanian. I argue that oblique case marking verbs differ from accusative case marking verbs not in their ability to passivise, but in the inability of the passive participle to be used adjectivally. I conclude, following Richardson 2007, that oblique case marking verbs are inherently atelic, and their event structure bars the formation of an adjectival passive. Thus, I propose that the event structure of oblique case licensing verbs, in the structural representation of Ramchand 2008, accounts for the facts of oblique passivization.
In chapter 4, I discuss accusative-instrumental alternations in Russian and Lithuanian, and show that both languages use accusative case to indicate that an internal object is a Prototypical Patient (in the sense of Dowty 1991). The alternation stems from the fact that the internal argument is not always interpretable as a Proto-Patient, and in these instances it is the means used to perform the action, which accounts for the instrumental case. I propose an event structural analysis here as well, given the connection between Proto-Patient and event typologies. Lithuanian has more instances of this alternation, due to the fact that this language allows accusative case, typically taken to be a structural case, to be used quasi-semantically, as it contributes to the overall meaning of the sentence. In chapter 5, I provide some concluding remarks, and touch on additional puzzling aspects of case licensing in Lithuanian for future research in an event structural approach.
Chapter 2. Theoretical Background

2.0. Introduction

The goal of this chapter is to provide the reader with the necessary theoretical background for the analyses put forth in chapters 3 and 4. The two main areas that will be addressed in this chapter are case theory and argument structure, including event structural approaches to the latter.

Case theory has the goal of accounting for the distribution of case marking on nouns in the sentence, and applies to both abstract case (which I assume is universal, if not always overt) and morphological case (which may not be universal, but is overt). Previously, case theory was primarily concerned only with abstract case, and how it related to the licensing of a noun phrase in a sentence (Chomsky 1981:49, building on ideas put forth by Rouveret & Vergnaud 1980). Subsequent work on languages like Russian (Freidin & Babby 1984; Babby 1986, 1991, 1994) showed that the morphological case marking was also an important aspect of this component of linguistic theory.

Argument structure is the representation of grammatical information of a predicate and its arguments (e.g. subjects and objects), including valency (the number of arguments), argument typology (semantic roles and functions of arguments), and relationships between arguments (e.g. prominence of an argument). These relationships can change through argument structure altering operations, such as passivization and causativization. For languages with rich morphological case systems, such as Russian and Lithuanian, relationships between argument can be expressed through morphological case, leading to a natural connection of case and argument structure. I will examine a variety of approaches to argument structure, including those that claim argument structure is solely a syntactic relationship (e.g. Hale & Keyser 2002), those that claim argument structure is driven by the lexical entry of a predicate (e.g. Levin & Rappaport Hovav 1995,
2005), and a novel approach that proposes that argument structure has its own level of representation (Babby 2009).

Event structure is a means of analyzing predicates in terms of the eventualities represented by a lexical item. An eventuality may be broken down into basic subevents, allowing for a typology of events based on the subevents that a predicate entails (Pustejovsky 1995, Levin & Rappaport Hovav 1999). Event structure relates to argument structure because certain arguments are predicated on particular subevents, rather than the verb as a whole. Components of event structure can be represented as functional heads in the syntax, rather than only in the lexicon, as proposed in Ramchand 2008. As I will show in subsequent chapters, the event structure of a predicate accounts for the morphological case marking in Russian and Lithuanian. Other works have also shown evidence of a connection between event structure and case (Kiparsky 1998, Svenonius 2002, Richardson 2007).

The structure of this chapter is as follows: in section 2.1, I discuss the prevailing views of case theory, and show how the two-way distinction of structural and lexical case is insufficient in light of Russian and Lithuanian data. In section 2.2, I turn to an overview of approaches to argument structure, and in section 2.3, I describe event structural approaches to argument structure in general, and outline the details of Ramchand’s 2008 proposal to represent event structure in the syntax. Her framework is what will be adopted in the subsequent chapters in my analysis of Russian and Lithuanian case marking phenomena.

2.1. Case Theory

In this section, I will focus on case theory as it pertains to the analysis of case marking phenomena in Russian and Lithuanian that will follow in chapters 3 and 4. First, I will give an overview of the development of case theory in generative grammar in section 2.1.1. The
traditional view of case theory is that there are two types of case that can be marked on nominals: structural case, which is based on the position of an argument in the syntactic structure, and inherent case, which is not. In section 2.1.2, I will argue against this two-way distinction in favor of a more finely grained distinction of case. In addition to structural case, I will show that non-structural case is either idiosyncratic and unpredictable (lexical case), and cannot be overridden by another morphological case, or predictable, based on the thematic role assigned to the NP (inherent/semantic case), and can in some instances be overridden by structural case. Finally, in section 2.1.3, I will discuss issues related to the relationship between language-specific morphological case and (presumably) universal abstract case.

2.1.1. History and Development

Modern case theory can be traced back to two disparate sources: on the one hand, Filmore (1968) used the term “case” to describe what may now be considered thematic (semantic) roles, and extensions of this theory have examined the connection of individual morphological cases with their functions and meanings (e.g. Wierzbicka 1980), and grammatical relations such as subject and object. On the other hand, Chomsky (1981: 49) and Rouveret & Vergnaud (1980) originated the notion of abstract case, distinct from any morphological instantiation on the noun, to account for the presence or absence of overt NPs by means of the Case Filter:

(1) **Case Filter** (Chomsky 1986: 74)

For all overt nouns to have abstract case, there must be an element in some structural relation to assign it, although abstract case may not have any morphological or phonological reflexes in a language, as in English. If NP is not governed by an element that could assign abstract case,
then the sentence is ungrammatical. Case, in this sense, was also a means to justify movement: NPs could move (only) to positions where case would be assigned, including object NP-movement in passive derivations and raising.

Under this version of case theory, case assignment was achieved by government: (abstract) nominative case was assigned to the NP governed by Infl, and (abstract) accusative case to the NP governed by V. The category P also assigned “oblique” case. The lexical categories N and A did not assign abstract case, since neither could govern NP in a grammatical sentence without an intervening preposition. Because Infl could assign nominative after movement transformations, abstract case was an aspect of S-structure.

In a traditional view of case theory in generative grammar, all instances of case other than nominative on the subject and accusative on the object are considered inherent case, because these cases are assigned by a particular lexical item that assigns a theta role to the NP, rather than by the structural position of the NP. For instance, in languages with rich morphological case systems, certain verbs and prepositions that mark their complements with a particular case, as a strong lexical requirement. Inherent case also includes the of-insertion in English for N and A that take NP complements (e.g. proud (*of) his son, the destruction (*of) the city), because they assign theta roles to their complements (Chomsky 1995: 113-14). Another key difference between structural and inherent case is that the latter is assigned at D-structure, before any

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1 One potential exception is the assignment of a “default” case.
2 The specifics of the Principles & Parameters framework are not relevant; this section is primarily to show the motivation for case theory in generative grammar.
3 This claim is disproved by languages like Russian, in which an NP may occur after an N or A:

(i) rad vašemu priezdu
glad your:DAT arrival:DAT
‘glad about your arrival’

(ii) fond pomošči detjam
fund help:GEN children:DAT
‘fund to help children’
syntactic operations, because some operations were explained by an NP without case at D-
structure moving to a case position.

One problem for this definition of inherent case is the strong connection between theta-
marking and inherent case: why do some verbs assign inherent (lexical) case to objects
presumably marked with the same theta roles as verbs that don’t? Furthermore, why are some
theta roles consistently marked with the same case in a language (e.g. Benefactor/Recipient
marked with dative case in many languages)? Even Chomsky himself (1981: 171) noted this
problem in the double object construction in English, where we can see the NP receiving the
Recipient theta role marked structurally when adjacent to the verb, or dative (with the
preposition to).

Early work on lexical case phenomena (Freidin & Babby 1984, Freidin & Sprouse 1991)
acknowledged syntactic differences between structural (or configurational case, to use the
authors’ term) and lexical case. Freidin & Babby propose the Principle of Lexical Satisfaction,
which states that all lexical properties must be satisfied, including particular morphological case
requirements of verbs (or prepositions). The difference is shown with numerals in Russian, with
case-splitting for configurational case but not lexical case, as shown in (2)-(3).

(2) Ivan poceloval [pjat’ krasivyx devušek]
    Ivan kissed 5:ACC beautiful:GEN.PL girls:GEN.PL
‘Ivan kissed five beautiful girls

(3) a. Ivan pomog [pjati krasivym devuškam]
    Ivan helped 5:DAT beautiful:DAT.PL girls:DAT.PL
‘Ivan helped five beautiful girls’

b. *Ivan pomog [pjati krasivyx devušek]
    Ivan helped 5:DAT beautiful:GEN.PL girls:GEN-PL

The numeral pjat’ ‘five’ in Russian governs genitive plural when in a structural case position, but
does not when the numeral is in an inherent case position. As Babby (1986) claims, the case of
the quantifier affects the *case percolation* (the ability of the same case to be marked on all constituents of an NP).

Freidin & Sprouse (1991) argue that the case filter in (1) should be replaced with a principle of case licensing, separate from case assignment. Thus all NPs should be in a position where case can be licensed, but actual assignment (of the configurational cases) is a separate phenomenon: lexical case cannot occur if the NP is not in a case-licensing position. As I will discuss below in section 2.1.3, more recent approaches differ on the nature of the relationship between structural and morphological case.

2.1.1.1 Case in the Minimalist Program

The minimalist program (Chomsky 1995, 2000 and 2001) changed the approach to representing the knowledge of language to follow conceptual issues of economy, including “least effort” and “last resort” for operations, in a move toward a minimum set of principles. Many of these broad changes had repercussions for various aspects of syntactic theory. The removal of all levels of representation aside from the interfaces (the perceptual interface PF (phonetic form) and the general cognitive and extralinguistic interface LF (logical form), as well the interface between the computational component and the lexicon) meant principles no longer hold at either D-structure or S-structure. There is no distinction between D- and S-structure. Rather, lexical items Merge fully-formed, with all the features necessary, and structures are built up with checking and agreeing occurring during the derivation. The notion of government is also eliminated from the theory, in favor of the more concrete syntactic relationships between heads and their complements, and heads and their specifiers. The implications of these changes affect case theory primarily in terms of licensing, which I will discuss in section 2.1.2.1.
The distinction between structural and inherent case still holds in a minimalist approach: the lexical case requirement of a verb is an uninterpretable feature that must be checked and deleted by an NP with the correct morphological case. Inherent case is no longer “assigned” before transformations at D-structure (which has been eliminated as a level of representation), but is still differentiated from structural case as theta-related (Chomsky 2000: n31). It is considered (Chomsky 2000: 127-128) a possibility that “quirky case” NPs also have a structural case feature, which would delete the uninterpretable features of v and T (although there may be remote agreement with a more distant nominative element to value the interpretable φ-features of T). See Pesetsky & Torrego 2004 and Rezac 2008 for more on case assignment and φ-features.

2.1.2. **Structural vs. Non-structural Case**

Although some of the earliest versions of case theory recognized a need to distinguish between structural case, which is assigned to particular positions in the syntactic structure, and inherent case, which is not bound to a single structural position, this two-way distinction has also been recognized as incomplete (Babby 1994, Woolford 2006). The strongest evidence comes from languages, like Russian and Lithuanian, that have complex morphological case systems. Assuming that nominative and accusative are structural cases, the two-way distinction of case lumps the oblique cases (genitive, dative, instrumental and locative/prepositional) together as inherent case. In this section, I will show that this case typology misses important generalizations about the contributions morphological case has on the interpretation of a clause, and the fact that not all instances of non-structural case do make such a contribution. First, I will examine structural case, followed by evidence for a purely lexical case, and a different characterization of inherent case, based on the semantic associations of some instances of morphological case. This typology will be examined with supporting evidence from Russian and Lithuanian.
2.1.2.1 Structural Case

The standard assumption for structural case licensing (Chomsky 2000, 2001, Pesetsky & Torrego 2001) is that the functional heads T and v have uninterpretable φ-features (e.g. person, number, gender) which are checked (and subsequently deleted) by the φ-features of nominal elements via Agree. Agree is an operation in which a unvalued feature probe F searches its c-command domain for a goal with a valued goal F. The value of the goal is assigned as the value of the probe, and uninterpretable features delete once valued. If a probe has an EPP feature (essentially a requirement that the head have a specifier), then the goal will move to the specifier of its probe. When a nominal element values uninterpretable φ-features on T or v, it’s unvalued case feature is also valued. Note that Chomsky (2001: 5) claims that unvalued features are uninterpretable to the semantics. This does not entail that case is uninterpretable to morphology or the phonetic form of the derivation, and so nominative and accusative can still be pronounced differently. Nominative case, then, is licensed by virtue of Agree with T, and accusative case is licensed via Agree with v. A sample structure after Agree (and movement to satisfy T’s EPP-feature) is given below in (4). The φ-features of the NPs have been given as numbers. Uninterpretable features have been deleted, shown as crossed out.

(4)
In ergative/absolutive case systems (in which direct objects and intransitive subjects are marked with absolutive case and transitive subjects with ergative case), absolutive is a structural case. Woolford 2006, as will be discussed below, holds that ergative is an inherent case, though others propose that ergative is structural as well (e.g. Babby 1994). In addition to nominative and accusative, some hold that genitive of negation is also a structural case licensed by a functional head NEG (Bailyn 1997, Brown 1999, Harves 2002). Other candidates for structural case include the dative case on subjects of impersonal clauses in Russian and Lithuanian (Franks 1995: 249-56), and genitive of quantification (Babby 1987, Franks 1995: 94-102). Babby 1991 (25-32) analyzes the case of arguments of derived nominals as structural case as well.

An additional feature of structural case that is relevant for the discussion below is that structural case cannot be overridden by other morphological cases. Thus, a diagnostic for structural case is whether the case is overridden in a “case conflict” (Babby 1986). For instance, the Russian distributive pronoun po requires dative case on singular NPs. The same preposition in Lithuanian requires accusative case, shown in (7). As shown in (5), the case required by po overrides the accusative normally licensed on the direct object of est’ ‘eat’, but not the instrumental case of Russian vladet’ ‘know’, shown in (6), or the dative case of Lithuanian atstovauti ‘represent’, shown in (8).

(5) Russian distributive po:
   a. S’’eli jabloko
      eat:PST.3 apple:ACC.SG
      ‘They ate an apple.’
   b. S’’eli po jabloku
      eat:PST.3 po apple:DAT.SG
      ‘They ate an apple each.’

36
(6) Russian distributive *po* with lexical instrumental case:
   a. Studenty vladejut inostrannym jazykom.
      students know foreign:INST language:INST
      ‘The students know a foreign language.’
   b. *Studenty vladejut po inostrannomu jazyku.
      students know po foreign:DAT language:DAT
   c. *Studenty vladejut po inostrannym jazykom.
      students know po foreign:INST language:INST (Babby 1994: 643)

(7) Lithuanian distributive *po*:
   a. Suvalgė obuolį.
      eat:PST.3 apple:ACC.SG
      ‘(S)he/They ate an apple.’
   b. Suvalgė po obuolį.
      eat:PST.3 each apple:ACC.SG
      ‘They ate an apple each.’

(8) Lithuanian distributive *po* with lexical dative case:
   a. Advokatai atstovavo darbininkui.
      lawyers represented worker:DAT
      ‘The lawyers represented a client.’
   b. *Advokatai atstovavo po darbininką.
      lawyers represented po worker:ACC
   c. *Advokatai atstovavo po darbininkui.
      lawyers represented po worker:DAT

An additional diagnostic is the genitive of negation, which is optional in Russian but required in Lithuanian. Only accusative can be overridden by genitive of negation, as shown in (9)-(10).

(9) Lithuanian genitive of negation:
   a. Jis megsta alų.
      he likes beer:ACC
      ‘He likes beer.’
   b. Jis ne-megsta alaus/*alų.
      he NEG-likes beer:GEN/*ACC
      ‘He doesn’t like beer.’
Lithuanian genitive of negation with lexical case:

a. Vaikas padeda mamai.
   child helps mother:DAT
   ‘The child helps the mother.’

b. Vaikas ne-padeda mamai/*mamo.
   child NEG-helps mother:DAT /*GEN
   ‘The child does not help the mother.’

A third diagnostic is the case of quantified NPs in Russian. In Russian, the numbers 2-4 require
genitive singular case on the NP, while numbers 5-20 (as well as other multiples of 10 and
numerals higher than 20 ending in 5-9) require genitive plural. However, this is only a
requirement if the numeral is nominative or accusative, as shown in (11a)-(11b). The preposition
s ‘with’ in (11c) requires instrumental case, which is marked on both the numeral and the noun.

(11) a. Pjat’ knig ležat na stole.
    5:NOM books:GEN lie on table.
    ‘Five books are lying on the table.’

b. Ja kupil pjat’ knig.
    I bought 5:ACC books:GEN
    ‘I bought five books.’

c. Ja prišel s pjat’ju knigami/*knig.
    I arrived with 5:INST books:INST/*GEN
    ‘I arrived with five books.’

Such diagnostics are helpful in distinguishing between structural and non-structural case, as will
be relevant again in chapter 3. Now I turn to the clearest instances of non-structural case, the
idiosyncratic lexical case.

2.1.2.2 Lexical Case

In languages with rich morphological case systems, such as Russian, Lithuanian and Icelandic,
there are verbs which require a case other than accusative on the internal argument, as shown for
Russian in (12), or nominative on their external argument, as shown for Icelandic in (13).
a. Oni dostigli celi.
   they:NOM achieved goal:GEN
   ‘They achieved the goal.’

b. Doć pomogla materi.
   daughter:NOM helped mother:DAT
   ‘The daughter helped her mother.’

c. Studenty vladejut anglijskom jazykom.
   students:NOM control English:INST language:INST
   ‘The students know English.’

(13) a. Henni leiddust strákarnir.
    her:DAT bored boys.the:NOM
    ‘She found the boys boring.’

b. Hena vantaði vinnu.
    her:ACC lacked job:ACC
    ‘She lacked/needed a job.’

c. Hennar var saknað.
    her:GEN was missed
    ‘She was missed (by somebody).’ (Sigurðsson 2002: 692)

Slavic languages such as Russian (and other languages, such as Lithuanian) can also have oblique-case marked subjects, though only dative. This occurs with impersonal predicates, as in (14a), and nonfinite clauses, as in (14b).

(14) a. Mne legko govorit’ po-russki.
    me:DAT easy speak:INF in-Russian
    ‘It is easy for me to speak Russian.’

b. Mne uxodit’.
    me:DAT leave:INF
    ‘I have to leave.’ (Franks 1995: 250)

Sigurðsson 2002 discusses the differences between Icelandic quirky subjects and Russian dative subjects in (14). Aside from the syntactic differences (e.g. raising, secondary predication), and ignoring whether the dative arguments in Russian are truly external arguments or not, the dative case is predictable in Russian, and unpredictable for Icelandic. Additionally, Woolford 2006
claims that dative case on “subjects” of Russian nonfinite clauses is a structural case\(^4\) due to the lack of nominative objects\(^5\) in such clauses, which could be licensed by a non-finite T (Franks 1995: 249-59). “Quirky” dative subjects in Icelandic, however, are instances of lexical case, because they are idiosyncratic. The dative case in impersonal clauses, as in (14a), could be a lexical requirement of the impersonal predicate. Alternatively, as will be discussed below, the dative could be due to the licensing of an experiencer thematic role to this argument.

There have been attempts to show that seemingly idiosyncratic case markings are actually systematic, e.g. Wierzbicka 1980 for instrumental in Russian, and Maling 2002 for dative in Icelandic. However, there is not a one-to-one mapping of meaning and case, there is some unpredictability and idiosyncrasy. Therefore, we must postulate that for certain verbs, there is a case requirement in the lexical entry, which is why this is called lexical case (historically, *quirky* case). It is possible, as Babby 1991 indicates, for any lexical category (V, P, N or A) to license lexical case. Lexical case on the internal arguments of a verb was shown above in (12); lexical case with other categories is shown in (15), with examples adapted from Babby 1991 (p. 8).

\[(15)\]
\[
a. \text{dovolen rabotoj} \\
\quad \text{satisfied work:INST} \\
\quad \text{‘satisfied with the work’} \\
b. \text{torgovlja lud’mi} \\
\quad \text{trade people:INST} \\
\quad \text{‘human trafficking’} \\
c. \text{smolokom} \\
\quad \text{with milk:INST} \\
\quad \text{‘with milk’}
\]

\(^4\) Babby 2009 argues that this is a lexical case requirement of the infinitival suffix, although its regularity indicates it is not a true lexical case as defined by Richardson 2007 or Woolford 2006, which I follow here.

\(^5\) Evidence from Old Russian and North Russian dialects indicates otherwise, however. See Lavine 2000 for examples.
In the analysis of case theory outlined in Babby 1991, lexical case is a syntactic case, in the sense that it does not contribute to the interpretation of the sentence. The diagnostic for lexical case is that it cannot be overridden in a case conflict, as discussed in the preceding section, and shown in examples (5)-(11). Additionally, lexical case is preserved in nominalizations of verbs, as seen above in (15) and below in (16).

(16) a. Deti podražajut roditeljam.
    children:NOM imitate parents:DAT
    ‘The children imitate their parents.’

b. podražanie detej roditeljam
    imitation children:GEN parents:DAT
    ‘the children’s imitation of their parents’ (Babby 1991: 32)

Because lexical case is a property of a particular lexical item, it is not licensed by a functional head, unlike structural case. I will discuss below in section 2.1.3 whether nominals that are marked with lexical case are also marked with structural case, or satisfy the checking requirements of the functional heads without case licensing.

Now I turn to another type of case: inherent case, as described in Woolford (2006) and Richardson (2007), which I will conclude is semantic case (in the sense of Freidin & Babby 1984), based on its association with particular theta roles and its contribution to the interpretation of the clause.

2.1.2.3 Inherent and Semantic Case

As discussed in section 2.1.1, it has long been understood that not all case is purely structural in terms of assignment/licensing. However, there is evidence that not all instances of non-structural case have the same syntactic behavior. Woolford (2006) notes that there are some regularities for particular non-structural cases, namely ergative case on external arguments and dative case on goal arguments, when compared to irregular lexical case found on themes and other arguments.
(e.g. experiencers, instruments). She shows that ergative case and dative case (on goals) consistently show behavior of non-structural case, such as case preservation under A-movement, as in passives and raising. An example of passive with dative case preservation on a goal in Icelandic is shown in (17)-(18), and an example of raising with ergative case preservation on an external argument in Tongan is shown in (19)-(20).

(17) Deir skiluðu Mariu bókinni. 
they returned Mary:DAT book.the:DAT
‘They returned the book to Mary.’ (Jónsson 1996: 137)

(18) Mariu var skilað þessari bók. 
Mary:DAT was returned this book:DAT
(Jónsson 1996: 137)

(19) ‘E lava [‘o ako ‘e Pita ‘a e lea faka-Tonga]. 
AUX possible/can COMP learn ERG Peter ABS the language Tongan
‘Peter can learn Tongan.’ (Hendrick 2004: (52))

(20) ‘E lava ‘e Pita [‘o ako ‘a e lea faka-Tonga]. 
AUX possible/can ERG Peter COMP learn ABS the language Tongan
‘Peter can learn Tongan.’ (Hendrick 2004: (53))

Based on the differences in theta-relatedness and regularity, Woolford distinguishes between two types of nonstructural case as inherent and lexical. She claims that dative goals and ergative external arguments are not theta-related, because dative is not only the case of goals, as seen above in (17) with dative case on the theme of skila ‘return’, nor are all goal arguments marked with dative case, as in (21).

(21) Ég skilaði peningunum til hennar. 
I returned money:DAT to her:GEN
(Zaenen, Maling, and Thráinsson 1985: (43a))

Ergative case is not theta-related because, while it is marked on an agents, non-agents can occur as external arguments, e.g. experiencers and instruments, as in (22) (Woolford 2006: 124).

(22) a. Michael angered me.
b. The key unlocked the door.
Woolford concludes that theta-relatedness is a poor diagnostic in this strict interpretation. Below, I propose that theta-relatedness is in fact a diagnostic for semantic case, but I acknowledge that the relationship between morphological case and thematic role is not isomorphic.

The only diagnostic that Woolford has to distinguish purely lexical case from the inherent case of dative goals and ergative agents is the regularity of assignment. It is not entirely clear how this is different from theta-relatedness as a diagnostic, although she highlights that the regularity is really a better test for lexical case, because it is highly irregular (particularly crosslinguistically). As I showed in the preceding section, lexical case is indeed unpredictable and idiosyncratic.

Woolford proposes that inherent case, like all case, is licensed structurally. That is, a certain morphological case is licensed in a particular position in the syntactic structure. However, she proposes that inherent case is licensed on the specifier of vP, as shown in (23). Ergative and dative are licensed by different v heads: v_A licenses external arguments, while v_G licenses goals (see McGinnis 2001 for details on this analysis of goals). Under Woolford’s proposal, accusative is licensed by V, rather than v, as shown in the previous section.

(23)

(Woolford 2006: 116)
Another approach to licensing this kind of non-structural case is presented in Pylkkänen 2008 and Cuervo 2003. These proposals argue that dative goals are licensed in an applicative phrase, and check their dative case feature against a functional applicative head. An applicative is a construction in which an indirect object is added to a verb’s argument structure, often with a verbal affix. An example from Chichewa is shown in (24) (sp stands for subject agreement prefix).

   zebras SP-PST-hand-ASP trap to fox
   ‘The zebras handed the trap to the fox.’

b. Mbidzi zi-na-perek-er-a nkhandwa msampha.
   zebras SP-PST-hand-APPL-ASP fox trap
   ‘The zebras handed the fox the trap.’ (Baker 1988: 229)

Richardson (2007) provides support for the applicative analysis of dative goals, showing that indirect objects cannot license depictive secondary predicates, which is not possible for applicatives, as argued in Pylkkänen (2008), because of the additional structure of the applicative phrase. Direct objects, on the other hand, can license depictive secondary predicates, because there is no structure intervening. Relevant examples are given in (25) for English and in (26) for Russian.

(25) a. I ate the meat raw.

b. *I gave John the book drunk.
   (Richardson 2007: 37)

(26) a. Ja s’ela mjaso syrym.
   I ate meat:ACC raw:INST.
   ‘I ate the meat raw.’

b. *Ja dala Ivan knigu pjanym.
   I gave Ivan:DAT book:ACC drunk:INST
   (Richardson 2007: 37)

Pylkkänen (2008) differentiates between high and low applicatives: high applicatives have VP as a complement, while low applicatives are below VP and have an NP complement. Low
applicatives are responsible for introducing indirect arguments, as in (24). The structure is shown in (27). Note that VoiceP is equivalent to vP.

(27) VoiceP
    |    
    |    
    |    
EA    VP
    |    
    |    
    |    
Voice V ApplP
    |    
    |    
DP_{DAT} Appl DP_{ACC}

(Pylkkänen 2008: 48)

Richardson (2007), following Cuervo (2003) for Spanish, proposes that the dative case on indirect objects in Russian is licensed by an applicative head. The dative case on Russian experiencers, as in (28a), is also an instance of inherent case: it is predictable and linked to a theta role. We can see that dative case, whether on an indirect object or an experiencer, is not structural case because it cannot be overridden in case conflicts, as in (28b) and (28c). Additionally, dative experiencers do not license secondary predicates, which is evidence for an applicative head to introduce the argument, as in (28d).

(28) a. Mne nравится эта книга.
    me:DAT like:3.SG this:NOM book:NOM
    ‘I like this book.’

b. *Студентов не нравятся эти книги.
    students:GEN NEG like:3.PL these:NOM books:NOM
    Intended: ‘Students don’t like these books.’

c. Пяти студентам/*студентов не нравятся эти книги.
    5:DAT students:DAT/*gen NEG like:3.PL these:NOM books:NOM
    ‘Five students don’t like these books.’

d. *Мне всё надоедает трезвым.
    me:DAT everything bore:3.SG sober:INST
    Intended: ‘Everything bores me (when I’m) sober.’ (Richardson 2007: 39-40)
Other potential instances of inherent case include dative indirect objects with verbs that do not require their direct internal object to be overt. This is seen in verbs that require dative on a goal/beneficiary but can also be expressed as a ditransitive verb with a noun expressing the root of the verb (Pereltsvaig 2001: 228-9). For example, the Russian verb *doverjat* ‘trust’ requires dative on its sole internal argument, but can also be expressed as the ditransitive *okazat* ‘render trust’. This can be seen in the equivalence of the sentences in (29).

(29) a. Krasnyj Krest pomogaet postradavšim ot zemletrjasenija.
    red cross:NOM helps victims:DAT of earthquake:GEN
    ‘The Red Cross helps earthquake victims.’

    b. Krasnyj Krest okazyvaet pomoš’ postradavšim ot zemletrjasenija.
    red cross:NOM renders help:ACC victims:DAT of earthquake:GEN
    ‘The Red Cross renders help to earthquake victims.’ (Pereltsvaig 2001: 229)

Despite these claims for a quasi-structural account of dative, I hold that theta-related inherent case is an instance of semantic case. Following Babby 1991, there are two kinds of semantic case: that which occurs on arguments, and that which occurs on adjuncts. While it is possible that only adverbal NPs truly can be considered to contribute to the interpretation of the clause (my diagnostic for semantic case), there is evidence from languages like Russian and Lithuanian that the theta role and the morphological case have some relationship. After all, there are certain meanings that are associated with the various oblique cases, even if they are disparate (e.g. Wierzbicka 1980 for instrumental in Russian).

It is important to distinguish between lexical and semantic case on internal arguments. Lexical case, as described in the preceding section, is idiosyncratic and must be specified in the lexical entry of the verb (or adjective, preposition, etc.) that requires the particular morphological case. Semantic case, on the other hand, is regular, and predictable from the thematic role assigned to the argument by the verb. An additional piece of evidence, which I will touch on in
chapter 3, is that lexical case can be licensed in the regular object position in lieu of accusative (allowing passivization with promotion of the internal argument to the subject position), while semantic case is not licensed in this position. Additionally, lexical case cannot be overridden in case conflicts. Semantic case, however, can be overridden in some instances, but only by a structural case, and must be motivated by the semantic interpretation of the argument. This will be shown in chapter 4, and discussed briefly below.

Freidin & Babby 1984 distinguish semantic case as distinct from lexical and “configurational” (structural) case. Semantic case, they claim, is “determined neither by syntactic configuration nor lexical properties of case assigning predicates and which, unlike syntactic case marking, contributes to semantic interpretation” (Freidin & Babby 1984: 72). They identify several examples of semantic case, including instrumental in lieu of nominative on the causer argument in adversity impersonal sentences, as in (30):

(30)  
\[ \text{a. Včera Mašu sbilo mašinoj.} \]  
\[ \text{yesterday Masha:ACC knock-down car:INST} \]  
‘A car hit Masha yesterday.’

\[ \text{b. Včera Mašu sbila mašina.} \]  
\[ \text{yesterday Masha:ACC knock-down car:NOM} \]  
‘A car hit Masha yesterday.’ (Freidin & Babby 1984: 78)

The instrumental rather than nominative on the NP representing the causer of the event gives the “adversity” semantics to the sentence. Other instances include partitive genitive, genitive of negation, and dative experiencers. The concept of semantic case is further developed in Babby 1986, such as the adverbial functions of instrumental, shown in (31):

(31)  
\[ \text{a. Zimoj v Moskve xolodno.} \]  
\[ \text{winter:INST in Moscow cold} \]  
‘It is cold in Moscow \textit{during the winter}.’
b. Celymi dnjami my exali lesom.
   whole:INST days:INST we travelled forest:INST
   ‘For entire days we travelled through the forest.’

c. On staratel’no vystrugal ee nožom
   he carefully carved it:ACC knife:INST
   ‘He carefully carved it with a knife.’

d. Moj otec rabotaet prepodavatelem.
   my father works teacher:INST
   ‘My father works as a teacher.’ (Babby 1994: 647)

Additional evidence that inherent/semantic case is motivated by the thematic role is seen in the case marking of non-direct internal arguments, as in (32).

(32) a. Ivan napolnil jamu (vodoj).
    Ivan:NOM filled pit:ACC water:INST
    ‘Ivan filled the pit (with water).’

b. Jama napolnilas’ (vodoj).
   pit:NOM filled-REFL water:INST
   ‘The pit filled (with water).’

c. Voda napolnila jamu.
   water:NOM filled pit:ACC
   ‘Water filled the pit.’ (adapted from Babby 1998)

The alternations in (32) are similar to spray/load alternations, in which either of two internal arguments can be the direct object, and the other argument is expressed as an oblique case or prepositional phrase, as exemplified in (33).

(33) a. We loaded the hay onto the cart.
    b. We loaded the cart with hay.

According to Dowty (1991), the argument that undergoes a change of state or location becomes the direct internal argument. In terms of case, this argument would be marked with the structural accusative case. The other argument, then, is marked with a case based on its thematic role (or occurs in a prepositional phrase headed by a preposition determined by the interpretation of the

---

6 The proposals of Dowty (1991) will be discussed more fully in chapter 4.
argument). A similar alternation is occurring in (32), although not with the internal argument position, but external argument position. If there is an agent, it is the external argument, as in (32a). The internal argument can be expressed in the subject position to yield a derived unaccusative, as in (32b). The indirect argument, the means of performing the action in the given example, can also become the external argument if it is also interpreted as the causer, as in (32c). Thus, the morphological instantiation of semantic case is linked to the interpretation of the argument, but if the argument is interpreted as the external or direct internal argument, then it can be marked with structural case.

In addition to case patterns that involve the interpretation of the sentence, there are also case alternations based on semantic features of the internal argument. Richardson 2007 highlights a few such instances in the Slavic languages. In East Slavic languages, some verbs alternate between accusative and genitive on the direct object depending on some semantic feature of the object, e.g. animacy, abstractness, definiteness.

(34) Ja xoču mira.
I:NOM want peace:GEN
‘I want peace.’

(35) Ja xoču bulku.
I:NOM want roll:ACC
‘I want a bread roll.’ (Richardson 2007: 45)

She also analyzes accusative-instrumental alternations in Slavic as instances of semantic case, as the choice of case can depend on the object⁷:

(36) Ja dvigal loktjami v boka.
I:NOM moved elbows:INST in sides
‘I moved my elbows into people’s sides.’

⁷ In chapter 4, I reject the notion that the accusative-instrumental case alternation in verbs of moving a body part are instances of differential object marking.
(37) Kto-to stal pljasat’, dvigali s šumom mebel.’
   ‘Some started to dance, they moved the furniture noisily.’ (Timberlake 2003: 335)
   
   Regarding the licensing of semantic case, it was shown above that, at least for dative arguments, an applicative structure may be responsible for licensing case. Such a structure may also account for the fact that these dative arguments do not alternate with structural case. The instances of semantic case that do alternate may be licensed by virtue of theta-role assignment. This sort of assignment cannot be a strong lexical requirement, as was suggested above for the licensing of lexical case, because it is not always licensed (as shown in (32c) above). However, some means of licensing case based on the theta role is required to account for adverbial semantic case, as exemplified in (31a)-(31d) above.
   
   From the perspective of traditional grammars, in which each morphological case is given a list of meanings associated with it, the notion of semantic case might well apply to all instances of structural case as well. This raises the question as to why nominative case is not associated with agenthood or causativity, and why accusative case is not associated with affectedness. Arguably Richardson’s own attempt to link accusative case with aspect has a hint of association between morphological case and meaning for what has long been considered structural, and I will explore this notion in my analysis of accusative-instrumental case alternations in chapter 4.

2.1.3. Morphological vs. Abstract Case
   
   The notion of abstract case is generally assumed to be a universal, even in languages that do not have overt morphological case marking. Typically, abstract case is limited to structural case. This raises the question of licensing for lexical and semantic case, and whether they bear some abstract case feature as well.
There are two possible approaches: either morphological case is spelled out after abstract features have been checked, or the licensing of a non-structural case checks the case feature of the NP, and abstract case is not assigned. The former view is proposed in McFadden 2004. He claims that abstract case is a syntactic phenomenon while morphological case is restricted to morphological spell out (and thus the PF). Sigurðsson 2007 takes an even more extreme position: syntax has no case features whatsoever.

Pesetsky & Torrego (2011) argue that both possibilities exist in various languages. In Icelandic, they claim, “quirky” case (lexical case, under my definition) does not license a nominal if it is not in a case-marking position, as in the complement of try, shown in (38).

(38) a. Mér býður við setningafræði.  
me.DAT is.nauseated at syntax

b. *Hún reyndist mér bjóða við setningafræði.  
he tried me.DAT to.be.nauseated at syntax

For Russian, on the other hand, the presence of a lexical case marking is enough to license a nominal. Their argument is based on the fact that lexical case is not retained in Russian passives, shown in (39)-(40), while it is retained in Icelandic passives, shown in (41)-(42).

(39) a. Ivan pomog studentam.  
Ivan helped students:DAT.PL

b. Maša upravljaet zavodom  
Masha manage factory:INST.SG

(40) a. *Bylo pomoženo studentam.  
was helped students:DAT.PL

b. *Bylo upravleno zavodom.  
was managed factory:INST.SG

(41) a. Ðeir luku kirkjunni.  
they finished the.church:DAT
b. Við víťjuðum Olafs.
we visited Olaf GEN

(42) a. Kirkjunni var lokið (af Jóni).
the-church DAT was finished (by John)

   b. Olafs var víťjað (af Jóni).
Olaf GEN was visited (by John)

   (Pesetsky & Torrego 2011)

Note, however, that (40b) is acceptable in the imperfective passive with the suffix –sja, shown in
(43), as will be discussed in more detail in chapter 3.

(43) Zavod upravljaetsja (Mašej).
   factory NOM manage-sja Masha INST
   ‘The factory is managed (by Masha).’

The agreeing oblique passive does not contradict the claims of Pesetsky & Torrego 2011. The
passive structure must block the assignment of the lexical case in (43). However, the
ungrammaticality of impersonal passives in (40) show that the lexical case-marked NPs cannot
become subjects, which would normally occur under passives, a movement operation that is
driven by the NP agreeing with T to check its features, as discussed above in 2.1.2.1.

Following Pesetsky & Torrego, I conclude that for Russian and Lithuanian, the presence
of a non-structural case satisfies the NPs case feature. From this conclusion, it follows that non-
structural case must be active in the syntax.

2.1.4. Interim Conclusions

In this section, I have given an overview of case theory, from its earliest inceptions as a means to
account for the distribution of noun phrases in a sentence, to the most recent views calling into
question the parity of morphological and abstract case. Throughout this dissertation, I assume
that morphological case is an instantiation of abstract case, and that different morphological

8 An alternative approach is that an NP can have more than one case licensed, but only one can be overtly
marked on the nominal. Such an analysis for Lithuanian is given in Arkadiev (to appear).
cases, particularly oblique cases, are indications of a difference in abstract case. Additionally, I have provided evidence for three distinct kinds abstract case: structural case, determined solely by the structural position of the NP, lexical case, a strong requirement of lexical items, and semantic case, which contributes to the overall interpretation of a sentence and is determined by the theta role assigned to the NP.

In the next section, I examine different approaches to argument structure: one that assumes an autonomous level of argument structure, and one that assumes all argument structure relations are determined at the syntactic level.

2.2. Argument Structure

The main goal of a theory of argument structure is to account for the structure of the arguments of a predicate, including valency (the number of arguments), prominence relations, linear and hierarchical order, presence or absence of arguments, and their syntactic realization (e.g. NP vs. PP). Argument structure inherently involves several components of the grammar: morphology, the lexicon, and syntax. Because there is not a unified approach to argument structure, in this section I will examine varying approaches to argument structure and argument realization: on the one hand, theories of argument structure as a syntactic representation of lexical semantics, and on the other, theories of argument structure as separate from syntax. Primarily, I will focus on how the various approaches account for the argument structure alternations and their inconsistencies, such as the transitivity alternation, given below in (44) and (45).

(44) Transitive:
   a. The boy broke the window with a bat.
   b. The boy hit the window with a bat.

(45) Intransitive:
   a. The window broke.
   b. *The window hit.

(Levin and Rappaport Hovav 2005: 1)
2.2.1. Syntactic Argument Structure

There are many different syntactic approaches to argument structure (Williams 1981, Grimshaw 1990, Hale & Keyser 1993, 2002, Levin & Rappaport Hovav 1995), but they all share a common thread: argument structure involves the syntactic configuration of the lexical semantics of a predicate, which includes information about the valency, prominence, and morphosyntactic realization of arguments. The earliest works (e.g. Williams 1981) proposed that the argument structure information was fully contained in the predicate’s lexical entry. This information was proposed to be the set of arguments, listed as thematic roles, licensed by a predicate. Given this assumption, theories of argument structure were primarily concerned with the mapping of the thematic roles to the syntactic structure, and hierarchies of thematic roles.

Different thematic hierarchies have been proposed over the past several decades, most notably Baker’s (1988) *Uniformity of Theta Assignment Hypothesis* (henceforth, UTAH) and Grimshaw (1990). The goal of a thematic hierarchy is to organize the thematic roles in such a way that the most prominent argument maps to the highest syntactic position (usually, the subject). The hierarchy\(^9\) from Grimshaw (1990: 8) is given in (46):

(46) \((\text{Agent (Experiencer (Goal/Source/Location (Theme))}))\)

The proposal in Baker (1988) is that the thematic hierarchy links uniformly to the syntactic structure, as in (47):

(47) Uniformity of Theta Assignment Hypothesis:

Identical thematic relationships between items are represented by identical structural relationships between those items at the level of D-structure.

\[(\text{Baker 1988: 46})\]

\(^9\) Grimshaw (1991) does not propose that there is uniform mapping from argument structure to the syntax. As she notes, there are arguments which do not project, but are semantically active, e.g. the optional agent in passives, which she calls an *argument-adjunct*. 

54
One correlate of a thematic hierarchy is that prominence relations cannot be changed unless there is a syntactic operation, or the introduction of an additional argument (Grimshaw 1990: 5). This can account for why the intransitive version of break in (45a) has the theme The window as its subject, and why the same argument occurs as the internal argument in the transitive version of the sentence in (44a), but a thematic hierarchy alone does not explain why the same alternation cannot occur with hit.

A different approach to syntactic mapping of argument structure is proposed by Hale & Keyser (1993, 2002). Their insights are driven by conflation verbs, in which a nominal or adjectival root functions as a verb, shown in (48):

(48) a. Sue put the books on the shelf.
    b. Sue shelved the books.

In their proposal, transitivity alternations are due to a difference in syntactic structure. Monadic verbs, such as break and cough, have markedly different structures, which accounts for the ability of break but not cough to be used transitively, as shown in (49)-(50).

(49) Intransitive:
    a. The pot broke.
    b. The engine coughed.

(50) Transitive:
    a. I broke the pot.
    b. *I coughed the engine.

(Hale & Keyser 2002: 1)

The difference in break and cough comes from the requirements of the verbal roots (R) as they merge with verbal hosts (V). The root break requires a verbal projection with a specifier, as in (51a), while the root cough is incompatible with a specifier, as in (51b).
The verb *break* is made transitive by the merger of the structure in (51a) with a verbal “nucleus”, which licenses accusative case on the specifier of the root.

Only structures with specifiers can merge with a verbal nucleus (V₁), which means that *cough* cannot be transitive. As the structure in (53) shows, there is no internal argument.

In addition to verbal roots merging with the verbal hosts, other categories (N, A, and P) can merge with a verbal host. For instance, the verb *shelve* in (48b) above has the structure in (54).
The nominal root *shelf* merges with a null P, due to the semantics of the counterpart in (48a) with *put*.

(54) 

```
                     V
                     |     
                     V     P
                  /       
                DP     P      
             /         
           the books
```

As shown in this structure, P roots require a specifier, which accounts for the ungrammaticality of *The books shelved.*

A final argument structure alternation that Hale & Keyser discuss is similar to the one shown above in (44)-(45). Their structural analysis, outlined above, accounts for the causative-inchoative transitivity alternation of verbs like *break*, but what about transitive verbs that do not participate in this alternation, such as *hit*? They give an analysis of a similar alternation, exemplified in (55)-(58).

(55) a. The pigs splashed mud on the wall.
    b. Mud splashed on the wall (when the pigs ran past).

(56) a. The pigs got mud on the wall.
    b. Mud got on the wall.

(57) a. We put spurs on Leecil.
    b. *Spurs put on Leecil.

(58) a. Leecil smeared saddle soap on my chaps.
    b. *Saddle soap smeared on my chaps.

(Hale & Keyser 2002: 31)
Unlike the conflation verbs with a null P like *shelve* shown above, which project a specifier in P, they are forced to claim that this is not the case for the overt prepositions in (55)-(56). Rather, the specifier requirement is satisfied by the V, as shown in (59).

(59)

\[
\begin{array}{c}
\text{V} \\
\text{DP} \\
\text{mud} \\
\text{V} \\
\text{splash} \\
\text{P} \\
\text{on} \\
\text{P} \\
\text{DP} \\
\text{on the wall}
\end{array}
\]

(Hale & Keyser 2002: 32)

This is similar to their analysis for deadjectival verbs, such as *clear*: without the outer verb, they have an (unaccusative) intransitive verbal projection, as in (60).

(60)

\[
\begin{array}{c}
\text{V} \\
\text{DP} \\
\text{the screen} \\
\text{V} \\
\text{clear} \\
\text{A}
\end{array}
\]

(Hale & Keyser 2002: 31)

There still remains a problem in accounting for (57)-(58). Hale & Keyser claim that verbs like *put* and *smear* have the typical structure of P, with the specifier in P, as shown in (61):
There needs to be a mechanism to determine which verbs merge with the maximal projection of P (which includes a specifier), and which verbs do not. Their solution lies in the lexical semantic differences of the verbs *splash* and *smear*. Verbs like *splash*, along with *drip* and *spill*, denote the motion of the entity in the specifier of P, and are called *patient-manner* verbs. Verbs like *smear*, *daub*, and *stamp*, on the other hand, describe the manner in which the agent acts on the internal argument, and are thus called *agent-manner* verbs. While they are able to account for the differences in (55)-(58), the analysis of this transitivity alternation deviates from the strict syntactic representation of argument structure, and relies on lexical semantics.

Levin & Rappaport Hovav (1995) propose an account for such transitivity alternations which relies heavily on the lexical semantics of verbs. One such example is the difference between unaccusative and unergative verbs. Both types of verbs have a single argument, but the nature of this argument differs. The sole argument of unaccusative verbs is a derived subject, in the sense that it is an internal argument at some point in the derivation, or does not bear an external theta role, such as agent. The sole argument of unergative verbs is an external argument, generally an agent. Evidence for a difference in structure is based on syntactic patterns common to passives and unaccusatives (e.g. resultative phrases), and others common to transitive and unergative verbs (e.g. –er nominalization).
Levin & Rappaport Hovav (1995) argue that unaccusative and unergative verbs not only have different syntactic structures, but the semantic differences between unaccusative and unergative predicates accounts for the structural differences. They examine one particular diagnostic of unaccusativity in order to account for “variable behavior verbs” (verbs which sometimes appear to be unaccusative, and sometimes appear to be unergative, depending on the diagnostic test used). The diagnostic Levin & Rappaport Hovav 1995 highlight is whether an agentive verb of motion can take an objectless resultative, as in (62), or a reflexive-object resultative, as in (63):

(62) Objectless resultative:
   a. Jump clear of the vehicle!
   b. *Don’t expect to swim sober.

(63) Reflexive-object resultative:
   a. *Jump yourself clear of the vehicle!
   b. Don’t expect to swim yourself sober.

(Levin & Rappaport Hovav 1995: 7)

They show that agentive verbs of motion are not truly variable behavior verbs. The verbs which take the objectless resultative are consistently unaccusative, and those verbs which take the reflexive resultative are consistently unergative. However, the lexical semantics, including information about the event structure (discussed below in section 2.3) also affect diagnostics. Levin & Rappaport Hovav 1995 conclude that the syntactic differences of unaccusative and unergative verbs is semantically motivated, and such an analysis can be extended to other alternations in argument structure.

In this approach to argument structure, Levin & Rappaport Hovav assume that each verb has a *lexical semantic representation*, which encodes the parts of meaning that are relevant to the syntax, and a *lexical syntactic representation*, which encodes the “argument-taking properties” of the verb (Levin & Rappaport Hovav 1995: 20-21). Rather than giving the lexical semantic
representation as a list of semantic roles, they assume that the relevant information comes from the decomposition of a predicate into primitives, such as *cause* and *become*. The bulk of their proposal deals with linking the two levels of representation. The specific linking details are not relevant here, but I will summarize their approach to transitivity alternations.

Recall from above that the puzzle of transitive alternations is that some verbs allow a causative-inchoative alternation, while others do not. The examples from (44)-(45) are repeated here as (64)-(65).

(64) Transitive:
   a. The boy broke the window with a bat.
   b. The boy hit the window with a bat.

(65) Intransitive:
   a. The window broke.
   b. *The window hit.

(Levin & Rappaport Hovav 2005: 1)

Levin & Rappaport Hovav 1995 propose that transitive verbs like *break* and *hit* are *externally caused*, while verbs that are always intransitive, such as *glow* and *sparkle*, are *internally caused*\(^{10}\). The fact that *hit* cannot be used intransitively is due to the fact that certain verbs must have their external cause specified. Additional examples illustrate this:

(66) a. The baker cut the bread.
    b. *The bread cut.

(67) a. The nurse sterilized the instruments.
    b. *The instruments sterilized.

(Levin & Rappaport Hovav 1995: 95)

Such a stipulation that certain verbs do not participate in the transitivity alternation is unsatisfying, and highlights issues of splitting argument structure between lexical semantics and

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\(^{10}\) This distinction will be revisited in more detail in chapter 4.
syntactic structure. In later work (Levin & Rappaport Hovav 2005), they propose an event structural analysis for such alternations, which I discuss below in section 2.3.1.

Lastly, I will present Babby’s (2009) approach to argument structure, which argues for an autonomous component of grammar, separate from both the lexicon and the syntax, in which all operations that alter a predicate’s basic argument structure occur. First, I briefly comment on what information should be in the lexicon (and learned), and what information should be inherent to language (and not learned).

2.2.1.1 What’s in the Lexicon?

A major divide in the types of syntactic linking rules for arguments depends on the level at which operations that could change the argument structure of a predicate are done. There are two extremes, which Ramchand (2008: 8) describes:

(i) The static lexicon
The lexicon contains argument structure information which correlates in a systematic and possibly deterministic way with syntactic structure. The lexicon has its own vocabulary, but there are not lexicon-internal manipulations prior to insertion. Syntactic transformations can alter the manifestation of a particular set of lexical information in a sentence.

(ii) The dynamic lexicon
The lexicon contains argument-structure information which correlates in a systematic and possibly deterministic way with syntactic structure. The lexicon has its own vocabulary, as well as lexicon-internal manipulations prior to insertion. Syntactic transformations to account for alternations are kept to a minimum.

The first view is that of Baker (1989) and Hale & Keyser (1993, 2002). The second view is that of Levin & Rappaport Hovav (1995). However, there is a third possibility, represented by the framework of Babby (2009): there is a separate module in which the basic argument structure of a predicate is manipulated, after lexical insertion but prior to syntactic operations. This view will be described in section 2.2.2. Like the static and dynamic views of the lexicon, Babby’s framework requires stipulated linking to the syntactic structure.
There is yet another proposal, given in Borer (2005), which argues that the lexical entry contains no information about the thematic relations or argument structure of a predicate. Under her proposal, the lexicon only contains encyclopedic information about a lexical item, and lacks any grammatical or syntactic information, including category (e.g. N or V). Such a view is capable of capturing the great flexibility of predicates, as shown for *siren* in (68), but is not as elegant in capturing the rigidity of argument structure, as in (69).

(68)  
a. The fire stations sirened throughout the raid.  
b. The factory sirened midday and everyone stopped for lunch.  
c. The police sirened the Porsche to a stop.  
d. The police car sirened up to the accident.  
e. The police car sirened the daylights out of me.  

(Borer 2005: 69)

(69)  
a. *John slept the baby.  
b. *John watched Mary bored/to boredom.  

(Ramchand 2008: 10)

Following Ramchand 2008, I assume that the lexical entry does contain information about category, and perhaps even some selectional properties.

Now I return to the discussion of argument structure with the proposal that all argument structure alternations are the result of pre-syntactic operations.

2.2.2. *Autonomous Argument Structure (Babby 2009)*

Babby (2009) proposes a framework in which argument structure is a separate component from the lexicon and syntax. That is, lexical items contain all the information about argument structure in their lexical entry, but operations that change their basic argument structure or grammatical relations are not syntactic (or the result of a difference in lexical semantics). Rather, all operations that alter the argument structure, such as passivization and causativization, are done at a pre-syntactic level, and only the final, derived argument structure maps to the syntax. This differs from views that the lexical semantics of a predicate do map directly to the syntax, and from views that syntactic operations can alter the grammatical relations of a predicate’s
arguments, which were presented in the previous section. Rather, the lexical semantics of a verb is represented in a level of representation called the *diathesis*. Affixes, such as passive or causative, but also inflectional affixes, also have their own diathesis. A diathetic operation is the combination of two diatheses, yielding a final, derived diathesis, which is projected to the Extended Lexical Projection of the syntax (the vP) in a regular fashion (see Babby 2009: 32-36 for details).

Based largely on data from Russian, Babby proposes that a predicate’s theta role selection (semantic selection) and category selection (subcategorization) are autonomous. Neither can be reliably predicted from the lexical meaning of the verb, nor is one predictable from the other. Therefore, each is represented in a different *tier* of the diathesis. The top tier gives a predicate’s theta-selection, and the bottom tier gives the category selection. There are only four positions in a diathesis, because the valence of a verb has a universal range of zero to three arguments, and the predicate or affix is in the fourth position. When a theta role and category occur in the same position, they are *linked*, making this a bipartite representation of an argument. A sample diathesis of a three-place predicate, *give*, is shown in (70a), with the linear representation in (70b), and an example sentence in (70c).

(70)  

<table>
<thead>
<tr>
<th></th>
<th>i</th>
<th>j</th>
<th>k</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>N</td>
<td>P&lt;sub&gt;TO&lt;/sub&gt;</td>
<td><em>give</em></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

b. \{i^N\}_1 \{j^N\}_2 \{k^P_{TO}\}_3 \{^\wedge{give}\}_4\}

c. John<sub>i</sub> gave a book<sub>j</sub> to Sally<sub>k</sub>.

In the linear representation, the bipartite arguments are given in curly brackets. The symbol “^\wedge{}” is read as “is linked to”.

64
Additionally, inflectional and derivational affixes have their own argument structure. The diatheses of predicate stems and affixes combine, as argument structure operations, the resulting composition projects to the syntax. Such operations can displace the upper or lower tier’s contents, deleting theta roles and/or categorial heads, or introduce arguments of their own (e.g. causativizing affixes introduce a new external argument). Depending on the language, such affixes may be phonologically null or overt.

By way of example, I present a sample derivation of passivization in this framework. The diathesis of the passive affix is given in (71), showing the two major functions of the passive: dethematization of the external theta role, and promotion of the internal theta role. Thus, the diathesis of the passive affix shows that the external theta role is deleted, as is the argument the internal theta role links to.

\[(71) \{\{^\_\}^1 \{^\_\}^2 \{^\}^3 \{^\text{af\_PASS}\}^4\}\]

The empty positions indicate that these components of the base diathesis will not be changed by the addition of this affix. The derivation proceeds with the addition of the passive and verbal diatheses, yielding the resulting diathesis in (72c). Note that the external theta role \(i\) is not fully deleted, because of the availability of a slot in the fourth position. This results in the projection of the optional \(by\)-phrase argument-adjunct. The unlinked argument in the first position cannot project to the syntax, nor can the unlinked \(j\) theta role in the second position. This triggers an automatic operation of externalization of the \(j\) theta role to the available position, shown in (72d). This accounts for the initially internal argument projecting to the subject position of the passive, in (72e).
Although the ditransitive diathesis in (70) above has all theta role and argument positions filled, this is not always the case. It is possible to have slots that are empty, and the empty slots need not both be in the same position. This is exemplified in the difference between unaccusative and transitive impersonal verbs. An unaccusative verb has only one argument, which is the agreeing, nominative subject, but this argument does not bear the external theta role. Rather, it is a derived subject. The diathesis is given in (73).

(73)  \{\{\neg N\} \quad \{\neg^{-} \} \quad \{\quad \} \quad \{-^V\}\}

Because neither the unlinked N in the first position, nor the unlinked j theta role in the second position can project to the syntax, there is an automatic operation to prevent the derivation from crashing, which externalizes the j theta role, yielding the final diathesis in (74).

(74)  \{\{j^N\} \quad \{\neg^{-} \} \quad \{\quad \} \quad \{-^V\}\}

On the other hand, transitive impersonal sentences have no external argument at all. The initial diathesis of such a verb, like the Russian verb tošnit’ ‘be nauseous’, is shown in (75).

(75)  \{\{\neg^{-} \} \quad \{j^N\} \quad \{\quad \} \quad \{-^\text{tošnit’}{^\prime}\}\}

This accounts for the fact that tošnit’ is always subjectless, but has an internal argument. This argument cannot be externalized, because the diathesis does not have an external N\textsubscript{1} for the j to link to, as is the case with unaccusatives.

(76)  a. Menja tošnilo ot zapaxa krepkogo tabaka.

\begin{tabular}{l}
me:ACC nauseaed:N.SG from smell:GEN strong tobacco:GEN \\
\end{tabular}

‘The smell of strong tobacco nauseated me.’
b. *Zapax krepkogo tabaka menja tošnil.
   smell:NOM.M strong tobacco:GEN me:ACC nauseated:M
   ‘The smell of strong tobacco nauseated me.’

c. *Ja tošnil-sja ot zapaxa krepkogo tabaka.
   I:NOM nauseated:M-SJA from smell strong tobacco
   ‘I was nauseated from the smell of strong tobacco.’ (Babby 2009: 21)

The fact that (76c) is disallowed is due to the diathesis of the detransitivizing suffix –sja. This affix, as the diathesis in (77) shows, deletes the N2.

(77) { { ^ }_1 { ^– }_2 { ^ }_3 { ^–sja}_4}

This affix cannot combine with the verb tošnit’ because the deletion of N2 would result in a diathesis that has an unlinked j argument, which cannot project to the syntax.

The verb korčit’ ‘writhe’ is superficially similar to tošnit’ (compare (76a) and (78), but note that in (78b), korčit’ does allow the affixation of –sja. Babby claims that the difference comes from the optional unlinked N1, shown in the diathesis for korčit’ below in (79):

(78) a. Egoj korčilo ot boli.
   he:ACC writhed:N.SG from pain:GEN
   ‘He was writhing in pain.’

b. Onj korčil-sja ot boli.
   he:NOM writhed:M-SJA from pain
   ‘He was writhing in pain.’

c. *EgoACC korčilos’NEU ot boli.

d. *OnNOM.M korčim ot boli.

e. *EgoACC korčilaF bol’NOM.F.

   (Babby 2009: 40)

(79) { {^–(N)}_1 {j^N}_2 {^ }_3 {^–korčit’}_4}

When the diathesis in (79) combines with the diathesis of –sja, shown above in (77), the deletion of N2 triggers the externalization of the j theta role. It can project to the syntax if the optional N1 is selected.
As these examples show, any combination of filled and empty theta- or argument-positions is possible. This accounts for a variety of argument structure facts, such as the difference between unaccusative and unergative verbs, passivization, causativization, and the altered argument structure of impersonal sentences. However, because the argument structure is detached from the syntax, alternations that are based on the lexical semantics (or event structure) of a verb are not as easily captured. For instance, why do some verbs, like break, readily allow for detransitivization, while others, such as throw do not? Under Babby’s analysis, both transitive verbs would have the same initial diathesis, and as such should both combine with the detransitivizing affix equally well. As I will show in the following section, an event structural analysis can give a more satisfying account for these facts.

2.3. Event structure as a Representation of Argument Structure

A different approach to argument structure, rather than solely examining the structural relationships between arguments, is to examine differences in valency and argument realization in terms of the event denoted by a predicate. The underlying assumption is that the lexical semantic properties of verbs encode information about the event denoted by the verb, and these properties also determine many features of argument structure. For instance, many verbs that encode causation also have an argument that is semantically a causer. Examining event structure entails analyzing the (structural) representations of the event (or subevents) entailed by a predicate, and the relationship between the lexical semantics and the grammatical features (including argument structure, case, verbal aspect, etc.).

Levin & Rappaport Hovav 2005 (henceforth L&RH 2005) provide an overview of the many ways in which events have been used to discuss argument realization, in both formalist and functionalist frameworks. These include the localist approach, which focuses on motion and
location, the causal approach, which deconstructs causing events into smaller subevents, and the aspectual approach, which looks at part-whole relations of events, based on the temporal classifications developed in Van Valin (1957). In the following section, I will briefly provide background on the aspectual approaches to event structure, as it is most widely represented in the generative literature. This approach is also most relevant for the framework of Ramchand 2008, which I present in section 2.3.2, and adopt for the analyses in chapters 3 and 4.

2.3.1. Aspectual Approaches to Event Structure

The aspectual approach relies on the long-standing classification of verbs based on lexical aspect, or Aktionsart, which describes the internal temporal properties of the events denoted by verbs. This type of classification goes back to Aristotle, but in modern linguistics is most associated with the work of Vendler (1957). In this seminal work, he identifies four aspectual classes: activities, accomplishments, achievements and states. These are still the four classes of events used today, although some also recognize the class of semelfactives. I will define each of these categories in turn.

The most straightforward aspectual category is that of states (examples of each class are given below in (80). These predicates are static, meaning that they do not inherently entail a change of state, while the other categories are all dynamic. Within the dynamic classes, accomplishments and achievements both have an inherent temporal endpoint, a telos, and as such are referred to as telic. Accomplishments have duration, while achievements are punctual, or lack duration. The fourth class is activities, which are atelic, but have duration. Lastly, semelfactives are also atelic (in many uses), but punctual (non-durative).
(80) Examples of aspectual classes (L&RH 2005: 88)

a. States: be in the garden, be tall, resemble one’s mother, know the answer, believe in witches
b. Accomplishments: build a bridge, fix a sink, run to the store, eat an apple
c. Achievements: realize your error, reach the summit, discover the solution
d. Activities: play the piano, run, laugh, ride a bike
e. Semelfactives: knock, kick, jump, beep

While this classification of predicates into four (or five) lexical aspectual classes was intended to capture temporal facts (e.g. which predicates could occur in the progressive tense), there is significant overlap with nontemporal semantic properties, such as agentivity and causativity. For instance, as noted in L&RH 2005 (88-89) some diagnostics of agentivity (the ability to be used in the imperative) have been incorrectly ascribed to stativity. For example, *Roll down the hill, ball! is ungrammatical because it is unagentive, not because it is stative. Similarly, certain diagnostics intended to distinguish accomplishments from achievements also target agentivity, such as the adverbs carefully (as in *My mother carefully noticed the spot vs. My mother carefully read the letter). Another source of confusion is the notion of causation, again in terms of distinguishing accomplishments and achievements. This confusion is due to the fact that many accomplishments are causative (cool, harden, melt), while many achievements are not (reach, lose, notice). However, this distinction does not hold for all members of these two categories: the intransitive uses of verbs like cool and melt are still telic, but noncausative. Thus, as L&RH 2005 conclude, agentivity and causation are not factors that should go into the temporal classifications of Vendler (1957). However, these criteria will prove to be important in the next section on the causal approach to event structure.

Returning to the classifications in (80) above, it is important to note that these are all VPs, not single verbs. This is because the telicity, an important distinguishing factor in this classification system, is connected to the internal argument of a verb as much as the verb itself.
For example, the verb *drink* can be an atelic activity when there is no direct object, or the direct object is a mass noun (not specified for quantity), but it is a telic accomplishment with the presence of a direct object that is specified for quantity (the related notion of quantization from Krifka 1992 will be discussed below). This is shown in (81), with the diagnostic temporal adverbs *for X time* (indicating atelicity) and *in X time* (indicating telicity).

(81)  
   a. Morgan drank for five minutes/*in five minutes.  
   b. Morgan drank lemonade for five minutes/*in five minutes.  
   c. Morgan drank three glasses of lemonade in five minutes/*for five minutes.  

   (L&RH 2005: 90)

Other material in the VP, aside from the direct object, can also result in a telic reading, shown in (82) for an intransitive verb, and in (83) for a transitive one:

(82)  
   a. Taylor ran for an hour/*in an hour.  
   b. Taylor ran to the park *for three minutes/in three minutes.  
   c. Taylor ran her Reeboks to tatters *for three months/in three months.

(83)  
   a. Dana tugged the rope for a minute/*in a minute.  
   b. Dana tugged the boat to the shore *for twenty seconds/in twenty seconds.  
   c. Dana tugged the rope loose *for twenty seconds/in twenty seconds.  

   (L&RH 2005: 91)

The role of material inside the VP in determining telicity and the aspectual class, rather than just the verb itself, leads to a natural connection between aspect and argument realization. L&RH 2005 distinguish between two views of the role of telicity as it pertains to argument realization: compositional relationships between telic and atelic predicates, and event complexity. Because both rely on telicity, I now give an overview of the relationship between telicity and argument realization.

There are two views of telicity, presented in L&RH 2005: one involves the presence of a result state, and the other determines telicity through the part-whole structure of an event. This first view suggests that the endpoint, the *telos*, of an accomplishments and achievements comes
from the existence of a result state entailed by a predicate. Consider the adjective and morphologically related verb in (84):

(84)  
  a. The soup was cool. (*state*)
  b. The soup cooled. (attainment of state = *achievement*)
  c. Alex cooled the soup (cause bringing about state = *accomplishment*)

(L&RH 2005: 92)

The interpretation of (84b) as an achievement is based on the addition of a primitive predicate BECOME to the state (the state is attained), and the accomplishment in (84c) is based on the addition of a primitive predicate CAUSE to the achievement. Accomplishments can also be derived from activities through the addition of a result state, as in (85b):

(85)  
  a. Brett swept the floor. (*activity*)
  b. Brett swept the floor clean. (activity + result = *accomplishment*)

(L&RH 2005: 92)

Thus, under this view, telicity is calculated through the compositionality of the events.

The alternative view is that telicity is determined by the *quantization* of the predicate, or (in)divisibility. Telic predicates have an inherent terminal endpoint, and thus there is no subpart of the event that also contains the endpoint, making the predicate “indivisible” or quantized. The internal argument of telic predicates plays an important role in determining if the end point has been reached. For example, in the verb phrase *mow the lawn*, the state of the lawn determines if the end point has been reached. Additionally, every part of the lawn that is mowed constitutes a part of the event of mowing the lawn. These sorts of internal arguments are generally called “incremental themes”, based on Dowty 1991 (or “gradual patient” in Krifka 1992), although term applies more broadly for any change-of-state verb. The incremental theme is not just undergoing a change uniformly, but is a measure of the progression of the event. For example, in the sentence *Perry opened the shutter halfway*, the implication is that the shutter is halfway to the state of being open, not that half the shutter is open. Verbs of motion can also be analyzed in
this way with the moving object as the incremental theme. In the sentence *Mark jogged to the beach*, the degree to which the event has reached its endpoint is determined by how close to the beach Mark has jogged (L&RH 2005: 93-94).

Tenny (1994) examines the special status of internal arguments in determining telicity, and shows that these arguments “measure out” the event. However, the incremental theme itself is not necessarily the source of telicity; there may be other elements present in the verb phrase. She distinguishes between three event types, quite similar to those discussed in the preceding paragraph. The first class includes verbs like *eat*: in the act of eating an apple, the apple measure out the event because “Some quantity of apple is consumed during each interval of eating, until the apple is entirely consumed” Tenny 1994: 15). In this way, the apple also serves as the delimiter of the event, because the event ends when the apple is fully eaten. The second involves verbs with “path objects”, as in *Jerry climbed the ladder*. The ladder is the measure of the event, because the climbing event will be over when the end of the ladder is reached. This analysis also applies to events like translating a poem, in which the poem is the path object. Finally, there are change-of-state verbs, such as *harden* and *cool*. The patient argument is the measure, but the degree to which it has attained the property described by the verb (e.g. hardness or coolness) indicates the progress towards the endpoint of the event.

This last class of verbs also shows that the presence of an incremental theme does not entail telicity (Filip 1999, Ramchand 2008). The scale of verbs like *cool* and *lengthen* (e.g. the degree to which something is cool or long) does not have an inherent endpoint, while verbs like *empty* do have an end point (i.e. something that is long can get longer, but something that is empty can not necessarily get emptier). The telicity of predicates like *cool* depends on other information in the verb phrase, as shown in the pair in (86). The adverbial *in X time* creates a
temporal bound, and the verb phrase is telic, while the adverbial for X time does not create such a temporal bound, and the verb phrase is atelic.

(86)  
a. The soup cooled in twenty minutes.  
b. The soup cooled for twenty minutes.  

(L&RH 2005: 96)

Finally, some predicates may be telic but lack an incremental theme, such as recognize and touch the finish line (see Filip 1993 for discussion).

Aspectual classification of verbs is related to argument structure because of the connection between telicity and transitivity (here meaning the ability of a verb to take a direct object). Tenny’s (1994) aspect-based argument structure is laid out in her Aspectual Interface Hypothesis:

(87) Aspectual Interface Hypothesis:  
The universal principles of mapping between thematic structure and syntactic argument structure are governed by aspectual properties. Constraints on the aspectual properties associated with direct internal arguments, indirect internal arguments, and external arguments in syntactic structure constrain the kinds of event participants that can occupy these positions. Only the aspectual part of thematic structure is visible to the universal linking principles.

(Tenny 1994: 2)

This framework primarily addresses the morphosyntactic realization of the direct object and the semantic properties of telicity, measure and incremental theme described above. Tenny proposes constraints on mapping for direct and indirect internal arguments:

(88) Measuring-Out Constraint on Direct Internal Arguments:  
(i) The direct internal argument of a simple verb is constrained so that it undergoes no necessary internal motion or change, unless it is motion or change which ‘measures out the event’ over time (where ‘measuring out’ entails that the direct internal argument plays a role in delimiting the event).
(ii) Direct internal arguments are the only overt arguments which can ‘measure out the event’.
(iii) There can be no more than one measuring-out for any event described by a verb.  

(Tenny 1994: 11)
The Terminus Constraint on Indirect Internal Arguments:

(i) An indirect internal argument can only participate in aspectual structure by providing a terminus for the event described by the verb. The terminus causes the event to be delimited.

(ii) If the event has a terminus, it also has a path, either implicit or overt.

(iii) An event as described by a verb can only have one terminus. (Tenny 1994: 68)

In this framework, only a direct internal argument can be a measure, but not all direct internal arguments actually are measures. For instance, in the verb phrase *push the cart to the wall*, the cart is not the measure, or incremental theme, because *push the cart halfway to the wall* does not entail that half the cart has reached the way, but that the cart has traversed half of the path to the wall.

Much work has also been done to account for semantic features of the internal argument that relate to telicity (Krifka 1992, Dowty 1991, Filip 1999). One feature worth mentioning here is the distinction between quantized and cumulative internal arguments. Mass and indefinite plural nouns (e.g. *water* and *apples*) are cumulative, in the sense that “any sum of parts which are water is water, and any two sums in the denotation of *apples* add up to a sum also in the denotation of *apples*” (Filip 1999: 6). Count noun phrases and measure phrases (e.g. *a/the/one/five apple(s), a glass of wine*) are quantized, because any part of *five apples* does not also denote ‘five apples’. The effect on telicity can be seen in the difference in adverbial modification in (90) (see also (81) and the discussion above).

(90)  
   a. John ate apples for an hour/*in an hour.  
   b. John ate five apples *for an hour/in an hour.

The semantic features of the argument affect telicity via aspectual composition, as described in (91).
(91) Aspectual composition:
An episodic verb (in sentences denoting single eventualities) combined with a quantized Incremental Theme argument yields a quantized verbal predicate, while with a cumulative Incremental Theme argument it yields a cumulative verbal predicate.
(Filip 1999: 7)

Thus, (90a) is a cumulative (atelic) predicate because any part of event eat apples is also an event of eat apples. The predicate in (90b) is quantized because the subparts of eat five apples are not equivalent to the entirety of the event eat five apples.

In the generative grammar framework, as discussed in L&RH 2005, the telicity of a predicate is associated with the direct object being located in the specifier of a functional projection, often called AspP (for Aspect Phrase). Such a head is responsible for accusative case licensing, which accounts for the accusative-partitive case alternation in Finnish:

(92) a. Ammu-i-n karhu-a / kah-ta karhu-a / karhu-j-a
   shoot-PST-1SG bear-PART / two-PART bear-PART / bear-PL-PART
   ‘I shot at the (a) bear / at (the) two bears / at (the) bears’

   b. Ammu-i-n karhu-n / kaksi karhu-a / karhu-t
   shoot-PST-1SG bear-ACC / two-ACC bear-PART / bear-PL.ACC
   ‘I shot the (a) bear / two bears / the bears’ (Kiparsky 1998: 267)

The accusative case in (92b) is associated with a telic interpretation because accusative is licensed in AspP, while the partitive case in (92a) gives an atelic reading of the sentence, because the object does not check any aspectual features with the functional head. This is similar to the conative alternation in English, as in John ate the cake compared with John ate at the cake. In this way, telicity can be associated with the morphosyntactic realization of the direct object specifically, and argument structure in general.

It should be noted, however, that telicity is not solely dependent on the presence of a direct object. Nor is a cumulative internal argument exclusively an indicator of an atelic predicate. This is exemplified in (93a). As I discuss in the following section, the event structural
analysis of Ramchand 2008 is able to account for the telicity of intransitive predicates, and predicates with non-quantized internal arguments, as exemplified in (93b).

(93)  a. John stood up in a second.
   b. They found gold in three hours.

   (Ramchand 2008: 25)

Another aspectual property of verbs that has been associated with argument structure and argument realization is event complexity. Rather than a predicate denoting a single event, the meaning of a predicate is decomposed into primitive predicates, or subevents, such as cause, act and become. Many predicates contain more than one, for instance the sentence *Michael broke the lamp* has both a causing subevent (Michael doing something), and the resulting state subevent (the lamp being broken). Evidence for such subevental analyses come from the behavior of certain modifiers. For example, the adverb again in the sentence *The butler opened the door again* allows for two interpretations, depending on the subevent it modifies. On one reading, the butler is again opening a door, and in the other reading, the door is being opened again, but the butler did not necessarily open it the first time. A similar point is made with durative adverbials, as they can either describe the duration of an event (as in *Robin Hood hid for two weeks*), or the duration of the result (as in *The Sherriff of Nottingham jailed Robin Hood for 20 years*) (L&RH 2005: 113).

There are two approaches to event complexity: in terms of the result state or in terms of the temporal relations between subevents. The first approach, from Pustejovsky 1995, holds that any event that is telic must be complex. The underlying assumption is that telicity is related to a change of state, and a change of state is inherently associated with a complex event structure (cf. the analysis of telicity shown in (84) above). If there is not a causing subevent, in the case of noncausative uses of change of state verbs, such as intransitive *harden* or *cool*, these verbs can
still be considered complex because of the presence of a result state subevent. The theme in a sentence like *The soup cooled* is the holder of the result state.

The alternative approach, adopted by L&RH 2005, is based on a definition of an event as a set of “temporally anchored properties...which are necessarily true of the same interval” (p. 115). However, the subevents of a complex event need not be temporally aligned. In a sentence like *Terry thawed the meat*, the causing subevent does not necessarily last the entire length of the thawing.

The event complexity approach relates to argument structure because of the relationships between entities described by arguments and the (sub)events denoted by a predicate. Rappaport Hovav and Levin (2001: 779) formulate a requirement that each subevent in a complex event be associated with an argument:

(94) The Argument-per-subevent condition:
There must be at least one argument XP in the syntax per subevent in the event structure.

The implication is that intransitive predicates cannot have complex event structure, contra the proposal of Pustejovsky 1995. Rather, Rappaport Hovav and Levin (2001) examine English resultative constructions in terms of event complexity. Some intransitive verbs allow a result phrase of the subject, as in (95a), and some allow a “fake” reflexive, as in (95b):

(95) a. The coats steamed dry.
   b. The diva was careful not to sing *(herself) hoarse.*

(L&RH 2005: 116)

They propose that there is an inherent temporal overlap in the two components of (95a), because the drying happens as long as the steaming, but that such an overlap is not necessary in (95b), because the hoarseness may develop after the singing stops. For this reason, they conclude that the latter is a true complex event, which is why there must be a reflexive pronoun associated with
the result subevent. The argument-per-subevent requirement is rejected by the analysis of event structure in Ramchand 2008, discussed in section 2.3.2 below.

Finally, I return to the transitivity alternations, discussed above in section 2.2. The key alternation is repeated here as (96)-(97).

(96) Transitive:
   a. The boy broke the window with a bat.
   b. The boy hit the window with a bat.

(97) Intransitive:
   a. The window broke.
   b. *The window hit.
   
   (Levin and Rappaport Hovav 2005: 1)

In an event structural analysis of this alternation, the lexical semantics of the verbs are of importance. In L&RH 2005, it is noted that the verbs that allow for a causative alternation are generally those with a change of state or change of location entailed in the meaning of the root. They make the same appeal to general facts about lexical semantics as in Levin and Rappaport Hovav 1995, and as Hale & Keyser 2002. As I will show in the following section, there is a more satisfying approach offered by the predicate decomposition in Ramchand 2008, which relies on the notion of event complexity.

In this subsection, I have outlined the key elements of the aspectual approach to argument structure. Verb phrases can be classified into different types of events (states, achievements, accomplishments and activities) on the basis of their dynamicity, telicity, and duration. The most relevant feature for argument structure is telicity, as it has been connected to transitivity and the morphosyntactic realization (e.g. case) of the direct object. However, this proposal is not without its shortcomings, as not all telic events do have direct objects. Finally, the complexity of an event, based on predicate decomposition, is also relevant to argument realization. In the next
subsection, I give a detailed summary of the decompositional approach to argument structure of Ramchand 2008.

2.3.2. First-Phase Syntax

Ramchand (2008) proposes a syntactic representation of complex subevents inside the vP, or “first phase” in the sense of Chomsky (2001). She addresses the issue of the simultaneous specificity and flexibility of argument structure. That is, she attempts to account for the ability of verbs to be used in both telic and atelic verb phrases, causative and noncausative functions, transitively and intransitively, and so on. Such variable behavior of verbs is exemplified by the verb *eat* in (98), from Ramchand (2008: 21):

(98)  
   a. John ate the apple.  
   b. John ate at the apple.  
   c. The sea ate into the coastline  
   d. John ate me out of house and home.  
   e. John ate.  
   f. John ate his way into history.

At the same time, the variation is not without limitation, as shown in (99) and (100) from Ramchand (2008: 21).

(99)  
   a. John arrived.  
   b. *Bill arrived John.

(100)  
   a. Mary weighs 100 pounds.  
   b. *Mary weighs.

To account for both the flexibility and rigidity of argument structure, Ramchand proposes to eliminate semantic selectional features from the lexicon in favor of encyclopedic (e.g. real world) information. The constraints that exist are captured syntactically, thanks to an extended vP that gives a structural representation of complex events (as discussed above in 2.3.1), relying on a relatively small set of semantic primitives. These primitives include both the subevents of her decompositional framework, and the role types, which are defined based on the subevent.
The first primitive Ramchand establishes is the external argument, which she associates with causation rather than agency. This association is based on the analysis in Rappaport Hovav and Levin 2000 of verbs like *glow, stink,* and *spew.* These verbs have an external argument, as evidenced by the possible addition of *X’s way* arguments, and the inability to causativize, shown in (101).

(101)  
   a. He stank his smelly way home.
   b. *We stank the dog by throwing him in the cesspit.
       (Rappaport Hovav and Levin 2000, in Ramchand 2008: 23)

Additional evidence that causation, not agency, is the relevant factor for external arguments comes from non-volitional agents, exemplified in (102):

(102)  
   a. Volitional agent: *John broke the window.*
   b. Instrumental external argument: *The hammer broke the window.*
   c. Abstract cause/source: *The storm broke the window.*
       (Ramchand 2008: 24)

For this reason, the external argument is called the *initiator* in this framework.

Next Ramchand turns to internal arguments, arguing that there is no isomorphic relationship between the presence of an internal argument and telicity. Even if an argument is undergoing some change, the attainment of a final state is not inherently entailed. Such is the case with verbs like *cool* and *harden,* which imply change but are not necessarily telic. As shown in (103), soup can cool, but still be hot.

(103)  
   The soup cooled for two minutes, but was still too hot to eat.

As noted by Rappaport Hovav and Levin 2000, these sorts of verbs are unaccusative (indicating an internal argument), and can be causativized, as in (104).

(104)  
   She cooled the pies on the windowsill.

Thus, Ramchand distinguishes an *undergoer* argument, the presence of which does not imply telicity. Quantization of an internal argument is also not the source of telicity, despite
previous claims, particular to verbs of creation and consumption (such as write and eat, respectively). Rather, Ramchand argues that the internal arguments of these types of verbs are more like paths traditionally associated with verbs of motion, as shown in (105).

(105)  
   a. John pushed the coconut along the beach.  
   b. John pushed the cart to the end of the garden.  

(Ramchand 2008: 30)

The internal arguments in (105) are undergoing a change in location, and the PPs are the path of that motion. Only with a specified final location, as in (105b), is a telic reading possible. For verbs of creation/consumption, it is the created or consumed argument that defines the path, as they are the indicators of completion of the event. This accounts for the quantization effects, seen above in (90). A quantized path argument creates an endpoint for the event, resulting in the telic reading.

Finally, there are verbs which are inherently telic, even with non-quantized internal arguments. Examples are given in (106):

(106)  
   a. John broke the stick in a second/*for a second.  
   b. Mary arrived in two minutes/*for two minutes.  
   c. Michael found gold in just ten minutes.  

(Ramchand 2008: 32)

Ramchand claims that the source of the telicity, evidenced by the failure of the for X time test, is that the arguments not only undergo a change, but also are holders of a result state. Such arguments are given the label resultee.

In addition to these four argument types, initiator, undergoer, path and resultee, there are non-aspectual arguments. These include objects of stative verbs, and other descriptive elements in the verb phrase. Examples are given in (107):
Such arguments are given the label *rheme*, with *path*, as in (107e) and (107f), being a special subtype. These can be associated with stative and dynamic predicates, and even related to the result state, as in *the room* in (107g).

All of the primitive semantic roles sketched out above are projected to the syntax based on the event structure of the predicate. Ramchand argues for three primitive subevents: a causing subevent, a process-denoting subevent, and a result state. Each semantic role is associated with a particular subevent, as shown in the tree\(^\text{11}\) in (108).

\[(108) \quad \text{initP (causing projection)}\]

\[
\begin{array}{c}
\text{initP} \\
\downarrow \\
\text{DP}_1 \\
\downarrow \\
\text{subj of ‘cause’} \\
\downarrow \\
\text{init} \\
\downarrow \\
\text{procP (process projection)} \\
\downarrow \\
\text{DP}_2 \\
\downarrow \\
\text{subj of ‘process’} \\
\downarrow \\
\text{proc} \\
\downarrow \\
\text{resP (result projection)} \\
\downarrow \\
\text{DP}_3 \\
\downarrow \\
\text{subj of ‘result’} \\
\downarrow \\
\text{res} \\
\downarrow \\
\text{XP} \quad \text{(Ramchand 2008: 39)}
\end{array}
\]

The *init* phrase, the causational projection, introduces the external argument, similar to *v* in recent proposals elsewhere (Hale and Keyser 1993, Harley 1995, Kratzer 1996), or *v*-voice in

\[^{11}\text{Ramchand gives the arguments as DP, but I will use NP in the discussion of Russian and Lithuanian in the following chapters, remaining agnostic as to whether the DP hypothesis is correct or not.}\]
Pylkkänen 2008. This functional head also introduces the causing subevent. The proc phrase the dynamic process projection, specifies the nature of change, and licenses the undergoer argument. The res phrase, the projection of the subevent which denotes a resulting state, is responsible for the telicity of a predicate, and introduces the holder of the result, or resultee. In this framework, there is no single head that corresponds to the traditional V, because the functions of the head are split into proc and res, based on the distinction between the process and result subevents, and the undergoer and resultee arguments.

The final element of the tree above is the XP complement to the head res. Note that the aspectual arguments (initiator, undergoer and resultee) are in the specifier positions. They are the ‘subjects’ of the respective subevents. This leaves the complement of the subevent heads as the position of rhemes, the non-aspectual arguments that provide additional information about the predicate. Path arguments are complements to proc, as they provide a measure for the event, particularly with verbs of creation and consumption. Rhemes of stative verbs, and rhemes of result do not have this path structure. All rhemes can be NPs, APs, or PPs.

In the framework outlined here, there are three functional heads in what is typically labeled vP. As noted above, the V head, typically associated with the verbal lexical item, is split into two distinct functions, process and result. This raises the question of how a telic predicate like arrive, which only has one argument, can be represented in the structure given in (108). While not all predicates will have all three functional heads (atelic predicates, for instance, will lack a res projection), it is possible to have all three. This is due to the semantic features of lexical items, which will determine which subevental projections they can Merge into. Thus, a predicate like arrive, which entails all three subevents, will have features of init, proc, and res.
This allows the lexical item to Merge into the lowest position, and then Remerge into higher positions.

This structural elements and relations are clarified through the derivation of the verb *push*, which is specified with the features \([init, proc]\), in the sentence *Sally pushed the cart to the beach*. The verb will Merge with an NP argument and project the label *proc*. The resulting projection remerges with *init*, yielding *procP*. The next argument merges, resulting in *initP*. The lower argument, being in the specifier position of *proc* is the UNDERGOER, and the higher argument, the specifier of *init*, is the INITIATOR. The tree is shown in (109).

\[(109)\]
\[
\begin{array}{c}
\text{initP} \\
\downarrow \\
\text{DP}_2 \\
\text{Sally} \\
\downarrow \\
\text{init} \\
\downarrow \\
\text{push} \\
\downarrow \\
\text{DP}_1 \\
\text{the cart} \\
\downarrow \\
\text{proc} \\
\downarrow \\
<\text{push}> \\
\downarrow \\
\text{PP} \\
\text{to the beach}
\end{array}
\]  

(Ramchand 2008: 61)

Just as a single lexical item may project to different functional heads, a single argument may also be associated with more than one semantic role. For instance, in the sentence *Ariel entered the room*, *Ariel* holds the composite role INITIATOR-UNDERGOER-RESULTEE, as one single argument is the source of causation, undergoing a change of location, and the holder of the result state. The argument *the room* serves as a RHEME, modifying the result state. The copy theory of movement allows for the argument to occupy multiple specifier positions, as shown in (110) below. The unpronounced occurrences of the lexical items are given in brackets.
This model of event structure is able to capture argument structure alternations by relying on the semantic subevent features specified by various verbs. Here I provide Ramchand’s analysis of the transitive-inchoative alternations found with verbs like *break* and *melt*, shown in (111) and (112) (Ramchand 2008: 85).

(111) a. Alex broke the stick.
    b. The stick broke.

(112) a. Karena melted the butter.
    b. The butter melted.

Previous analyses have suggested that the transitive verb is the basic argument structure, and the inchoative is derived, based on the addition of detransitivizing reflexive affix in Romance and Slavic. However, not all transitive verbs have an inchoative version, as seen in (113) and (114), and in the examples with *break* and *hit* discussed above in sections 2.2 and 2.3.1.

(113) a. Ariel threw the ball.
    b. *The ball threw.

(114) a. Karena hammered the metal.
    b. *The metal hammered.
The alternation under Ramchand’s system is explained not as detransitivizing, but as causativization. Verbs like break and melt can have their initial semantic features augmented through the addition of an initiation subevent, which also introduces an INITIATOR argument. The init subevent would be introduced by a null causative affix. The difference between the inchoative and transitive predicates is shown in (115) and (116):

(115) \[ \text{procP} \]
\[ \text{the butter} \]
\[ \text{proc} \]
\[ \text{<melt>} \]
\[ \text{XP} \]

(Ramchand 2008: 87)

(116) \[ \text{initP} \]
\[ \text{Karena} \]
\[ \text{init} \]
\[ \text{Ø}_{cause} \]
\[ \text{procP} \]
\[ \text{the butter} \]
\[ \text{proc} \]
\[ \text{<melt>} \]
\[ \text{XP} \]

(Ramchand 2008: 86)

Additional evidence for the causativizing analysis is seen in the range of arguments that can be initiators for alternating verbs like break, compared with non-alternating transitive verbs like throw (or hit).

(117) a. The sudden change in temperature broke the glass.
    b. The storm broke the glass.
    c. Michael broke the glass.

(118) a. ??The sudden change in wind direction threw the towel over the fence.
    b. Michael threw the towel over the fence.

(Ramchand 2008: 88)
Finally, there must be a way to account for intransitive verbs that cannot be causativized. Intransitive verbs that cannot be made transitive are those with composite INITIATOR-UNDERGOER arguments, such as *run and arrive. The prediction is correct, as seen in (120):

(120)  
  b. *Kayleigh arrived Katherine.  

(Ramchand 2008: 86)

As I have shown, the decompositional event structure framework of Ramchand 2008 accounts for argument structure, while also capturing the aspectual components of alternations. This system captures telicity, while not relying an internal argument to determine the (a)telicity of a predicate. Rather, it is the presence of a result state that makes a predicate telic. This notion will be of importance to my analysis of Russian and Lithuanian oblique passive verbs in chapter 3, as verbs that license oblique case on their internal arguments do not allow statal (object-oriented resultative) passives. Additionally, the distinction between UNDERGOER and PATH allows for different structural positions of direct internal arguments. This component of Ramchand’s framework provides the basis for my analysis of accusative-instrumental case alternations in Russian and Lithuanian in chapter 4. There I will show that only accusative arguments can be UNDERGOERS, which also accounts for their interpretation as Prototypical Patients, in the sense of Dowty 1991.

2.3.3. Case and Event Structure

As a conclusion to the overview of the theoretical background for the analysis to come in chapters 3 and 4, I briefly examine previous analyses of morphological case marking phenomena in an event structural model. Just as there is evidence for a connection between morphological case and argument structure, there are connections between case and event structure. One of the
most well-known examples is the partitive conative alternation in Finnish, discussed briefly in above in section 2.3.1, which shows a relationship between case and telicity.

Svenonius (2002) also relates case to event structure in Icelandic. He proposes that accusative-dative alternations are based on the temporal relationships between subevents of a predicate. Certain caused motion verbs allow either accusative or dative case on the internal argument, with the case resulting in a difference in meaning. The accusative is used with accompanied movement, as in (121a), while the dative is used with ballistic motion, as in (121d).

(121) Icelandic accusative-dative alternation:
   a. Þeir sópuðu rúsli.
      they swept garbage:ACC
      ‘They swept the garbage.’

   b. ??Þeir sópuðu rusli.
      they swept garbage:DAT

   c. *Þeir sópuðu rúsli í poka.
      they swept garbage:ACC in bag:ACC

   d. Þeir sópuðu rusli í poka.
      they swept garbage:DAT in bag:ACC
      ‘They swept garbage into a bag.’

Svenonius’ proposal is that the accusative is licensed when there is a temporal overlap between the two subevents. The agent’s involvement does not end after causation. Dative case is licensed when there is not a temporal overlap between the two subevents, and the agent’s involvement ends after the causation. This captures the difference in meaning between the two types of motion, and the case marking of the internal argument. Furthermore, he provides evidence for a connection between morphological case and complex event structure, which is relevant to my proposals in chapters 3 and 4.

Richardson (2007) examines case and its relationship to aspect in Slavic, paying attention to the difference in verbs that license accusative case on their internal argument and those that do
not. Contrary to other claims (Borer 2005, Babko-Malaya 1999), Richardson concludes that accusative case is not linked directly to telicity, but rather to the compositional event structure of the verb. Compositional event structure, as she defines it, is whether the (a)telicity of a verb phrase is affected by the internal argument or certain kinds of prefixation.

Her proposal for the connection of case and aspect relies on a different notion of aspect than what has been described thus far in this section. Richardson’s analysis relies on the distinction between lexical and grammatical aspect. Lexical aspect is the classification of events into states, accomplishments, achievements and activities, based on Vendler 1957, described above in 2.3.1. Grammatical aspect is the temporal perspective of an event, as in the perfective/imperfective distinction of the Slavic verbal systems. Determining grammatical aspect is based on whether an eventuality is bounded (perfective) or unbounded (imperfective) in time, and whether the eventuality has a natural end point or not. As Richardson shows for Russian, perfectivity and telicity do not have a direct correspondence: there are imperfective verbs in telic predicates, and perfective verbs in atelic predicates, shown in (122).

(122) a. Telic imperfective verb (Richardson 2007: 19)
Vanja vsegda pisal doklady za odnu noč’.
Vanja always wrote:IMPF papers:ACC in one night
‘Vanja always wrote his papers in a night.’

b. Atelic perfective verb (Richardson 2007: 20)
*Alya tolnula teležki za pjàt’ minut.
Alya pushed:PF carts:ACC in five minutes
‘Alya pushed the carts (*in five minutes).’

On the basis of examples like (122), Richardson argues that telicity\(^\text{12}\) is not linked to the grammatical aspect of the verb, and that accusative case cannot be a marker of telicity. The

\(^{12}\) Richardson (2007: 19-23) shows that the in X time test only works for perfective verbs. There is another test for the telicity of imperfective verbs: the progressive test. For atelic predicates, the progressive entails the perfect present, but not for telic predicates.
distinction between lexical and grammatical aspect is an important part of her argument for linking case to aspect. As she shows, (mono)transitive verbs that license a case other than accusative (i.e. lexical case) on their (direct) internal argument are never telic\textsuperscript{13}, even when perfective, as shown for Russian in (123):

(123) a. Genitive internal argument:
* Nataša kosnulas’ stola za 10 minut.
Natasha touched:PF table:GEN in 10 minutes
‘Natasha touched the table (*in 10 minutes).’

b. Dative internal argument:
* On povinoval’sja prepodavatel’nice za nedelju.\textsuperscript{14}
he obeyed:PF teacher:DAT in week
‘He obeyed the teacher (*in a week).’

c. Instrumental internal argument:
* Ona s-komandovala diviziej za god.
she PRF-commanded:PF division:INST in year
‘She commanded the/a division (*in a year).’

Here it is necessary to distinguish between three types of prefixes in Slavic: purely perfectivizing, superlexical, and lexical. Examples from Russian are given in (124).

(i) Mary is driving the car.
      Entails: Mary has driven the car.
(ii) Mary is running a mile.
      Does not entail: Mary has run a mile.

\textsuperscript{13} The one possible exception is the Russian verb dostigat’/dostignut’ ~ dostič’ ‘reach, achieve’, which licenses genitive on its internal argument. Richardson (2007: 81-83) proposes that this could be due to the etymology of the verb, which historically was the prefix do- plus the verb stiči, which has been lost in modern Russian. Additionally, she notes that this verb allows a PP internal argument (for some speakers):
(iii) Ja dostigla (do) veršiny.
      I reached to summit:GEN
      ‘I reached the summit.’

\textsuperscript{14} As Richardson (2007: 65) notes, the verb povinovat’sja ‘obey’ is biaspectual in the past tense.
(124)  a. *Purely perfectivizing prefixes:*
    stroit’-IMPF ‘to build’ p-stroit’-PF ‘to build’

    b. *Superlexical prefixes:*
    rabotat’-IMPF ‘to work’ za-rabotat’-PF ‘to begin to work’

    c. *Lexical prefixes:*
    bit’-IMPF ‘to hit, beat’ pere-bit’-PF ‘to interfere (lit. cross-beat)’

    (Richardson 2007: 53)

Base verbs are those which have no prefixes. Purely perfectivizing, as shown above, do not affect the meaning of a base verb, but bound the event in time. Superlexical prefixes do add meaning to the base verb, but do not shift the lexical aspect. Even though zarabotat’ ‘to begin to work’ above is perfective, it is atelic, like the base verb rabotat’ ‘to work’. Lexical prefixes alter the meaning of the base verb significantly, but can also change the lexical aspect. For instance, letet’ ‘fly’ is atelic, but the addition of the lexical prefix pere- ‘across’ creates a telic predicate, shown in (125):

(125) Samolot pere-letel granicu za čas.
    airplane across-fly:PST border:ACC in hour
    ‘The airplane crossed the border in an hour.’ (Richardson 2007: 54)

This example highlights the notion of compositional event structure. A base verb’s event structure is compositionally determined if the (a)telicity is affected by the presence/absence of an internal argument, or by the addition of a lexical prefix. In (125), it is the addition of the lexical prefix that makes the atelic verb letet’ ‘fly’ become telic.

Richardson shows that verbs that require a lexical case on their internal argument are (almost\(^\text{15}\)) never made telic by the addition of a prefix, in stark contrast to verbs that require accusative. In this way, accusative case is related to lexical aspect and event structure, but lexical

\(^{15}\) Richardson (2007: 86) identifies only a handful of exceptions.
case is not. Her conclusions will be relevant to my analysis of Russian and Lithuanian oblique passives, to be discussed in chapter 3.

2.4. Chapter Conclusion

In this chapter, I have provided the theoretical background that will provide the basis of my analysis of case marking phenomena in Lithuanian and Russian. First, I discussed case theory, examining its initial foundations in generative grammar, and focusing on case typology. I gave evidence for distinguishing between lexical and semantic case, rather than lumping these two together as non-structural case. I briefly discussed case licensing as well, although this aspect of case theory is not of great relevance in the following chapters.

The remainder of the chapter was dedicated to argument structure. In section 2.2, I gave an overview of several different approaches to argument structure, including syntactic and non-syntactic approaches. In section 2.3, I gave a summary of event structure and its basis as an approach to argument structure. Finally, I presented the framework that will be adopted in subsequent chapters, the decomposed vP structure of Ramchand 2008. I also summarized previous event structural approaches to morphological case marking, providing the empirical basis for the approach that will be given in chapters 3 and 4.
Chapter 3. Oblique Passivization in Russian and Lithuanian

3.0. Introduction

In this chapter, I examine the phenomenon of oblique passivization in Russian and Lithuanian. I define this term as the ability to form an agreeing passive participle by a verb that requires a case other than accusative on its internal argument. Linguists have claimed (Freidin 1992: 206-07, Woolford 2006: 118) that this was never the case, perhaps based on data from Germanic languages. Indeed, in German and Icelandic, passives from oblique-case governing verbs are not formed with agreeing participles, and the internal argument remains in the same case as in the active counterpart. Examples of Russian and Lithuanian can be seen in (1) and (2), while German and Icelandic are given in (3) and (4).

(1) Russian oblique passive:
   a. Borisov upravljaet fabrikoj.  
     Borisov:NOM manages factory:INST  
     ‘Borisov manages the factory.’

   b. Fabrika upravljaet-sja Borisovym.  
     factory:NOM manages-REFL Borisov:INST  
     ‘The factory is managed by Borisov.’ (Fowler 1996: 519)

(2) Lithuanian oblique passive:
   a. Jonas vadovauja fabrikui.  
     Jonas:NOM manages factory:DAT  
     ‘Jonas manages the factory.’

   b. Fabrikas buvo Jono vadovauja-m-as.  
     factory:NOM.M.SG was Jonas:GEN manage-PST.PASS-M.SG  
     ‘The factory was managed by Jonas.’

---

1 This topic was first discussed in Anderson 2009, but this chapter prevents rather different views, also in Anderson (forthcoming). Thanks to Valerija Vasiliauskienė to introducing me to this topic, and Kristina Lenartaitė for providing me with invaluable data. Thanks to the audiences of AATSEEL 2005, CABL 2009, and AATSEEL 2013, and to the editors and anonymous reviewers of the CABL proceedings (forthcoming) for their feedback.
(3) German dative passive:
   a. Sie hilft ihm.
      she helps him:DAT
      ‘She helps him.’

   b. Ihm/*er wird geholfen.
      he:DAT/*NOM is helped:PASS
      ‘He was helped.’ (cited in Woolford 2006: 118)

(4) Icelandic dative passive:
   a. Þeir skiluðu Mariú bókinni.
      They returned Mary:DAT the-book:DAT
      ‘They returned the book to Mary.’

   b. Mariú var skilað þessari bók.
      Mary:DAT was return:PASS this book:DAT
      ‘Mary was returned the book.’ (cited in Woolford 2006: 118)

Passivization can also occur with verbs that have preposition phrase arguments, shown in

(5):

(5) Lithuanian:
   a. Jis atakė į klausimą.
      he:NOM answered to question:ACC
      ‘He answered the question.’

   b. Klausimas jo yra/buvo atsaky-t-as.
      question:NOM.M.SG he:GEN is/was answer-PST.PASS-M.SG
      ‘The question was answered by him.’ (K. Lenartaitė, p.c.)

   In addition, Lithuanian also allows for non-arguments\(^{2}\) to be promoted to subjects of passive participles. As seen in (6), there is an instrumental NP in the active (a) sentences becomes an agreeing subject for the passive participle in the (b) sentence.

\(^{2}\) While it is possible that the instrumental is an adjunct in (5), it is not entirely clear that it is not an argument, albeit peripheral. The distinction between arguments and adjuncts is nuanced, but such details do not detract from my analysis of oblique passivization.
Lithuanian:

a. Tu valgai šituo šaukštų.
   you:NOM eat:PRES this:INST spoon:INST
   ‘You are eating with this spoon.’

b. Šis šaukštas tavo valgo-m-as.
   this:NOM.M.SG spoon:NOM.M.SG you:GEN eat-PR.PASS-M.SG
   ‘This spoon has been eaten with by you.’ (Jablonskis 1997:132)

This is reminiscent of the pseudopassive in English (e.g. *This bed was slept in by George Washington*), which also allows adjuncts and objects of certain prepositions to become subjects under passivization. However, even for the preposition phrase in (5), the preposition is not stranded, as it is in English.

The existence of such oblique passives, as in (1)-(2) and (5)-(6) above, presents a problem for many analyses of passivization. For some time, the general consensus on passivization was that the passive participle absorbed the accusative case, but that other cases on internal arguments were strong lexical requirements and could not be overridden. This account fails for Russian and Lithuanian, although there are some oblique-case governing verbs that do not passivize. This led to the conclusions in Anderson (2009), claiming that there were two different types of non-structural cases that could show up on internal arguments: semantic and lexical. Lexical case could be overridden, while semantic could not, perhaps because it added to the interpretation of the clause.

New data, brought to my attention by Kristina Lenartaitė, show that Anderson (2009) had an incomplete view of oblique passivization in Lithuanian. As shown in (7), oblique passivization is often more felicitous with present passive participles, rather than past passive participles.
(7) Lithuanian:
   a. Vaikas padėjo motinai.  
      Child help:PST mother:DAT  
      ‘The child helped the mother’
      mother:NOM.F.SG was child:GEN help-PASS-F.SG  
      Intended: ‘The mother was helped by the child’
   c. Motina būdavo/buvo vaiko padeda-m-a.  
      mother:NOM.F.SG was:FREQ/was:PST child:GEN help-PASS,PRES-F.SG  
      ‘The mother usually was/was helped by the child’ (K. Lenartaitė, p.c.)

Crucially, present passive participles can only be used as actional, or verbal, passives, not statal, or adjectival passives (Geniušienė 2006). It has been shown for Russian (Babko-Malaya 1999) that non-accusative licensing verbs cannot form adjectival passives. Actional passives describe an action done to the patient argument, whereas statal passives describe a state held by the patient argument. Using an event structural analysis, I argue that the two types of passives target different levels of the syntactic structure, accounting for the ability of oblique case marking verbs to passivize in the first place, and to account for the difference in acceptability for the present and past participles in examples like (7).

The ability for oblique case arguments to be promoted to agreeing, nominative subjects of passives also has implications for case theory. Woolford (2006) claims, on the basis of examples like (3) and (4), that only verbs with structural case marked internal arguments allow passivization with an agreeing subject. On the basis of counter examples to her proposal, shown above in (1) and (2), I propose that structural case is not the determining factor for passivization in Russian and Lithuanian, but rather the structural position of the internal argument.

The structure of this chapter is as follows: in the next section, I will examine tests for structural and non-structural case, showing that the internal arguments of verbs that allow oblique passivization pass all other tests for non-structural case. In section 3.1.1, I give details on
oblique passivization in Russian, including background on how passives are formed in this language, and a brief excursus on oblique passivization in Polish. In section 3.3, I describe oblique and adjunct passivization in Lithuanian, also discussing how passives are formed. In section 3.4, I discuss the differences between actional and stative passives, and how they are expressed in Russian and Lithuanian. In section 3.5, I present previous approaches to oblique passives, and conclude this section with an event structural analysis.

A brief note on terminology is in order, as passivization results in major changes to the argument structure of a verb. I use the term “passive subject” to mean the argument that is promoted to the subject position under passivization. In canonical passives, this argument is the direct internal argument in active sentences. I will also refer to “promotion,” although it is not relevant whether passivization takes place in the syntax or at some previous stage of derivation (e.g. a dedicated argument structure module, in the spirit of Babby 2009).

3.1. Passivization as a Test for Structural Case

As discussed in chapter 2, the traditional view of case theory (e.g. Chomsky 1995) is that there are two types of case: structural, licensed by virtue of the structural position of a noun phrase, and non-structural, licensed by a particular lexical item’s selectional properties and/or theta-role assignment. Babby 1994 highlights the shortcomings of this two-way distinction, on the basis of Russian and other languages with rich morphological case marking. He proposes a distinction between two types of non-structural case: lexical, which is a strong selectional requirement of a lexical item (verb, preposition or adjective), and semantic, which is related to the theta role and contributes to the interpretation of the sentence.

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3 The material in this section was first presented in Anderson 2009.
Early work on passivization proposed that one component of this syntactic operation was the absorption of accusative case. This accounted for the fact that the passives of verbs with internal arguments marked with other cases did have agreeing nominative subjects, as shown above in (3) and (4). While I remain agnostic as to the whether passivization is a syntactic or argument structure operation (see Babby 2009 for details on the latter view), it is clear from the data in (1) and (2) that passivization (with an agreeing passive subject) does not rely on accusative case.

This then raises the question as to whether the internal arguments in verbs like those (1) and (2) are marked with a different kind of structural case, or if indeed non-structural case marked internal arguments can become the subjects of passives. I now turn to diagnostics for structural case, and show that the oblique cases on the arguments of the verbs that passivize are in fact instances of non-structural case.

3.1.1. Diagnostics for Structural Case

Babby 1994 shows that a major difference between structural and non-structural case is that the latter cannot be overridden in “case conflicts”. A case conflict is when two potential morphological cases that be assigned to the same noun phrase. There are three examples of such case conflicts which occur with similar results in both Lithuanian and Russian: (i) genitive of negation, (ii) nominalization, and (iii) distributive po.

Both Lithuanian and Russian have genitive in lieu of accusative on internal arguments under verbal negation. In Russian, the genitive is optional, but in Lithuanian, it is a strong requirement, so I only give the Lithuanian data.

(8) Lithuanian genitive of negation:
    a. Jis megsta alų.
        he likes beer:ACC
        ‘He likes beer.’
b. Jis ne-megsta alaus/*alu.
   he NEG-likes beer:GEN /*ACC
   ‘He doesn’t like beer.’

(9) Lithuanian genitive of negation with lexical case:
a. Vaikas padeda mamai.
   child helps mother:DAT
   ‘The child helps the mother.’

b. Vaikas ne-pada da mamai/*mamo.
   child NEG-helps mother:DAT /*GEN
   ‘The child does not help the mother.’

As shown in (9), the dative case cannot be overridden by the genitive required by negation. Only the structural accusative case in (8) can be replaced by genitive.

Similarly, genitive case replaces accusative case under nominalization of verbs in both Russian and Lithuanian\(^4\), as in (10) and (12). This does not occur with verbs that have oblique case marked internal arguments, however, as shown in (11) and (13).

(10) Russian nominalization with accusative verb:
a. čitat’ knigi
   read books:ACC

b. čtenie knig
   reading books:GEN

(11) Russian nominalization with instrumental verb:
a. upravit’ fabrikoj
   manage factory:INST

b. upravlenie fabrikoj/*fabriki
   managing factory:INST/*GEN

---

\(^4\) The word order for objects of verbal nouns differs in Lithuanian and Russian. In Lithuanian, all adnominal modifiers and possessors that occur in genitive come before the noun they modify, as in (12). Note, however, that this is not the case with oblique case verbs, shown in (13)
Lithuanian nominalization with accusative verb:

a. raškoti obuolių
   pick apples:ACC

b. obuolių raškymas
   apples:GEN picking
   ‘the picking of apples’

Lithuanian nominalization with instrumental verb:

a. tikėti ateitimi
   believe future:INST

b. tikėjimas ateitimi/*ateitises
   belief future:INST/*GEN
   ‘belief in the future’

Finally, I turn to distributive *po* in Russian and Lithuanian. In Russian, *po* ‘each’ requires dative case for singular items, and in Lithuanian, *po* ‘each’ requires accusative case.

Russian distributive *po*:

a. S’eli jabloko
   eat:PST.3 apple:ACC.SG
   ‘They ate an apple.’

b. S’eli po jabloku
   eat:PST.3 po apple:DAT.SG
   ‘They ate an apple each.’

Lithuanian distributive *po*:

a. Suvalgė obuolį.
   eat:PST.3 apple:ACC.SG
   ‘(S)he/They ate an apple.’

b. Suvalgė po obuolį.
   eat:PST.3 each apple:ACC.SG
   ‘They ate an apple each.’

In Lithuanian, the accusative case from *po* can replace the genitive, as in (16), but not other lexical cases, as in (17):

Lithuanian distributive *po* with lexical genitive case:

a. Ar norite obuolio?
   Q want:PRS.2.PL apple:GEN.SG
   ‘Do you want an apple?’
b. Ar norite po obuoli?
Q want:PRS.2.PL each apple:ACC.SG
‘Do you want an apple each?’

(17) Lithuanian distributive po with lexical dative case:
   a. Advokatai atstovavo darbininkui.
      lawyers represented worker:DAT
      ‘The lawyers represented a client.’

   b. *Advokatai atstovavo po darbininką.
      lawyers represented po worker:ACC

   c. *Advokatai atstovavo po darbininkui.
      lawyers represented po worker:DAT

In Russian, however, po cannot override any lexical case:

(18) Russian distributive po with lexical instrumental case:
   a. Studenty vladejut innostranym jazykom.
      students know foreign:INST language:INST
      ‘The students know a foreign language.’

   b. *Studenty vladejut po innostranomu jazyku.
      students know po foreign:DAT language:DAT

   c. *Studenty vladejut po innostranym jazykom.
      students know po foreign:INST language:INST

   (Babby 1994: 643)

For all three of these diagnostics, genitive of negation, genitive of nominalizations, and
distributive po, we see a difference in behavior for verbs with accusative case marked arguments,
and verbs with oblique case marked arguments. As the data in sections 3.2.2 and 3.3.2 show,
passivization has quite different results, and therefore I conclude that the ability to passivize is
not a reliable test for structural case assignment in Russian and Lithuanian.

Now, I turn to the details of oblique passivization in Russian, beginning with an overview
of canonical passivization.
3.2. Oblique Passivization in Russian

3.2.1. Passives in Russian

Passive voice in Russian\(^5\) has two means of morphological expression, depending on the aspect of the verb. Imperfective verbs are passivized by means of the suffix \(-sja\), which is also a marker of reflexivity, reciprocity, and decausativization, or a participle\(^6\) formed from the present tense of a verb with the suffix \(-m\), followed by adjectival endings that agree with the passive subject. Perfective verbs, on the other hand, can only form passive participles. The participle is formed from the present tense stem of the verb with the suffix \(-en\), or \(-t\), depending on the morphology of the verb stem, plus adjectival endings. Additionally, past passive participles can be in either the long or short form, like many other adjectives in Russian. Tense is expressed by means of the auxiliary verb \(byt’\) ‘to be’, which is null in the present tense. Reflexive (imperfective) passives can occur in any tense. In (19), the short form of the participle is used, which is only possible in predicate positions.

(19) Kniga byla davno pročita-n-a (studentami).
‘That book was read a long time ago (by the students).’

Both perfective and imperfective passives share many syntactic properties. For both, the agent may be overtly expressed or omitted. If it is expressed, it occurs as in instrumental case. The patient occurs as an agreeing subject. Imperfective passives agree in person and number in present and future tense, and agree in number and gender in the past tense. Past passive participles agree in number and gender in all tenses, and the auxiliary verb agrees with person

\(^5\) All examples in this section will be Russian, unless otherwise indicated
\(^6\) The present passive participle is extremely rare in modern Russian, thus little attention will be dedicated to it explicitly.
and number in present tense, and gender and number in past tense. This agreement is shown above in (19).

Generally, passivization is limited to transitive verbs, that is, those with a direct internal argument. So-called impersonal passives⁷, formed from intransitive verbs, are rare in Russian, and limited to a handful of verbs.

(20) Ne tol’ko direktorm skaza-no, čto sotrudniki ploxo rabotajut. 
not only director:INST say-PST.PASS that employees badly work
‘Not only the manager said that the employees are working badly.’
(Schoorlemmer 1995: 230)

As we will see below, oblique passives in Russian are not impersonal: they have agreeing subjects. I will now discuss in more detail properties of the reflexive passive, followed by issues related to participial passives.

3.2.1.1 Issues with the reflexive passive

The suffix -sja⁸ has many functions aside from imperfective passive formation, many of which go well beyond the scope of this chapter. I will limit this section to the most relevant functions, i.e. those that promote the patient and demote/delete the agent: middle voice and anticausatives.

The primary difference between passives and these two functions of -sja is the possibility of an agentive by-phrase, and the limit on aspect, as only imperfective verbs form the middle through affixation.

There is no dedicated middle voice morphology in Russian, but can be expressed through a reflexive verb in some instances. Thus, there is the possibility for overlap in form for the middle and passive. This is not surprising, as the middle and the passive also have overlap in

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⁷ Impersonal passives are possible in Slavic, particularly in Ukrainian and Polish, but I will focus solely on the canonical agreeing passive. See Lavine 2000 for more details on impersonal passivization in Slavic.

⁸ There are two allomorphs of this suffix: -sja is used after consonants, and -s’ is used after vowels
their function: the middle removes the agent entirely from the event, while the passive demotes
the agent to a peripheral role, and the patient is the grammatical subject. The difference in
meaning is reflected syntactically: passives allow the agent to be expressed, while middles do
not.

    ‘Such books read quickly (*by schoolchildren).’

    b. Takie knigi čitajutsja škol’nikami.
    ‘Such books are ready by schoolchildren’

Although the agent cannot be overtly expressed, there is still an implication that the action
expressed in the middle is performed by an agent, and necessarily a human one. This can be
seen in the ungrammaticality of the emphatic pronoun sam ‘by oneself’ with the middle.

An additional distinguishing factor is that middles, but not passives, may be formed from
both perfective and imperfective verbs:

(22) a. V te vremena, takie knigi bystro prodava-li-s’.
    in those times such books: NOM quickly sell(IMPF)-PST.PL-REFL
    ‘In those times, such books would sell quickly.’

    b. Takie knigi bystro prodalis’.
    such books: NOM quickly sell(PF)-PST.PL-REFL
    ‘Such books sold (out) quickly.’

The other relevant function of the reflexive affix -sja is to form derived unaccusatives
(Babby 2009: 29), as in (23):

(23) a. Oleg otkryl kalitku.
    Oleg closed gate: ACC.F.SG
    ‘Oleg opened the gate.’

    b. Kalitka otkryla-s’ (*Olegom).
    gate: NOM.F.SG closed-REFL Oleg: INST
    ‘The gate opened (*by Oleg).’ (adapted from Babby & Brecht 1975: 342)
Like the middle, but unlike the passive, anticausatives can be either imperfective or perfective. The transitive verb *otkryt’* ‘to open’ is made intransitive through the addition of the suffix *-sja*, and the subject of the intransitive sentence in (23b) corresponds to the object of the transitive sentence in (23a). Unlike passives, anticausatives do not imply any action of an agent or external actor. Rather, the action seems to happen on its own, as seen in the possibility of adding the agentive *sam* ‘oneself’, in (24).

(24) Dver’ otkryla-s’ sama  
Door:F.SG close-REFL self:F.SG  
‘The door closed by itself’

Babby’s (2009) analysis of the affix *-sja* unites the passive, middle and anticausative functions of this suffix. However, the three functions are differentiated by the expression of the agent, stemming from the difference in demotion/dethematization of the external argument under passivization, versus deletion of the external theta role for the middle and anticausative. The passive is also distinguishable from middles and anticausatives in only using *-sja* with imperfective verbs.

Having described the general features of canonical passivization in Russian, I will discuss the details of oblique passivization in the next section.

3.2.2. *Oblique Passives in Russian*

The phenomenon of oblique passivization is not very widespread in Russian⁹. However, Fowler 1996 shows that at least some Russian verbs requiring lexical genitive or instrumental case do in fact passivize. In example (1), repeated here as (25), the presence of an instrumental *by*-phrase shows that this is passive rather than another function of the reflexive verb. In (26b), the participle agrees with the passive subject, showing this is not an impersonal passive.

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⁹ All examples in this section will be Russian, unless otherwise indicated.
(25) a. Borisov upravljaet fabrikoj
Borisov manages factory.INST
‘Borisov manages the factory’

b. Fabrika upravljaetsja Borisovym
factory.NOM manage-SJA Borisov.INST
‘The factory is managed by Borisov’ (Folwer 1996: 519)

(26) a. Oni dostigli svoix celej.
    they achieved self’S GEN goals. GEN
‘They achieved their goals.’

b. Cel’ byla dostignu-t-a.
    goal.FEM.NOM was achieve-PST.PASS-FEM
‘The goal was achieved.’ (adapted from Fowler 1996: 528)

According to Fowler, oblique passivization is indeed limited to genitive and instrumental, and verbs that require dative case on their internal arguments cannot passivize, shown in (27):

(27) a. Ego svedenija sootvetstvujut dejstvitel’nosti.
    his information correspond reality.DAT
‘His information corresponds to reality.’

b. *Dejstvitel’nost’ sootvetstvujetsja ego svedenijami.
    reality.NOM correspond-SJA his information.INST
*‘Reality is corresponded to by his information.’ (Fowler 1996:529)

Fowler does note that some instances of Dative passives can be found in 18th century literature, although he suggests they may have been artificially created to model French.

However, Richardson (2007) gives an example of Dative passivization, shown here in (28):

(28) a. Sigarety povredili zdorov’ju Ivana
    cigarettes damaged health.DAT Ivan.GEN
‘Cigarettes damaged Ivan’s health’

b. Zdorov’je Ivana bylo povrežde-n-o (sigaretami)
    health.NOM.N.SG Ivan.GEN was damage-PST.PASS-NEU.SG cigarettes.INST
    ‘Ivan’s health was damaged (by cigarettes).’ (Richardson 2007:32)

Fowler’s example in (27) may be ungrammatical because of the verb sootvetstvovat’ ‘to correspond’. The translation in English is also not very felicitous. This verb is stative, which
likely accounts for the inability to passivize, rather than the case of the internal argument. Many stative verbs, such as *znat’* ‘to know’, which has an accusative object, do not passivize in Russian.

Fowler (1996) concludes “that transitivity is a necessary, but not sufficient condition for passivization” (532). Thus he accounts for accusative governing verbs that cannot passivize, although they are transitive, and for non-accusative governing verbs that also cannot passivize, such as *torgovat’* ‘to trade (in)’, which are intransitive. For these oblique-case verbs, the lexical case marked NP would be considered an adjunct, not a direct internal argument. This fits with the traditional view of transitivity found in Russian grammars, which holds that accusative internal arguments are direct objects, and verbs that govern the accusative are transitive. Conversely, non-accusative NPs are not objects, and these verbs are not transitive. As evidenced by the availability of oblique passivization for some non-accusative verbs, this definition is too narrow. Rather, a view of transitivity that encompasses more than morphological case marking is needed.

Such a view of transitivity is discussed in Dowty (1991) through the examination of arguments with the patient thematic role. Dowty identifies prototypical features of patients, shown in (29).

(29) Contributing properties for the Patient Proto-Role:
   a. undergoes a change of state (coming into or going out of existence)
   b. incremental theme
   c. causally affected by another participant in the event
   d. stationary relative to movement of another participant
   (e. does not exist independently of the event, or at all)

Internal arguments can have more or fewer of these features, making them more or less prototypical patients. Verbs can then have accusative case marked internal arguments that are relatively low on the proto-patient scale, making them transitive in one sense (case marking), but
not in another (few or no features of patienthood). Transitivity, as discussed in Kittilä 2002, does not have a straightforward definition, particularly cross-linguistically. Given the broadness of the notion of transitive, Fowler 1996 concludes, transitivity itself cannot explain why some oblique case marking verbs can passivize, while others do not.

By comparing the verbs that license accusative case which do not passivize with those that license oblique cases but do passivize, Fowler examines two other components of the verbs that may account for these differences: affectedness and telicity. These two features interact, and the various combinations of these semantic aspects account for passivization. Verbs like znat’ ‘know’ and videt’ ‘see’ are atelic stative predicates, meaning there is no natural end point (telos), and there is no internal variation in the event described by the verb. The perfective verbs uznat’ ‘see’ and uvidet’ ‘see’ are dynamic, telic predicates: the predicate describes an internal change of state and there is a natural end point. However, these verbs also do not passivize, and thus telicity is not relevant\textsuperscript{10} to passivization in Russian.

The internal arguments of the verbs znat’ ‘know’ and videt’ ‘see’ are unaffected patients, meaning that there is no action directly carried out on the object. In comparison to the verbs that do passivize, however, these objects can be seen as affected, as Fowler concludes. This lines up with the notion of Proto-Patient in Dowty (1991), which will be examined more fully in the discussion of accusative/instrumental case alternations in chapter 4.

There are some gaps in the ability of oblique case marking verbs to passivize. Many verbs are stative and atelic, lacking even perfective counterparts, and furthermore do not have affected patients. For example, the verbs vedat’ ‘manage, be in charge of’ is inherently stative, and does not imply the active involvement of the agent the way that the verb rukovodit’ ‘lead,  

\textsuperscript{10} It is quite possible for languages to vary in which features are relevant to passivization, as Fowler notes. English, for instance, allows certain stative verbs such as own to passivize, but not others, such as have.
guide, direct’ does (Fowler 1996: 534-5). Other gaps, such as the verb torgovat’ ‘to trade’, are due to the fact that the instrumental NP is often excluded, and as Fowler proposes, is an adjunct rather than an argument.

To conclude, the basic facts of oblique passivization in Russian are not remarkably different from the passivization of accusative case marking verbs. In order to passivize, a verb must have an internal argument; adjuncts do not get promoted to the subject of a passive predicate. Furthermore, this internal argument must be an affected patient, meaning that it must undergo some change from the action described by the verb. I assume that the Proto-Patient features laid out in Dowty (1991) are an accurate description of affected patients, although individual predicates will vary in the exact features. In section 3.5.2, I will discuss the structural differences of affected and unaffected patients, and show how they occupy different positions in the vP. Now, I turn to oblique passivization in Lithuanian.

3.3. Oblique Passivization in Lithuanian

3.3.1. Passive in Lithuanian

In Lithuanian\(^{11}\), passives are always expressed by a participle. There are two passive participles: traditionally referred to as present and past. However, as will be seen below, the tense of a passive sentence depends on the tense of the auxiliary verb, thus Geniušienė 2006 refers to the present passive participle as the non-perfect, and the past passive participle as the perfect. I will stick to the tense-based names for the participles, for easy comparison with the discussion of Russian above. The present passive participle is formed from the third-person present tense form of the verb\(^{12}\), with the suffix -m-, followed by agreement suffixes. The past passive participle is

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\(^{11}\) All examples in this section will be from Lithuanian, unless otherwise indicated.

\(^{12}\) In Lithuanian, all verbs have the same form for third-person singular and plural in the simple tenses. In the periphrastic tenses, there is number agreement on the participle.
formed from the infinitival root, with the suffix -t- followed by agreement suffixes. Both participles are marked for number and gender, and agree with the noun that serves as the grammatical subject, typically the patient argument: -as for masculine singular, -a for feminine singular. Additionally, there is a non-agreeing form, which is orthographically identical to the feminine singular, used in impersonal passives (as well as the evidential). Passive sentences can occur with the auxiliary verb būti ‘to be’, although it is often omitted in the present tense. The agent is optionally expressed in genitive case\textsuperscript{13}, most frequently before the participle (Geniušienė 2006: page). Examples are shown in (30).

(30)  
\begin{enumerate}
\item a. Jonas stat-ė namą.


Jonas:NOM build-PST.3 house:ACC.SG

‘Jonas was building a house.’

\item b. Namas (yra) Jono stato-m-as.


house:NOM.M.SG (be:PRS.3) Jonas:GEN build-PRS.PP-NOM.M.SG

‘The house is (being) built by Jonas.’

\item c. Namas (yra) Jono (pa)staty-t-as.


house:NOM.M.SG (be:PRS.3) Jonas:GEN (prf)-build-PST.PP-NOM.M.SG

‘The house has been built by Jonas.’
\end{enumerate}

Geniušienė (2006) provides a detailed description of the main uses of passive participles in Lithuanian. She also distinguishes between three types of passives: actional (verbal) passives, statal (adjectival) passives, and evidential passives. This last type, which differs greatly from the first two, has been the subject of much research (e.g. Timberlake 1982, Lavine 2000, Lavine 2010b, \textit{inter alia}), but is beyond the scope of this chapter. I will discuss the differences between verbal and adjectival passives below, and focus on verbal passives for now.

\textsuperscript{13} With the exception of first-person and second-person singular pronouns, which do not occur in genitive case (\textit{manęs} ‘of me’, \textit{taveš} ‘of you (sg.)’, but rather the possessive forms (\textit{mano} ‘my’ and \textit{tavo} ‘your (sg.)’).
In the Lithuanian passive, either the present or past passive participle may be used. However, it is not the case that the tense of the active sentence necessarily corresponds to the tense of the passive participle, due to the complex tense-aspect system of Lithuanian verbs. As in the Slavic languages, Lithuanian verbs may be perfective or imperfective. Generally, perfective verbs are prefixed forms of imperfective verbs. In addition, there are non-perfect (simple) and perfect (periphrastic) tenses. For each of the four tenses, there are two active forms, and two passive forms, for a total of sixteen possible forms. These are shown in Tables 1 and 2, for the verb *(pa)daryti* ‘to do’. The imperfective verb lacks the prefix *pa-* , which occurs on the perfective verb.

Table 1. Active tense forms of *(pa)daryti* ‘to do’.

<table>
<thead>
<tr>
<th>Tense</th>
<th>Simple tense (= non-perfect)</th>
<th>Periphrastic Tense (= perfect)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Imperfective</td>
<td>Perfective</td>
</tr>
<tr>
<td>Present</td>
<td>daro ‘is doing’</td>
<td>padaro ‘does (from time to time)’</td>
</tr>
<tr>
<td>Past</td>
<td>darė ‘was doing’</td>
<td>padarė ‘did’, ‘has done’</td>
</tr>
<tr>
<td>Past freq.</td>
<td>darydavo ‘used to be doing’</td>
<td>padarydavo ‘used to do’</td>
</tr>
<tr>
<td>Future</td>
<td>darys ‘will be doing’</td>
<td>padarys ‘will do’</td>
</tr>
</tbody>
</table>
Table 2. Passive forms of (pa)daryti ‘to do’.

<table>
<thead>
<tr>
<th>Tense</th>
<th>Present passive (= non-perfect)</th>
<th>Past passive (= perfect)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Imperfective</td>
<td>Perfective</td>
</tr>
<tr>
<td>Present</td>
<td>(yra) daroma ‘is being done’</td>
<td>(yra) padaroma ‘is (being) done’</td>
</tr>
<tr>
<td>Past</td>
<td>buvo daroma ‘was being done’</td>
<td>buvo padaroma ‘was (being) done’</td>
</tr>
<tr>
<td>Past freq.</td>
<td>budavo daroma ‘used to be being done’</td>
<td>budavo padaroma ‘used to have been being done’</td>
</tr>
<tr>
<td>Future</td>
<td>bus daroma ‘will be being done’</td>
<td>bus padaroma ‘will be (being) done’</td>
</tr>
</tbody>
</table>

Table 2 shows that both types of passive participles (present and past) can be formed from both aspecual values of verbs (imperfective and perfective verbs). Present passive participles (with -m-) indicate simultaneity with the moment of speech, or duration, while past passive participles (with -t-) indicate completion, and anteriority to the moment of speech. Consider the differences in (31):

(31)  
a. buvo pastato-m-as  
     was build-PRS.PASS-M.SG  
     ‘was built’

b. buvo pastaty-t-as  
     was build-PST.PASS-M.SG  
     ‘(was/had been) built’

While active and passive sentences may denote the same situation in the world, they may differ in their tense-aspect meanings. There is not always a one-to-one correspondence between active and passive verb forms. The tense-aspect relations of active and passive perfective verbs are shown in Table 3. The arrows indicate the forms are equivalent. All of the perfect active participles are masculine singular, and all passive participles are non-agreeing (impersonal).
As table 3 shows, active and passive forms that are morphologically related (e.g. 2a and 2p) may not be semantically related. The lack of correlation between 2a and 2p and between 4a and 4p is due to a conflict between the perfective verb and the present (non-perfect) passive participle. However, this is not the case for imperfective verbs: darė ‘did, was doing’ corresponds to the present passive buvo daroma ‘was (being) done’. Additionally, one active form may correspond to multiple passive forms: 2a corresponds to 1p’ and 2’. A single passive form may correspond to more than one active form: 1p’ corresponds to both 1a’ and 2a.

Table 3. Semantic relations in the active-passive paradigm (Geniušienė 2006: 35)

<table>
<thead>
<tr>
<th>Tense</th>
<th>Voice</th>
<th>a. Non-perfect active</th>
<th>a’. Perfect active</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>p. Passive in -m-</td>
<td></td>
<td>p’. Passive in -t-</td>
</tr>
<tr>
<td>1. Pres.</td>
<td>Active</td>
<td>padaro ‘does (from time to time)’</td>
<td>1a.</td>
</tr>
<tr>
<td></td>
<td>Passive</td>
<td>(yra) padaroma ‘(is) (being) done’</td>
<td>1p.</td>
</tr>
<tr>
<td>2. Past</td>
<td>Active</td>
<td>padarė ‘did’, ‘has done’</td>
<td>2a.</td>
</tr>
<tr>
<td></td>
<td>Passive</td>
<td>buvo padaroma ‘was (being) done’</td>
<td>2p.</td>
</tr>
<tr>
<td>3. Past freq.</td>
<td>Active</td>
<td>padarydavo ‘used to do’</td>
<td>3a.</td>
</tr>
<tr>
<td></td>
<td>Passive</td>
<td>buðavo padaroma ‘used to be done’</td>
<td>3p.</td>
</tr>
<tr>
<td>4. Fut.</td>
<td>Active</td>
<td>padarys ‘will do’</td>
<td>4a.</td>
</tr>
<tr>
<td></td>
<td>Passive</td>
<td>bus padaroma ‘will be (being) done’</td>
<td>4p.</td>
</tr>
</tbody>
</table>

The present passive is used to a much greater extent in Lithuanian than in Russian. As described above, Russian typically uses the reflexive enclitic to express passivization with imperfective verbs. In Lithuanian, however, this is not the case. While reflexivization is
morphologically similar between Lithuanian and the Slavic languages, and many functions overlap (e.g. true reflexives, reciprocals), reflexives are never passive in Lithuanian. This can be shown by the inability to express an agent with a reflexive verb.

    Jonas:NOM PRF-open:PST.3 door:ACC
    ‘Jonas opened the door.’

b. *Durys Jono at-si-darë.
    door:NOM Jon:GEN PRF-REFL-open:PST.3
    Intended: The door was opened by Jonas

In summary, there is a large number of potential passive tense-aspect combinations, but in actuality, few of them are regularly found. The most common combinations of aspect and passive participles are those that match for (im)perfectivity: the past (“perfect”) participle was found 87% of the time with a perfective verb in Geniušienė’s (2006) corpus study, and the present (“imperfect”) participle was found 71% of the time with an imperfective verb. In addition, these two passive participle differ in the type of passive (i.e. stative vs. actional) that they can express, as will be discussed in section 3.4. Now, I turn to other relevant factors of passivization in Lithuanian: argument structure relations, expression of the agent, and expression of the patient.

3.3.1.1 Argument Structure Relations in Passives

As shown above in Table 2, passives are semantically equivalent to active sentences, in the sense that both types of sentences can describe the same eventuality. The difference is one of voice, which involves a change in the argument relations, for pragmatic or information structural reasons. The agent is demoted or deleted, and the patient is usually promoted to the subject position. Thus, the passive serves to highlight the patient, making it more prominent in the discourse, or to highlight the event denoted by the verb. Passive sentences in Lithuanian are
considered more expressive than actives, and may be used in discourse for emphasis (Geniušienė 2006).

3.3.1.2 Expression of the Agent

Actional passives allow the expression of the agent, but it is not obligatory. If present, the agent appears in genitive case. Non-human agents must be expressed, as in (33):

(33) a. Lauke medžiai ošia.
    field:LOC tree:NOM.PL rustle:PRES
    ‘Outside, trees are rustling.’

b. *Lauke ošia-m-a
    field:LOC rustle-PRS.PASS-[-AGR]
    Intended: Outside, there is rustling.

A human agent may be omitted for the several reasons, outlined in Geniušienė 2006: (i) the agent is irrelevant or unknown, of little importance to the discourse, or its expression would be redundant:

(34) Puol-usi žmona užčiaupė jam burną, bet
    rush-PST.ACT.NOM.SG.F wife:NOM close:PAST he:DAT mouth:ACC but
    Žodžiai jau buvo pasaky-t-i ir niekas
    word:NOM.PL.M already were say-PST.PASS-PL.M and no one
    ne-galėjo jų iš galvos išmesti.
    NEG-can:PST they:GEN from head:GEN throw.out:INF
    ‘(His) wife rushed up to him and pressed his mouth closed but the words had already been uttered and no one could throw them out of his head.’
    (Geniušienė 2006: 42)

(ii) naming the agent is avoided as a means of “authorial modesty”:

(35) ... šiame darbe ir norė-t-a patyrinė-ti ...
    this:LOC work:LOC and want-PST.PASS-[-AGR] investigate-INF
    kalbos struktūrą.
    language:GEN structure:ACC
    ‘...in this work it was desired to investigate... the structure of language.’
    (Geniušienė 2006: 42)

(iii) if the agent is human, it may be omitted to denote indefiniteness or is not recoverable from the context (such instances correspond to impersonals):
(36)  a. Dukart buvau sužeis-t-as, kontūzy-t-as.
    twice was:1SG wound-PST.PASS-M.SG shell.shock-PST.PASS-M.SG
    ‘I was twice wounded, shell-shocked.’

    ≈  b. Mane dukart sužeidė ...
        me:ACC twice wound:PST
        ‘(They) wounded me twice...’
        (Geniušienė 2006: 42)

(iv) generalized agents may be omitted in the meaning of ‘one, everyone, all people’:

(37)  Greit jis pamirš tai, kaip beveik viskas pamiršta-m-a
    fast he forget:FUT that as almost everything forget-PRS.PASS-[AGR]
    pasaulyje.
    world:LOC
    ‘He will soon forget it, as almost everything is [usually] forgotten in this world.’
    (Geniušienė 2006: 43)

The relative order of the agent and participle (and promoted patient-subject) depend on which element is meant to be highlighted: the action or the promoted subject.

3.3.1.3 Expression of the Patient-Subject

While the most typical passive sentence will have the patient promoted to a nominative subject that agrees with the participle in number and gender, this is not always the case with Lithuanian passives. Geniušienė (2006) identifies several situations in which the patient is not promoted: (i) to emphasize the action denoted by the verb, (ii) the verb is intransitive and there is no patient to promote. The latter situation results in an impersonal passive, which necessarily has a non-agreeing suffix. Such passives can be found with verbs with optional internal arguments, or infinitival complements, shown in (38) and (39).

(38) Čia ne-rūko-m-a.
    here NEG-smoke-PRS.PP-[AGR]
    ‘No smoking here.’

14 These impersonal passives have received wide discussion in the literature. See Blevins 2003 and Wiemer 2006 for more on these passives in Lithuanian.
15 Historically, the –ma/-ta ending on these passive participles is neuter. This gender has been lost in modern Lithuanian, and following Lavine (2000), I gloss it as a dedicated non-agreeing suffix.
When there is a accusative patient that is not promoted, it serves to highlight the action. Generally, the agent is not expressed, but is interpreted as a generalized human agent, as in (40):

(40) ... muša-m-a vaiką tada, kai ne-žino-m-a, 
    beat-PRS.PASS-[AGR] child:ACC then when NEG-know-PRS.PASS-[AGR] 
    kas dary-ti. 
    what do-INF 
    ‘... one beats the child (= the child is beaten) when one does not know what to do.’ (in Geniušienė 2006: 45)

Another instance in which a patient is not promoted can be seen in (41). Here, the internal argument is optionally marked with genitive case to indicate indefiniteness. This case is retained with the passive to highlight the indefiniteness, in (41b). By comparison, the promoted, nominative subject in (41c) has a definite interpretation, shown in the English translations.

(41) a. Mes laukėme svečius / svečių.
    we waited guests:ACC / guests:GEN 
    ‘We waited for (the) guests / some guests.’

    b. Buvo laukia-m-a svečių
    were wait-PR.PASS-[AGR] guests:GEN.PL 
    ‘Some guests were (being) awaited.’

    c. Buvo laukia-m-i svečiai.
    were wait-PR.PASS-M.PL guests:NOM.PL 
    ‘The guests were (being) awaited.’ (Geniušienė 2006:38)

Finally, it is worth noting that some stative verbs also seem to passivize (cf. the discussion above regarding passivization of stative verbs in Russian). This can be seen in here with the verb sverti ‘weigh’ in (42).

(42) a. Višta sveria du kilogramus.
    hen:NOM weighs two kilograms:ACC 
    ‘The hen weighs two kilograms.’
b. Vištos sveria-m-a du kilogramai/kilogramus.
   hen:GEN  weigh-PR.PASS-[AGR]  two  kilograms:NOM/ACC
   ‘The weight of the chicken is two kilograms.’ (Ambrazas 2006:281)

There are some notable issues with this example. The word order is like that found with evidential uses of passive participles, with the agent at the beginning and the internal argument at the end. Also like the evidential, the participle is non-agreeing, and yet the nominative is possible. However, the present participle shown in (42) is relatively rare for the evidential. This example highlights the relatively broad function of passive participles in Lithuanian, particularly when compared to the relatively restrictive Russian passive participle.

Having examined canonical passivization in Lithuanian, I now turn to the ability of oblique case marking verbs to passivize as well. With comparison to Russian oblique passivization, we will see that this phenomenon is more widespread in Lithuanian.

3.3.2. *Oblique Passives in Lithuanian*

Much like in Russian, a number of Lithuanian verbs mark their internal arguments with a case other than accusative. Sometimes the particular case used is obvious, such as the locative case with the verb *gyventi* ‘live’, while others are less transparent, such as the dative case with the verb *vadovauti* ‘to manage’. Note that the equivalent verb in Russian takes instrumental. The majority of oblique case marking verbs that can passivize require either dative case, as shown above in (2), repeated here as (43), or genitive case, shown in (44). Very few, if any, have instrumental or locative case.

(43) a. Jonas vadovauja fabrikui.
   Jonas:NOM  manages  factory:DAT
   ‘Jonas manages the factory.’

   b. Fabrikas buvo Jono vadovauja-m-as.
      factory:NOM.M.SG  was  Jonas:GEN  manage-PRS.PASS-M.SG
      ‘The factory was managed by Jonas.’
As I will discuss below, some of the promoted subjects in passives are difficult to classify as argument or adjunct, as in the case of the locative NP promoted to subject in (45):

(45)  a. Žvėrys gyvena urvuose.
beasts:NOM live:PST burrows:LOC
‘Beasts live in burrows’

b. Urvai yra žvėrių gyvena-m-i.
burrows:NOM.M.PL are beasts:GEN live-PR.PASS-M.PL
‘The burrows are inhabited by beasts’ (Ambrazas 2006: 278-9)

Below, I will examine other examples of passive subjects whose status as argument or adjunct is not entirely clear.

In some instances, a prepositional phrase argument can be promoted, without the preposition, to the passive subject, as shown in (5) above, repeated here as (46).

(46)  a. Jis atsakė į klausimą.
he:NOM answer:PST to question:ACC
‘He answered the question.’

b. Klausimas jo yra/buvo atsaky-t-as.
question:NOM.M.SG he:GEN is/was answer:PST.PASS-M.SG
‘The question was answered by him.’ (K. Lenartaitė, p.c.)

One notable exception in oblique passivization is that verbs requiring instrumental case on their internal arguments appear not to passivize:

(47)  a. Lietuva prekiauja gintaru.
Lithuania trade:PRS amber:INST
‘Lithuania trades (in) amber.’
b. *Gintaras Lietuvos prekiauj-ja-m.as.
   Amber:NOM.M.SG Lithuanian:GEN trade-PRS.PASS-M.SG
   ‘Amber is traded by Lithuania.’

(48) a. Jis tikrai tiki savo teisumu.
    He truly believe:PRS REFL justice:INST
    ‘He truly believes in his justice.’

b. *Jo teisumas buvo visų tikė-t-as.
    His justice:NOM.M.SG was everyone:GEN believe-PST.PASS-M.SG
    ‘His justice was believed by everyone.’

Note that the verb in (47), prekiauti ‘trade (in)’, like its Russian counterpart, torgovat’ ‘trade (in)’, may be structurally intransitive, and the instrumental NP in the active sentence in (47a) may be an adjunct.

However, the example in (49) seems to have just such an example of an instrumental internal argument being promoted to the subject of a passive:

(49) a. Seniau žmonės tikėjo dievais.
    formerly people:NOM believe:PST god:INST
    ‘In former times people believed in gods’

b. Dievai seniau buvo tiki-m-i žmonių.
    god:NOM.M.PL formerly were believe-PR.PASS-M.PL people:GEN
    ‘In former times gods were believed in by people’ (K. Lenartaitė, p.c.)

However, this example may be misleading. The verb tikėti ‘believe’ can have either instrumental arguments, as in (48) and (49), but for supernatural beings, the accepted case in the standard, literary language\(^{16}\) is accusative. It is difficult to be certain what the underlying case of a promoted passive subject was in the active counterpart. A search in the online version of the

\(^{16}\) The Lithuanian Language Commission has an article on this difference in usage that also highlights non-standard usage of dative case and a prepositional phrase with į ‘in’ + accusative

(http://www.vlkk.lt/lit/4060)
national Lithuanian corpus\textsuperscript{17} for passives participles from *tikėti* ‘believe’ resulted in no agreeing passive participles that did not have a supernatural being as the agreeing subject.

No other verbs that require instrumental seem to undergo passivization in the same way that the verbs that require other oblique cases do. However, somewhat surprisingly, there are two instances of instrumental NPs become agreeing subjects under passivization, although it is not entirely clear if these are arguments or adjuncts, as I will discuss below in the following section.

As mentioned in the previous section on Lithuanian canonical passivization, some verbs allow either agreeing passive with nominative or non-agreeing with case retention. This was shown for accusative case marking verbs above in (40), and is shown here for oblique case marking verbs in (50).

(50) a. Tėvai liepė jam dirb-ti.
    parents:NOM ordered him:DAT work-INF
    ‘(His) parents ordered him to work.’

b. Jis buvo tėvų liep-t-as dirb-ti.
    he:NOM was parents:GEN order-PST.PASS.M.S.G work-INF
    ‘He was ordered by his parents to work.’

c. Jam buvo tėvų liepta dirb-ti.
    he:DAT was parents:GEN order-PST.PASS-[\textit{-AGR}] work-INF
    ‘He was ordered by his parents to work.’ (Ambrazas 2006: 278-9)

Either the dative argument can be promoted to an agreeing subject in the passive, as in (50b), or the dative case can be retained, and the passive participle is non-agreeing, as in (50c).

Similarly, multiple internal arguments can be promoted under passivization. The example below in (51) shows that the verb *prašyti* ‘to ask for’ has two internal arguments: the person being asked is marked with accusative case, and the object being requested is marked with genitive case. Either can be promoted to the subject under passivization.

\textsuperscript{17} http://tekstynas.vdu.lt/
(51) a. Berniukas prašė mokytoją knygos.
   Boy:NOM asked teacher:ACC book:GEN
   ‘The boy asked the teacher for a book.’

   b. Mokytojas buvo (berniuko) prašo-m-as knygos.
      teacher:NOM.M.SG was (boy:GEN) ask-PR.PASS-M.SG book:GEN
      ‘The teacher was asked (by the boy) for a book.’

   c. Knyga buvo (berniuko) prašo-m-a.
      book:NOM.F.SG was (boy:GEN) ask-PR.PASS-F.SG
      ‘The book was requested (by the boy).’ (Ambrazas 2006: 279)

In addition to oblique passive with the promotion of direct internal arguments (which I here take to include Patients and Themes) to agreeing subjects, there are some instances of other elements becoming the passive subject, as discussed in Lenartaitė (2009: 74-5). Such elements may be adjunct-like, but the line between argument and adjunct status is not always clear, as discussed above regarding the Lithuanian verb *prekiauti* ‘trade (in)’ and the Russian counterpart *torgovat* ‘trade (in)’. A fail-proof test for argument- or adjunct- hood has not, to the best of my knowledge, been found for any language, and thus I put this issue aside.

Regardless of the status of the instrumental NPs in the examples in (52) and (53) below, these examples show two instances of an instrumental element becoming an agreeing passive subject.

(52) a. Tu valgai šituo šaukštu.
   you:NOM eat:PRES this:INST spoon:INST
   ‘You are eating with this spoon.’

   b. Šis šaukštas tavu valgo-m-as.
      this:NOM.M.SG spoon:NOM.M.SG you:GEN eat-PR.PASS-M.SG
      ‘This spoon has been eaten with by you.’ (Jablonskis 1997: 132)

(53) a. Žmonės šituo keliu dabar ne-be-važiuoja.
   people this:INST road:INST now NEG-CNT-drive
   ‘People don’t drive on this road anymore’
b. Šitas kelias dabar (žmonių) ne-be-vaižiuoja-m-\(\text{as}\)  
\(\text{this:NOM road:NOM.M.SG now (people:GEN) NEG-CNT-drive-PASS-M.SG}\)  

In addition to instrumental, locative NPs can also become passive subjects, as shown above in (45). However, not all locative NPs can be promoted under passivization:

(54) a. Upėje maudė-si vaikai.  
\(\text{river.LOC bathed-REFL children.NOM}\)  
‘In the river, children bathed.’

b. Upėje buvo maudo-m-a-si (vaikų)  
\(\text{river.LOC was bath-PR.PASS-[\text{-AGR}]-REFL (children.GEN)}\)  
‘In the river, bathing was (being) done (by children).’ (Geniušienė 2006: 39)

Rather, the case is retained, and the non-agreeing passive participle is used in (54). This is, however, confounded by the fact that this is a reflexive verb. Still, on the basis of examples like (52) and (53), we can conclude that not only direct internal arguments can become passive subjects in Lithuanian.

Conversely, not all such arguments can be promoted. As discussed in section 3.3.1, some internal arguments retain their case for semantic or discourse purposes. In the following section, I discuss the tense/aspect restrictions on oblique passivization.

3.3.2.1 Restrictions on Lithuanian Oblique Passivization

Previously, I had proposed (Anderson 2009) that the only oblique case marking verbs that could passivize were those that had lexical case on their internal arguments, that is, the particular morphological case was not due to the theta role. However, new data brought to my attention by Kristina Lenartaitė (p.c.) indicates that this is not the case. However, her data do highlight a different restriction on the ability of oblique case marking verbs to passivize with the internal argument promoted to an agreeing subject: the passivization of such verbs is much more felicitous if the present participle, rather than past participle, is used.
These examples are representative of facts for many other oblique verbs that allow passivization.

In section 3.2.2 above, I discussed the analysis of Russian oblique passives by Fowler (1996), and the question of the influence of verbal aspect on the ability of a verb to passivize. For Lithuanian, we see that there is also a question of such influence, given the grammaticality of the passives in (55) and (56). The present passive participle, shown in the (b) sentences above, indicates simultaneity with the moment of speech or duration, while the past passive participle, shown in the (c) sentences above, indicates anteriority to the moment of speech or completion.

All of the verbs that undergo oblique passivization are inherently atelic: there is no natural end point to the events that they describe. However, this does not mean that they are inherently stative, as there is some change that occurs as the events described by the verbs progress. Because these oblique case marking verbs are all atelic, and the past passive participle
implies completion, there is an inherent mismatch, accounting for the unacceptability of past passive participles.

There are some exceptions, namely (50) above, which is given with the perfective participle. However, this verb also allows for the case to be retained, so it may be exceptional in other ways. Furthermore, as we shall see below in section 3.4, the past passive participle can also be used as a statal participle, more like an adjective than the actional, verbal passive.

The oblique case marking verbs that can be passivized have another feature in common: the internal arguments are affected patients. Arguably, this is not relevant for canonical passives, based on the existence of impersonal passives formed from verbs that lack internal arguments entirely. However, this can account for why some oblique verbs can passivize, while others cannot. For instance, the locative NP of gyventi ‘live’ can be promoted to the subject of the passive, as in (45) above, while the locative NP of maudėtis ‘bathe’ in (54) cannot. A place can be changed or affected in some way by being lived in, while a river is not necessarily affected by children bathing in it. Additionally, this accounts for why some adjunct-like NPs can become passive subjects. In (52), the sentence can be interpreted as implying that something has happened to the spoon because it was eaten with (e.g. now it’s dirty). In section 3.5.2, I will show how affected patients occupy a different position in the syntactic structure, accounting for the ability of oblique case marking verbs to passivize.

In this section, I examined canonical and oblique passives in Lithuanian. At the beginning of section 3.1, I indicated that there were additional functions of Lithuanian passive participles aside from purely passive sentences. While I will not discuss the evidential function of passive participles, I will turn to the difference between actional, or verbal, passives and statal,
or resultive passives. This distinction holds not only for Lithuanian passive participles, but for Russian, among other languages, as well.

3.4. Types of Passives

In addition to occurring in passive sentences, passive participles are also used as adjectives in Russian (Knjazev 1989, Schoorlemmer 1995, Babko-Malaya 1999), Lithuanian (Geniušienė 1973, 2006), and many other languages, including English (Wasow 1977, Williams 1981, *inter alia*). This creates an issue in analyzing sentences with these participles, because rather than describing the event, the participle can describe a result held by the promoted subject. The difference can be seen in the example below:

(57) Types of passives:
   a. Actional passive: The radio was turned on by the nurse.
   b. Statal passive: The radio was (already) turned on when I came in.

In (57a), there is an action being done to the radio, described by the passive participle, whereas in (57b), the passive participle describes a state held by the radio.

These two functions have various names in the literature (‘true’ vs. ‘stative’ in Palmer 1994, ‘syntactic’ vs. ‘adjectival’ in Schoorlemmer 1995, ‘verbal’ vs. ‘adjectival’ in Babko-Malaya 1999, ‘actional’ vs. ‘statal’ in Geniušienė 2006). Following Geniušienė 2006, I will use the terms ‘actional’ to describe the non-adjectival functions of passive participles, and ‘statal’ to describe the adjectival use of passive participles.

In this section, I will discuss the difference in meaning of the two functions of passive participles, and several diagnostics for determining the type, for both Russian and Lithuanian. Finally, I will present evidence from Babko-Malaya (1999) that passive participles from oblique case marking verbs in Russian cannot form stative passives, and apply her proposal to Lithuanian.
3.4.1. Semantic Functions of Actional and Statal Passives

Actional passives denote the same situation as their active counterparts, and can be considered semantically equivalent. The only difference in meaning is that the passive serves to highlight either the patient or the action, and/or demote (or remove entirely) the agent. This can be seen in the active sentences in (58a) and (58c) and their passive counterparts in (58b) and (58d). The pairs are equivalent in the sense that they describe the same eventuality. Thus, as Geniušienė (2006) claims, actional passives involve a change in the theme-rheme structure of the active.

(58) Lithuanian actional passive:
   a. Petras atveria langą.
      Peter:NOM opens window:ACC
      ‘Peter is opening the window.’

   b. Langas (yra) atveria-m-as (Petro).
      window:NOM.M.SG (is) open-PR.PASS-M.SG (Peter:GEN)
      ‘The window is being opened (by Peter).’

   c. Petras buvo atvér-ęs langą
      Peter:NOM.M.SG was open-PR.ACT.M.SG window:ACC
      ‘Peter had opened the window.’

   d. Langas buvo atver-t-as (Petro)
      window:NOM.M.SG was open-PST.PASS-M.SG (Peter:GEN)
      ‘The window was opened (by Peter).’ (Geniušienė 2006: 30)

Stative and evidential passives, on the other hand, involve a change in the denotational meaning, vis a vis their active counterparts. Stative passives describe a result held by the entity that they modify (= “object-oriented resultatives, Geniusiene 2006: 31), shown in (59):

(59) Lithuanian statal passive:
   a. Petras atverė langą.
      Peter:NOM opened window:ACC
      ‘Peter opened the window.’

   b. Langas (yra) (vis dar) atver-t-as (*Petro).
      window:NOM.M.SG (is) (still) open-PST.PASS-M.SG (Peter:GEN)
      ‘The window is (still) opened (*by Peter).’ (Geniušienė 2006: 31)
Despite these differences in meaning, there are instances when a passive is ambiguous for actional or statal, as seen in the example below from Knjazev (1989: 10):

(60) Russian ambiguous passive:
    V tu dver’, čto vela v kuxnju, bylo postavl-en-o
    to that door that led to kitchen was place-PST.PASS-NEU.SG
    matovoe steklo.
    matte.NEU glass.NEU
    ‘On the door that led to the kitchen was placed frosted glass.’

The passive participle postavleno ‘placed’ in (60) can be interpreted as a state, describing the features of the door, or as an action, describing a change that happened to the door.

3.4.2. Syntactic Behaviors of Actional and Statal Passive Participles

In addition to a difference in meaning, actional and statal passive participles also have different syntactic behaviors. First and foremost, not all passives are capable of receiving a statal interpretation. For Russian, only passive participles, not the imperfective reflexive passivized verbs, can be used as either actional or statal. For Lithuanian, only past passive participles can be used as actional or statal. Thus, we can eliminate Russian imperfective reflexive passives and Lithuanian present participles from any further discussion of statal passives.

There are several diagnostics based on English data in Wasow (1977) that help determine which of these functions is used in a given context. Schoorlemmer (1995: 217-222) examines such diagnostics for Russian, noting that some are inconclusive, as not all non-participial adjectives have the exact same set of syntactic behaviors. In the adjectival function, passive participles can show semantic drift, disallow expression of the agent (as shown above for Lithuanian in (59)), allow modification by degree words like očen’ ‘very’, allow prefixation of ne- ‘not’. In the function of actional passive, none of these apply, as shown in (61)-(64) (from Schoorlemmer 1995: 217-220).
(61) Russian semantic drift:
a. *rasprostranit’*  
\textit{rasprostraněnnyj}  
spread, extend  
widespread

b. *ževat’*  
\textit{ževannyj}  
chew  
crumpled

(62) Russian agent expression:
a. Takie predrassudki očen’ rasprostraněnnye (*glupymi luď’mi).*  
such prejudices very widespread (*stupid:INST people:INST)  
‘Such prejudices are very widespread (by stupid people).’

b. Dejstvie zakona bylo rasprostraneno zakonodatelem na vsex graždan.  
action law was extend:PST.PASS legislator:INST on all citizens  
‘The application of the law was extended by the legislator to all citizens.’

(63) Russian degree modification:
a. Takie predrassudki očen’ rasprostraněnnye.  
such prejudices very widespread  
‘Such prejudices are very widespread.’

b. Èti predrassudki bolee rasprostraněnnye, čem ran’še.  
such prejudices more widespread than earlier  
‘Such prejudices are more widespread than they used to be.’

c. *Dejstvie zakona bylo očen’ rasprostraneno na vsex graždan.*  
action law was very extend:PST.PASS on all citizens  
Intended: ‘The application of the law was very extended to all citizens.’

(64) Russian negation prefixation:
a. V prošlom veke, èta teorija byla ne-rasprostrenena, xotja ona  
in last century this theory was NEG-widespread although it  
byla izvestna vo vsem mire,  
was known in whole world  
‘In the last century this theory was un-widespread, although it was known in  
the whole world.’

b. Gorodskim upravleniem (ne) byla (*ne) postroena  
city:INST council:INST (NEG) was (*NEG) build:PST.PASS  
novaja škola.  
new school  
‘The city council did not build a new school.’
Finally, only statal passive participles can occur with the *stat’ ‘become’ as a copula, while verbal passive participles can only have *byt’ ‘be’. In (65), the temporal delimiter is allowed by the presence of the copula *stat’ ‘become’.

(65) **Russian auxiliary verb choice:**
   a. *Za mesjac, etot predrassudok stal ochen’ rasprostranen.*
      In month this prejudice became very widespread
      ‘In a month, this prejudice became very widespread.’

   b. *Dejstvie zakona stalo rasprostraneno zakonodatelem*
      action law became extend:PST.PASS legislator:INST
      na vsegraždan.
      to all citizens
      Intended: ‘The application of the law became/got extended by the legislator
to all citizens.’ (adapted from Schoorlemmer 1995: 221)

In addition to these diagnostics, adverbial modifiers play a large role in determining the type of passive participle. Certain adverbials only occur with one type of passive, as described for Russian in Knjazev 1989 (82-99) and for Lithuanian in Geniušienė 2006 (51-54). These include adverbials of duration, adverbials of time, adverbials indicating completion.

The examples in (66) and (67) show the time when the state described by the participle is held, or the duration for which it is held:

(66) **Lithuanian statal passive:**
Kad ir vaistinė naktimis uždary-t-a,
that and pharmacy:F.SG night:INST.PL close-PST.PASS-F.SG
to nežinai?
that NEG-know:2.SG
‘Don’t you know that the pharmacy is also closed at nights?’
   (Geniušienė 2006: 51)

(67) **Russian statal passive:**
Vsego 45 minut byl vključ-en teleskop, a podgotovka
all 45 minutes was turn.on-PST.PASS telescope but preparation
k eksperimentu potrebovala vos’mi časov.
to experiment required eight hours
‘For all of 45 minutes the telescope was turned on, but the preparations for the experiment required eight hours.’ (Knjazev 1989: 85)
Some adverbials of time are somewhat ambiguous. The meaning of the passive participle is determined by its relationship to the time given in the adverbial. If the temporal adverb is referring to the period in which an action took place, as in (68), it is actional in meaning. If the temporal adverb is describing when the state was observed, as in (69), it is statal in meaning.

(68) Lithuanian actional passive with temporal adverbial:
Rezultatai buvo paskelb-t-i pirmą valandą.
result:M.PL were announce-PST.PASS-M.PL first hour
‘The results were announced at one o’clock.’ (Geniušienė 2006:51)

(69) Russian statal passive with temporal adverbial:
V moment napadenii Miščenko byl v šinel’
at moment attack Miščenko was dress:PST.PASS in overcoat
s polevymi majorskimi pogonami.
with field major epaulets
‘At the moment of the attack, Miščenko was dressed in an overcoat with field major epaulets.’ (Knjazev 1989: 91)

The addition of the adverbials like Lithuanian dar ‘still’ and Russian vse ešče ‘still’ disambiguates the participle, reinforcing the statal/resultative reading, shown in (70) and (71):

(70) Lithuanian statal passive:
Kai jis įejo, šviesa buvo (dar) išjun-gtas.
when he entered light:M.SG was (still) turn.off-PST.PASS-M.SG
‘When he entered, the light was switched off.’ (Geniušienė 2006:51)

(71) Russian statal passive:
Bol’saja čast’ ostrova vse ešče pokryta neproxodimymi lesami,
large part island still cover:PST.PASS impassable:INST forests:INST
gde vodjatsja tigry i slony.
where roam tigers and elephants
‘A large part of the island is still covered with impassable forests where tigers and elephants roam.’ (Knjazev 1989: 86)

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It is important to note that the instrumental NP neproxodimymi lesami in (71) is not an agent, which is barred in statal passives, but describes a means, and can also occur in the active usage of the verb:

(i) Devuška pokryla nogti lakom.
girl covered nails:ACC polish:INST
‘The girl covered her nails in polish.’
Conversely, adverbial modifiers can also indicate an actional reading of a passive participle. Only actional passives can be modified by event delimiting time expressions, such as *za mesjac* ‘in a month’, because they denote events, and function as eventive predicates. Statal passives are stative, and as such cannot be modified by these time expressions:

(72) Russian passive with event delimiter:

a. *Ètot predrassudok byl očen’ rasprostrenen za mesjac.*
   this prejudice was very widespread in month
   Intended: This prejudice was very widespread in a month.’

b. *Za mesjac, dejstvie zakona bylo rasprosteneno zakonodatelem in month action law was extend:PASS legislature:INST na vsex graždan.*
   to all citizens
   ‘In a month, the application of the law was extended by the legislator to all citizens.’ (adapted from Schoorlemmer 1995: 220)

Additionally, adverbials that describe the manner in which an event took place can also only occur with actional passives, shown in (73). The same is true for adverbials that denote completion, shown in (74).

(73) Lithuanian actional passive:

Durys buvo palaipsniui atidary-t-os.
Door:FEM.PL was gradually open-PASS:FEM.PL
‘The door was gradually opened.’ (Geniušienė 2006: 52)

(74) Stovėjo Laukys ne-judė-damas ir tada, kai karstas jau stood Laukys NEG-move-HP and then when coffin:NOM.M.SG already buvo nuleis-t-as į duobą.
was put.down-PASS-M.SG to grave
‘Laukys stood unmoving even then when the coffin had already been lowered into the grave.’ (Geniušienė 2006: 52)

Now that I have described the differences in meaning and syntactic behavior of actional and statal passive participles in Russian and Lithuanian, I return to oblique passives.
3.4.3. Oblique Passives: Actional or Statal?

Babko-Malaya (1999) applies some of these diagnostics of actional and statal passives to the participles of instrumental case marking verbs (I-roots, in her terminology). She finds that these verbs can only form actional participles, rather than statal participles, as the participles cannot be negated with *ne- and must have an agent overtly expressed, as shown below:

(75) Russian passive of instrumental verb:
   a. otrjad, predvoditel’stvuemyi otvažnym komandirom
detachment lead-PRS.PASS courageous:INST commander:INST
   ‘a detachment led by a courageous commander’

   b. prenebregaemyi toboj molodoj čelovek
disdain-PRS.PASS you:INST young man
   ‘a young man disdained by you’

(76) Russian *ne-prefixation test:
   a. *nepredvoditel’stvuemyi
   NEG-lead-PRS.PASS
   Intended: ‘unled’

   b. *nperebregaemyi
   NEG-disdain-PRS.PASS
   Intended: ‘undisdained’

(77) Russian agent-omission test:
   a. *predvoditel’stvuemyi otrjad
   lead-PRS.PASS detachment
   Intended: ‘a led detachment’

   b. *prenebregaemyi molodoj čelovek
disdain-PRS.PASS young man
   Intended: ‘a disdained young man’

(adapted from Babko-Malaya 1999: 82-83)

Babko-Malaya only examines instrumental case marking verbs, and makes broad conclusions on the basis of just two verbs. It is important to note that oblique passives can also be formed from verbs that require genitive on their internal arguments, and possibly from those that require dative as well (see (28) above). It is possible to find examples of genitive marking
verbs (e.g. *dostignut* ‘achieve’) and dative marking verbs (e.g. *povredit* ‘harm’) with negative passive participles, though they are not nearly as frequent as the non-negative participles in searches of the Russian national corpus\(^{19}\).

For Lithuanian, the results are similar to those found by Babko-Malaya (1999). As seen in the data above in section 3.3.2, agentive *by*-phrases are allowed for all of the oblique passives. If these were statal passives, then this would not be possible. Furthermore, the past passive participle is significantly degraded, while the present passive participle is allowed in all of the examples given above. Because present passive participles can only be actional, this can be evidence that the statal passive is not allowed for oblique case marking verbs in Lithuanian, as shown for Russian.

I tentatively conclude that oblique case marking verbs rarely, if at all, form statal passive participles in Lithuanian and Russian. As I will argue below, this is due to the event structure of these verbs: they do not typically denote a resultant state held by the internal argument, which is why they cannot form passive participles that function as object-oriented resultatives. I now turn to previous analyses of the internal structure of oblique case marking verbs before presenting an event structural analysis which accounts for the various facts regarding oblique passivization given in this chapter.

3.5. **Analysis of Oblique Passivization**

3.5.1. **Previous Analyses of Oblique Passivization**

Previous approaches (Fowler 1996, Babko-Malaya 1999) to oblique passivization in Russian have indicated that internal arguments of different cases have different structural positions, although the nature of those positions varies. Fowler 1996 proposes that genitive and

\(^{19}\) [http://www.ruscorpora.ru/](http://www.ruscorpora.ru/)
instrumental arguments of verbs that allow oblique passivization are in fact direct internal objects, and do not differ from accusative internal arguments at all. Rather, the dative arguments, even when the sole internal argument of a verb, do occupy a different structure, which is why these arguments cannot become agreeing passive subjects. He argues that this follows from the consistent semantic function of dative case marked arguments, which differs from other morphological cases. That is, the majority of dative elements in two-place predicates are recipients, benefactives or malefactives. Genitive and instrumental arguments, however, do not differ from accusative patients other than their case marking. Thus, genitive or instrumental case marking is a pure lexical requirement of the verb, and these arguments do not differ structurally from accusative case marked arguments.

A different approach is put forth in Babko-Malaya 1999, although she only examines instrumental case marking verbs. She claims that, based on the aspectual facts of verbs that mark instrumental case on their internal arguments (e.g. they cannot form accomplishment type events), these verbs project their arguments VP-internally, unlike accusative-licensing verbs. Thus, both the internal and external argument of the instrumental verbs occur within the VP, while the external argument of an accusative verb is in a higher structure, and the internal argument is in the specifier of the VP.

These two different approaches reach diverging conclusions about the nature of non-accusative internal arguments. However, there is additional evidence that case is linked to aspect and event structure (e.g. Richardson 2007, Lavine 2010a) in the Slavic languages, and easily extended to Lithuanian. Richardson’s major claim, relevant to my analysis, is that only verbs with accusative internal arguments can be telic. Thus, verbs that require a different case on their internal arguments must be atelic. As I will claim below, this accounts for the fact that oblique
case marking verbs generally do not form statal passives, as there is no end result encoded in the verb that can create an object-oriented resultative. I now turn to a summary of the Ramchand’s proposal for representing event structure in the syntactic structure, which is the basis for my analysis of oblique passives in Russian and Lithuanian.

3.5.2. Event Structural Analysis of Oblique Passives

The main idea behind Ramchand’s (2003) proposal, given more fully in chapter 2, is that predicates describe events, and these events are composed of subevents: CAUSE, DO, BECOME. This is seen in (78), in which the same predicate can vary in which subevents it describes.

(78)  
  a. The boy broke the vase = boy CAUSE vase BECOME broken  
  b. The vase broke = vase BECOME broken (no CAUSE)

The decomposed vP analysis of Ramchand 2003 gives a structural representation of these subevents. The primitives are the initiation of an event (CAUSE, or init), the process (DO, or proc), and the result (BECOME, or res). Each of these can have a “subject” in its Specifier, shown in (79), and/or a rheme complement. Additionally, subevents and subjects can be “identified”, meaning that a single lexical item can occupy more than one position. The full possible structure is given here:
Non-aspectual arguments are rhemes, and occupy the complement of subevent heads. These include path, the complement of proc (e.g. draw a circle), ground, the complement of res (e.g. enter the room), and any stative internal arguments, which are complements of init (e.g. fear nightmares).

This model separates telicity from the presence of an undergoer argument that changes state (Ramchand 2008: 26-8). However, the attainment of a result state does give rise to a telic interpretation of an event. Therefore, we would expect only verbs with accusative case marked internal arguments to have a resP, and verbs with oblique case marked internal arguments to lack this element in their structure, following the conclusions of Babko-Malaya (1999) and Richardson (2007).

Given that statal passives are object-oriented resultatives, I propose that these types of passive participles can only be formed from verbs that have a res head. If there is no resP, there is no result subevent, and no holder of the result, and thus there cannot be an object-oriented resultative. When there is a resP, it is the resultee that becomes the promoted subject. Actional passive participles target the proc head only, which accounts for the fact that these participles
describe events. The undergoer is promoted to the subject position, which accounts for the fact that the actional passive can have a meaning of change of state, while the statal passive cannot.

Not all past passive participles are statal, as noted above in section 3.4.2. The difference in meaning between the actional and statal follows from the promotion of the resultee rather than undergoer to subject. However, all instances of oblique passivization in Russian and Lithuanian are actional, rather than statal.

This raises the question why past passive participles do not occur for most oblique case marking verbs in Lithuanian. Here we can consider the difference in meaning between present and past passive participles in Lithuanian. Ambrazas (2006: 251-253) notes that present passive participles, in the imperfective aspect, have a concrete meaning of a particular action, and that past passive participles, in the imperfective aspect have a resultative meaning. Thus, there is an interaction of the aspect of the verb and the tense of the passive participle that blocks the past passive participle for verbs that mark oblique case on their internal arguments. These verbs cannot be telic, thus they cannot have a resP in their event structure. The resultative reading of the imperfective past passive participle, I assume, requires a resP, which is why the past passive participle is ungrammatical or marginally acceptable. This participle, for these verbs, requires a result-oriented, telic interpretation, which is not possible for these verbs. The one exception that seems to stand out is the Lithuanian verb liepti ‘order, command’, as seen above in (50), and repeated here as (80):

(80) Lithuanian:
  a. Tėvai liepė jam dirb-ti.
     parents:NOM ordered him:DAT work-INF
     ‘(His) parents ordered him to work.’
  b. Jis buvo tėvų liep-t-as dirb-ti.
     he:NOM was parents:GEN order-PST.PASS.M.S.G work-INF
     ‘He was ordered by his parents to work.’
c. Jam buvo tēvų liepta dirb-ti.

\[ \text{he:DAT was parents:GEN order-PST-PASS[-AGR] work-INF} \]

‘He was ordered by his parents to work.’ (Ambrazas 2006: 278-9)

Here, it is possible that this verb does have a telic interpretation, but has two internal arguments: the dative NP and a non-finite clause. In (80d), the dative internal argument is not promoted to an agreeing subject, and retains its case. This could be because the dative here is not actually an undergoer, but an indirect object. For some speakers, though “very rarely” (Ambrazas 2006: 279), other indirect objects can also become passive subjects, as in (81):

(81) Lithuanian passive with indirect object:

a. Tēvas davė vaikui obuolį.

\[ \text{father give:PST child:DAT apple:ACC} \]

‘Father gave the child an apple.’

b. Vaikas buvo duo-t-as obuolį.

\[ \text{child:NOM.M.SG was give-PST-PASS-M.SG apple:ACC} \]

‘The child was given an apple.’

c. Obuolis buvo duo-t-as vaikui.

\[ \text{apple:NOM.M.SG was give-PST-PASS-M.SG child:DAT} \]

‘An apple was given to the child.’ (Ambrazas 2006: 279)

To the extent that the passives in (80b) and (81b) are possible (the native speakers I have consulted with reject (81b)), the function of the dative case in both examples is associated with a recipient-type meaning, and this may be affecting the passivization facts. I set aside the specifics of indirect objects in an event structural analysis for future research.

An additional issue that now arises is whether the oblique case marking verbs have undergoers, as the internal arguments for these verbs do not necessarily rank high on transitivity diagnostics, for instance the Proto-Patient features of Dowty (1991) given above. At the same time, there are instances of Lithuanian oblique passivization that involve promotion of a non-direct internal argument which do encode some change of state. Because of this interpretation of
the argument that becomes the passive subject, we can assume that they do occupy this position. Thus, Fowler’s (1996) proposal that non-accusative arguments can occupy the same structural position as their accusative counterparts does hold. Oblique internal arguments can be undergoers, and the case marking is a requirement of the verb.

It is true that for Russian and Lithuanian, not all oblique case marked arguments can become agreeing subjects of passives. In some instances, such as with the Russian verb *sootvetstvovat’* ‘correspond’, this verb is stative, with no proc head for the passive participle to target. In other instances, such as Russian *torgovat’* and Lithanian *priekauti* ‘trade (in)’, which are not stative predicates, the internal argument is not an undergoer, but a path complement to the process head, as in the structure shown in (82).

(82)

\[
\text{initP} \\
\text{NP}_i \\
\text{init} \\
\text{procP} \\
\text{NP}_i \\
\text{proc} \\
\text{NP-PATH}
\]

3.6. **Chapter Conclusion**

In this chapter I have presented evidence that oblique case marking verbs can form agreeing passive participles in Russian and Lithuanian with nominative promoted subjects, despite previous assumptions (e.g. Friedin 1996, Woolford 2006) based on languages like German and Icelandic that retain the oblique case on the promoted subject. Just as not all accusative case marking verbs can passivize, not all oblique case marking verbs can, most notably the stative verbs. For Lithuanian, we saw that in addition to direct internal arguments,
other internal elements can be promoted, such as PP internal arguments, and other NPs that at first blush appear to be more adjunct-like than argument-like.

In addition, I examined differences between actional (verbal) and statal (adjectival) passives, and conclude along with Babko-Malaya (1999) that oblique passives in Russian and Lithuanian can only be actional. Finally, I examined previous analyses (Fowler 1996, Babko-Malaya 1999) which proposed that oblique case marked internal arguments occupy a different structural position than accusative case marked internal arguments. I proposed a novel analysis, relying on a decomposed vP that reflects the event structure of a predicate. Based on the fact that statal passives function as object-oriented resultative (Geniušienė 2006: 31), I argued that the key difference between accusative and oblique case arguments is that the latter can never be the holder of a result state. This is supported by Richardson (2007), who has proposed that non-accusative case marking verbs cannot be telic, which would mean that they cannot have a resP in their structure. This also accounts for the fact that verbs that undergo oblique passivization do not form statal passives, because these are object-oriented resultatives. For those verbs that allow oblique passivization, the oblique case marked internal arguments can become agreeing passive subjects because they occupy the same structural position as accusative internal arguments.

Regarding case theory, oblique passivization creates a problem for traditional distinctions of structural and non-structural case. Previously, in Anderson (2009), I had claimed that the verbs that allow oblique passivization have lexical case on their internal arguments, while those that do not allow oblique passivization have semantic case instead. In light of the evidence presented in this chapter, brought to my attention by Kristina Lenartaitė (p.c.), this conclusion seems inaccurate. Examples with passive subjects promoted from non-direct internal arguments (see (6) above) particularly highlight this inaccuracy. However, under the event structural
analysis given here, I conclude that lexical case can be marked on arguments in the same structural position as structural case marked arguments. As I will show in the following chapter on accusative and instrumental alternations, this is not the case for semantic case marked arguments.

Finally, there is a remaining puzzle for oblique passivization in Lithuanian regarding the animacy of the internal argument. Some verbs allow only animate arguments to be promoted to passive subjects, as in (83), while others only allow inanimate arguments, as in (84):

(83) Lithuanian:
   a. Policija ieškojo nusikaltélių.
      police:NOM looked.for criminals:GEN
      ‘The police looked for the criminals/children’
   b. Nusikaltéliai buvo ieško-m-i policijos.
      criminals:NOM.M.PL were look.for-PRS.PASS-M.PL police:GEN
      ‘Criminals were looked for by the police’
   c. Močiutė ieškojo akinių.
      grandmother:NOM looked.for glasses:GEN
      ‘The grandmother looked for (the) glasses:
   b. *Akiniai močiutės buvo ieško-m-i.
      *glasses:NOM.M.PL grandmother:GEN were look.for-PRS.PASS-M.PL
      ‘The glasses were looked for by the grandmother’ (K. Lenartaitė, p.c.)

(84) Lithuanian:
   a. Alkoholis (pa)-kenkė kepenims.
      alcohol:NOM (prf)-harm.PST liver:DAT
      ‘Alcohol harmed (the) liver.’
   b. Kepenys buvo pa-kenk-t-os/kenkia-m-os alkoholio.
      liver:NOM.F.PL were PRF-harm.PST.PASS-F.PL/harm-PR.PASS-F.PL alcohol:GEN
      ‘Liver was harmed by alcohol’
   c. Alkoholis (pa)-kenkė Jonui.
      alcohol:NOM (PRF)-harmed:PST John:DAT
      Intended: ‘Alcohol harmed John’
It is noteworthy that canonical passives, with verbs that require accusative case on their internal arguments, do not reflect such semantic restrictions. The fact that this animacy requirement is not uniform (i.e. a strong requirement for animate or inanimate for all verbs) makes this requirement even more puzzling. While I do not see how these facts create a problem for the analysis I have given in this chapter, I do not have a satisfying account of why this should be the case, and leave this problem for future research.
Chapter 4. Accusative-Instrumental Case Alternations in Russian and Lithuanian

4.0. Introduction

In this chapter, I examine case alternations of internal arguments, with a focus on verbs that license either accusative or instrumental in Russian and Lithuanian, as in (1) and (2).

(1) Russian accusative-instrumental alternations:
   a. Mal’čiki brosili kamni/kamnjami v okno.
      boys threw stones:ACC/INST at window
      ‘The boys threw stones at the window.’

   b. Anna požala *pleči/✓plečami.
      Anna shrugged shoulders:*ACC/✓INST
      ‘Anna shrugged her shoulders.’

   c. Anna skreščivala nogi/*nogami.
      Anna crossed legs:ACC/*INST
      ‘Anna crossed her legs.’

(2) Lithuanian accusative-instrumental alternations:
   a. Berniukai mėtė akmenis/akmenimis į langą.
      boys threw stones:ACC/INST at window
      ‘The boys threw stones at the window.’

   b. Ona traukė pečius/pečiais.
      Ona shrugged shoulders:ACC/INST
      ‘Ona shrugged her shoulders.’

   c. Ona sukrižiavo kojas/*kojomis.
      Ona crossed legs:ACC/*INST
      ‘Ona crossed her legs.’

   d. Apsaugininkas žvang-in-o raktus/raktais.
      guard jingle-CAUS-PST keys:ACC/INST
      ‘The guard jingled the keys.’

   e. Raktai/*raktais žvangėjo/*žvang-in-o kišinyje.
      keys:NOM/*INST jingled/*jingle-CAUS-PST pocket.LOC
      ‘The keys jingled in the pocket.’

1 This article expands on ideas first discussed in Anderson 2011.
These examples show that there are multiple semantic classes of verbs that participate in the alternation. For both languages, verbs of throwing and certain verbs of moving body parts allow either accusative or instrumental. In Russian, each member of the latter class assigns only accusative or instrumental, while some Lithuanian verbs of moving a body part can assign both cases (e.g. (2b)). Lithuanian also shows accusative-instrumental alternation with verbs of sound production and verbs of dressing and wearing clothing, as in (2d-e) and (2f), respectively.

Traditional grammars (e.g. Ambrazas 2006) claim that the accusative and instrumental cases in (2) are equivalent in meaning. However, there is a subtle difference in meaning for the two case-marking strategies. The accusative indicates the object (body part, source of sound) is (more) affected or undergoing some change, whereas the instrumental indicates it is a means for performing the action (Šukys 2005).

I will show that the difference in morphological case, illustrated above in (1) and (2), is due to a difference in event structure. In general, accusative is used for events that involve a change of state or position, and instrumental is used if there is no change of state or position. Instrumental is the case used in the alternation because the arguments describe the means or manner in which the action takes place. I will propose that the internal argument of these verbs can be a Proto-Patient2 (in the sense of Dowty 1991), resulting in accusative case marking, but is not required to be, and in these instances instrumental case is used. Assuming a decompositional verb phrase representation of event structure (following Ramchand 2008), the two morphological cases can be linked to two different event structures, further accounting for the alternation.

---

2 A Proto-Patient, in terms of Dowty (1991), is the argument that ranks highest in terms of patient features. This will be discussed more fully in 4.2.1.
Such case marking patterns are problematic for any version of case theory that links case licensing to only structural position or to theta-marking, because structural accusative appears to alternate with an inherent case. Inherent case, as discussed in chapter 2 [a background on case theory], is an insufficient category (cf. Babby 1994, Woolford 2006), as non-structural case can be divided into (at least) lexical case (a selectional property of a lexical item, such as a verb, adjective or preposition), and semantic, or theta-related, case.

As Babby (1994) discusses, semantic case contributes to the meaning of the sentence. Each semantic case is associated with a variety of thematic roles. Consider the instrumental NPs in the following examples:

(3) Russian semantic instrumental case:
   a. Zimoj v Moskve xolodno.
      winter:INST in Moscow cold
      ‘It is cold in Moscow during the winter.’

   b. Celymi dnjami my exali lesom.
      whole:INST days:INST we travelled forest:INST
      ‘For entire days we travelled through the forest.’

   c. On staratelnõ vystrugal ee nožom
      he carefully carved it:ACC knife:INST
      ‘He carefully carved it with a knife.’

   d. Moj otec rabotaet prepodavatelem.
      my father works teacher:INST
      ‘My father works as a teacher.’ (Babby 1994: 647)

I will argue that, in fact, instrumental in sentences like (1) and (2) is neither structural nor lexical case, but rather a semantic case, used because the argument marked with instrumental denotes a “means” by which the action is performed (cf. (3) above).

The chapter is organized as follows: in section 4.1, I will present the various classes of verbs that participate in the accusative-instrumental case alternation in Russian and Lithuanian, and describe the syntactic and semantic differences between the two possible morphological
cases, showing that the underlying determining factor for the case selection is the event structure. In section 4.2, I review previous approaches to this alternation and for case alternations in other languages, primarily Icelandic, also reviewing the relevant aspects of Dowty’s (1991) theory of Proto-Roles and Ramchand’s (2008) decompositional phrase structure. Finally, I will present my proposal for the various subtypes of accusative-instrumental alternations based on the differences in event structure in section 4.3.

4.1. The Accusative-Instrumental Alternation in Russian and Lithuanian

In this section I will explicate the details of the case alternations under investigation for Russian and Lithuanian. There are four semantic verb classes that allow for the case alternation: verbs of throwing, verbs of moving a body part, verbs of sound production, and verbs of dressing & wearing clothing. The latter two are limited to Lithuanian, although the Russian verbs of sound production undergo an argument structure alternation: the object used to make the sound can appear as the grammatical subject, marked with nominative case, or an internal argument marked with instrumental case, and thus these verbs will also be discussed with respect to instrumental case as a semantic case. I will discuss each verb class in turn, comparing and contrasting the Russian and Lithuanian data in each section.

4.1.1. Verbs of Throwing

Russian allows either accusative or instrumental with verbs of throwing, as in (4) and (5):

(4) Ivan brosil kamen’ /kamnem v okno.
    Ivan threw stone:ACC/INST at window
    ‘Ivan threw a stone at the window.’

(5) Ona vzjala vazočku i zapustila eju v stenu.
    she took vase:ACC and let-go it:INST to wall
    ‘She grabbed the vase and threw it at the wall.’ (from Leonard Babby, p.c.)
In examples like (4) and (5), accusative is used when the object is more directly involved in the action (cf. Wierzbicka 1980, despite some incorrect grammaticality judgments). Instrumental, on the other hand, indicates that the Agent is doing something with the object, but not to the object, i.e. the object is used to another means (Jakobson 1990: 380). Judgments of native speakers reflect that accusative is marked on the internal argument for discourse-related objects (e.g. definiteness), and to highlight or emphasize the object being thrown (rather than the target), whereas instrumental is used to emphasize the effect on the target, as seen in an online³ discussion regarding the difference in the meaning and stylistics of accusative and instrumental case with verbs of throwing in Russian.

Demjjanow & Strigin (2000) describe the difference between accusative and instrumental as a “change in perspective”, but the physical situation described is not different, as in spray/load alternations. The accusative-instrumental case alternation under investigation here are quite similar in spirit to the alternation exhibited by verbs such as spray and load, as in (6) and (7), from Dowty 1991 (587):

(6)  a. Mary loaded the hay onto the truck.
    b. Mary loaded the truck with (the) hay.

(7)  a. Mary sprayed (the) paint onto the wall.
    b. Mary sprayed the wall with (the) paint.

These verbs have two internal arguments, and either one can be construed as the direct internal argument, leaving the other as an indirect internal argument, which is realized as a prepositional phrase or oblique case. According to Dowty (1991), the choice of direct or indirect internal argument depends on the semantic interpretation: the direct internal argument is more

³ http://www.ljpoisk.ru/archive/1538594.html
prominent and seen as undergoing the action, whereas the indirect internal argument is peripheral.

The verbs under investigation in this chapter, which undergo the accusative-instrumental alternation, have a similar semantic difference, but there is only one argument. That is, if the sole internal argument is marked with accusative case, it is perceived as undergoing the action. If the argument is marked with instrumental case, it is not. This is supported by Dowty’s framework of Proto-Patient as applied to the spray/load-type alternations, as will be discussed below in section 4.2.1.

Verbs of throwing in Lithuanian also participate in the accusative-instrumental alternation, however these verbs can also be reflexive\(^4\). Traditional grammars (e.g. Ambrazas 2006) claim instrumental occurs only with verbs of throwing, when they have the reflexive affix, as in (8):

\[
\begin{align*}
\text{(8)} & \quad \text{a. mėt-}t/\text{ svaidy-}t \text{ akmenis} \\
& \quad \text{throw-INF/ toss-INF stones:ACC }
\end{align*}
\]

\[
\begin{align*}
\text{b. mėt-}t/\text{s} \text{ svaidy-}t/\text{s} \text{ akmenimis} \\
& \quad \text{throw-INF-REFL/ toss-INF-REFL stones:INST }
\end{align*}
\]

However, examples with non-reflexive verbs of throwing with instrumental case marked on the internal argument can be found, as in (9):

\[
\begin{align*}
\text{(9)} & \quad \ldots\text{visi žmonės ėmė mėtyti į mane kas kuo galėjo:} \\
& \quad \ldots\text{all people took to-throw at me who what:INST could} \\
& \quad \text{purvu akmenimis, smėliu, šluotomis.} \\
& \quad \text{mud:INST, stones:INST sand:INST brooms:INST} \\
& \quad \text{‘...all the people started throwing at me whatever they could: mud, rocks, sand, brooms.’} \\
& \quad \text{(Dainius Juozénas, Faustina ir Jėzus, “Šiaurės Atėnai” [Faustina and Jesus, “Northern Athens”, 2005-11-19) }
\end{align*}
\]

\(^4\) In Baltic and Slavic, a verb is reflexive if it has the reflexive affix. For Lithuanian, it is –s in word-final position and -si- elsewhere.
The reverse, accusative case marked on the internal argument of a reflexive verb, is ungrammatical\textsuperscript{5}.

For non-reflexive verbs of throwing, accusative case is used when the target is not likely to be hit. Rather, the speaker is emphasizing that the object is being acted upon. Conversely, the instrumental case is used when the target is affected, indicating that the thrown object is less affected by the action. An instrumental internal argument with a verb of throwing is interpreted as a means of performing the action.

The reflexive version of verbs of throwing does not allow accusative, which can be accounted for by Babby’s 2009 treatment of reflexivization as dethematization of the internal argument. The function of the reflexive particle in Russian passivization is to demote the external argument, leaving a position in the argument structure to which the internal argument is promoted. However, this is not what the reflexive verbs of throwing mean. Rather than dethematizing the subject, as with passives or other semantically reflexive or reciprocal verbs, the object is demoted from direct internal argument marked with accusative case to indirect argument marked with instrumental case. Thus, rather than passivization, it is similar to antipassive constructions found primarily in ergative languages.

(10) Greenlandic Eskimo antipassive:
      Jacob-ERG woman kill-IND-3SG.ERG/3SG.NOM
      ‘Jacob killed the woman.’

\textsuperscript{5} While accusative case with reflexive verbs in Russian is ungrammatical in the standard dialect, with a few exceptional innovations, Lithuanian has many instances of accusative objects with reflexive verbs:
   A$\ nu$-si-pirk\$ knygas
   I PRF-REFL-bought books-ACC
   ‘I bought (myself) books’

Here, the reflexive affix –si- is a dative reflexive marker, meaning the action is performed for oneself, rather than to oneself.
A similar proposal is also put forth by Wierzbicka 1980. The antipassive in ergative languages, which normally is marked with an overt affix, serves the function of demoting the direct object (which can be conceived of as the opposite of the traditional view of the passive, that is, the promotion of the direct object\(^6\)). Since transitive subjects receive ergative case, while intransitive subjects are marked absolutive, the end result is not only the dethematizing of the direct object to an indirect object, but also changing the case marking on the external argument. Thus, a transitive sentence, with an ergative subject and absolutive direct object, is made intransitive, with an absolutive subject and an indirect object. The case marking on the indirect object varies from language to language, but typically one case or prepositional phrase is used for all instances of object demotion. As I will discuss in section 4.3.2.1, I represent this dethematization of reflexive verbs of throwing by positing that the reflexive affix occupies the usual position of the patient, thus demoting it to a different structural position.

In summary, for verbs of throwing in Russian and Lithuanian, accusative is used to highlight that the item thrown is undergoing the action, rather than a means of performing it. This difference in meaning, while subtle, will be seen throughout the other classes of verbs that allow for the case alternation, and will play a key role in the analysis I provide in section 4.3.

4.1.2. Verbs of Moving Body Parts

Many verbs in Russian that take a body part as the internal argument license instrumental on that argument, as in (11). These verbs also indicate that the body part moves back and forth.

---

\(^6\) As discussed in chapter 3, I hold that passivization primarily serves to dethematize the agent rather than promote the patient.
(11) Russian verbs of moving body parts (instrumental only):
   a. makhat’ rukoj/*ruku
      wave          hand:INST/*ACC
   b. kivat’ golovoj/*golovu
      nod           head:INST/*ACC
   c. požat’ plečami/*pleči
      shrug         shoulders:INST/*ACC
   d. dvigat’ ušami/*uši
      move          ears:INST/*ACC

However, this is not a lexical requirement on the verb for at least some members of this class: if
a different type of argument is used, accusative is allowed and instrumental is disallowed:\footnote{1}{Demjjanow & Strigin (2000: 101) give the following instance of instrumental with this verb:

   (i) a. dvigat’ stul
       move          chair:ACC
   b. dvigat’ stulom
       move          chair:INST

   They suggest that the difference between the verb phrases in (i) is that (ib) implies that the subject is
   sitting in the chair and moving around in it, while (ia) indicates that the subject cannot be sitting in the
   chair. Other native speakers claim that (ib) can only mean that the subject is moving something else with
   the chair.}

   (12) Russian:
       dvigat’ mebel’/*mebel’ju
       move          furniture:ACC/*INST

Additionally, instrumental case is not a requirement on the semantic class of nouns: not all body
parts are always marked with instrumental, shown in (13):

(13) Russian, accusative on body part argument:
   a. otkryt’ glaza/*glazami
      open           eyes:ACC/*INST
   b. skreščivat’ nogi/*nogami
      cross         legs:ACC/*INST

The generalization seems to be that instrumental case marking comes from an interaction of the
verb’s event structure and the role of the argument, not a property of either individually. This is
evidenced by (14), in which the instrumental is marked on a noun that does not refer to a body part:

(14)  Russian instrumental with verb of movement:

...xvatila bližajšij stul, podtjanula ego k sebe i stala dvigat’ im po polu, slegka podtakovaja mjač ego nožkami.
‘…(she) grabbed the closest chair, pulled it towards her and started to move it:INST around the floor, gently pushing the ball with its legs.’ (Viktor Pelevin, “Zigmund v Kafe [Sigmund in the Cafe”)

In the above example, the instrumental is used rather than the accusative to indicate that the subject is moving herself along with the chair: the chair is a means for movement, rather than undergoing the movement separate from the agent.

Accusative case with verbs of moving body parts has a different meaning: the body part is affected by the action (cf. Wierzbicka 1980: 24-7). As (15) shows, the accusative is possible, though unusual, to emphasize that there is a change in position of the body part.

(15)  Russian accusative with verb of moving body part:

Provesti jazyk vpered meždu perednimi verkhnimi zubami i verkhnej guboj i vesti k soedineniju pravoj verkhnej desni i vnutrennej časti pravoj ščeki.
‘Draw your tongue:ACC forward between the front upper teeth and the upper lip, and draw it towards where the right, front gums and the inside part of the right cheek meet.’
(http://kopilkanm.ru/comment_1283453886.html)

Letuchiy (2007) argues that the accusative is used when verbs of moving a body part are “verbs of result” (Levin & Rappaport Hovav 1995), and the argument undergoes some action or changes position. Thus, accusative is marked on the arguments that Dowty (1991) describes as Proto-Patients. Instrumental, on the other hand, is used when verbs of moving a body part are “verbs of manner”, and when there is no change in position of the argument. In this way, the event structure, argument structure and semantic class of a verb (verbs of result vs. verbs of manner) are reflected in the choice of morphological case on the direct internal argument.
Lithuanian verbs of moving body parts show similar case marking patterns to Russian, but with more “flexibility,” i.e. both instrumental and accusative are allowed in instances where Russian only allows instrumental. The verbs in (16) show that certain verbs used to describe an action involving a body part can have either accusative or instrumental case on the object:

(16) Lithuanian verbs of moving body parts:
   a. linguoti galva/galvą
      shake head:INST/ACC
   b. karpyti ausimis/ausis
      move ears:INST/ACC
   c. griežti dantimis/dantis
      gnash teeth:INST/ACC
   d. traukyti pečiais/pečius
      shrug shoulders:INST/ACC
   e. vizginti uodega/uodegą
      wag tail:INST/ACC (adapted from Ambrazas 2006:513)

Ambrazas (2006) claims that many verbs can have either case, but speaker judgments vary. Some prefer instrumental with a particular verb, while others prefer accusative for that same verb. However, instrumental is preferred by many native speakers for gestures or automatic physical responses (e.g. chattering of teeth). Only accusative is acceptable if the body part is being controlled in some way (e.g. in order to exercise), or the focus is on the change of position, as in (17):

(17) Lithuanian accusative on body part argument:
   Trauky-k pečius/*pečiais iki ausų
   shrug-IMPV shoulders:ACC/*INST to ears
   ‘Shrug your shoulders up to your ears’

If the body part is affected or its position changed, accusative is possible. If not, then instrumental is preferred. Thus, the same conclusions can be drawn about verbs of moving body parts in Lithuanian as in Russian: the accusative is used when the body part undergoes change of
state or position, and the instrumental is used when the body part can be conceived of as a means for performing the action. This is quite similar to the conclusions drawn for verbs of throwing in the preceding section: accusative case corresponds to a higher degree of patienthood (i.e. a more features of a prototypical patient) on the part of the internal argument, and instrumental case to a lower degree of patienthood (fewer features of a prototypical patient). The difference between the languages, then, is that Lithuanian shows greater flexibility for this shift in meaning for this class of verbs. However, as shown above in examples like (12) and (13), the right context can yield one reading or another in Russian as well.

4.1.3. Verbs of Sound Production

Verbs of sound production show an argument structure alternation in Russian and Lithuanian, either occurring with one argument, as in the (a) sentences below, or two, as in the (b) sentences in (18) and (19).

(18) Russian:
    a. Gremit posuda.
       rattle dishes:NOM
       ‘The dishes are rattling.’

    b. Ženščina gremit posudoj.
       woman rattles dishes:INST
       ‘The woman rattles the dishes.’

(19) Lithuanian:
    a. Barška indai.
       rattle dishes:NOM
       ‘The dishes are rattling.’

    b. Moteris barška indais.
       woman rattles dishes:INST
       ‘The woman rattles the dishes.’

If there is one argument, it is the source of the sound, and is realized as the grammatical subject, and marked with nominative case. The word order shown in the (a) sentences above, with the
subject following the verb, is neutral and unmarked\textsuperscript{8}, suggesting that these verbs are unaccusative. That is, the sole argument is not an initial external argument.

If there are two arguments (a source of sound and an agent), the source of the sound can only be an internal argument, and marked with instrumental case. The external argument is the agent producing the sound by means of the internal argument. Thus, it is not surprising that the internal argument is marked with instrumental case, as it is interpreted as an instrument for producing the sound.

Paducheva 1998 points out that this sort of “diathetic shift” (essentially, an argument structure alternation), in which an internal argument becomes a subject, is unusual in Russian, unless a reflexive affix is added:

(20) Russian diathetic shift with accusative:

a. Ivan otkryvaet dver’.  
Ivan opens door:ACC  
‘Ivan opens the door.’

b. Dver’ otkryvaet*(sja).  
door:NOM opens(REFL)  
‘The door opens.’

Internal arguments that are instruments, however, can become external arguments without the reflexive affix:

(21) Russian diathetic shift with instrumental:

a. Ivan napolnil jamu vodoj.  
Ivan filled pit:ACC water:INST  
‘Ivan filled the pit with water.’

b. Jama napolnila*(s’)(vodoj).  
pit:NOM filled*(REFL) (water:INST)  
‘The pit filled with water.’

\textsuperscript{8} Both Russian and Lithuanian allow for scrambling, but certain word orders are considered default under neutral discourse conditions.
The diathetic shifts shown in (20) and (21) shows that the dyadic (b) sentences in (18) and (19) are the basic argument structure, with the source of the sound as an instrument, possibly in a different structural position than the direct object. The monadic (a) sentences in (18) and (19) are derived, with the external argument removed by dethematization\(^9\). However, the internal argument appears to not be a direct internal argument, as it is not marked with accusative case when the external argument is present, and the verb is not reflexive as usually occurs with promotion of the internal argument to the subject position, as in (20).

In addition to the argument structure alternation discussed above from Russian, Lithuanian verbs of sound production also participate in the accusative-instrumental case alternation, allowing either instrumental or accusative on the internal argument. However, this is only possible with a different form of the verb for sound production. This form has the historically causative\(^{10}\) suffix \((d)y-/ (d)- in\). Unlike the non-causative verb in (19), the causative verbs are never intransitive; there must always be two arguments.

(22) Lithuanian causative verb of sound production:

   woman    rattle-CAUS-PRES dishes:INST/ACC
   ‘The woman rattles the dishes’

   dishes:NOM    rattle-CAUS-PRES
   Intended: ‘The dishes are rattling.’

---

\(^9\) Unlike under passivization, the dethematization of the external argument does not occur with the addition of the passive morpheme.

\(^{10}\) Many verbs in Lithuanian have a causative and non-causative form, however this suffix is no longer productive in Modern Lithuanian.
The causative verb, unlike the non-causative, allows either accusative or instrumental to occur on the internal argument, as shown in the examples in (23), which are adapted from sentences found on the Lithuanian online corpus:\(^{11}\):

(23) Lithuanian:
   a. Poetas, barškin-damas rašomaja mašinėle, atsakė…
      poet rattling-HP writing machine:INST answered…
      ‘The poet, rattling at the typewriter, replied…’
   b. Mortūnienė liaujasi barškin-usi indus.
      Mortuniene stopped rattling-PST.ACT dishes:ACC
      ‘Mortuniene stopped rattling the dishes.’

The difference in meaning of the accusative and instrumental case in (23) is subtle, but native speakers have suggested that the accusative implies the agent is doing something to the object, and the instrumental is used when making a sound that involves the object, e.g. playing an instrument. This alternation, like the body parts alternation discussed in section 4.1.2 above, also be involves a distinction in the affectedness of the internal argument, with the accusative corresponding to a higher degree of affectedness.

The argument structure of the causative verb differs from that of the non-causative in the following ways: the external argument is obligatory, whereas it can be dethematized with the non-causative verb, as seen in (19) above. Additionally, the causative verb allows for a direct internal argument, which is marked with the accusative. However, the internal argument may remain an indirect internal argument, which is marked with instrumental case. The case alternation for verbs of sound in Lithuanian reflects not only a semantic difference, as seen with the previous classes, but also shows a transitivity alternation.

\(^{11}\) http://tekstynas.vdu.lt/
4.1.4. Verbs of Dressing

The final semantic class of verbs that participates in the accusative-instrumental case alternation are verbs of dressing and wearing clothing in Lithuanian\textsuperscript{12}. This class has many members that only occur with certain types of clothing. As shown in Table 1, the verbs describe different types of actions to put on various types of clothing, plus a distinct verb for shoes.

Table 1. Verbs of dressing:

<table>
<thead>
<tr>
<th>Dressing</th>
<th>Wearing</th>
<th>Translation</th>
<th>Items of clothing</th>
</tr>
</thead>
<tbody>
<tr>
<td>rengtis</td>
<td>devêti</td>
<td>get dressed/wear</td>
<td>all clothes</td>
</tr>
<tr>
<td>autis</td>
<td>avêti</td>
<td>put on/wear shoes</td>
<td>shoes, boots, footwear</td>
</tr>
<tr>
<td>gaubtis</td>
<td>gobêti</td>
<td>wrap on/wear</td>
<td>wraps, shawls</td>
</tr>
<tr>
<td>juostis</td>
<td>juosêti</td>
<td>girdle/wear a belt</td>
<td>belts</td>
</tr>
<tr>
<td>mautis</td>
<td>mûvêti</td>
<td>slide on/wear</td>
<td>gloves, pants, rings</td>
</tr>
<tr>
<td>ryštis</td>
<td>ryšêti</td>
<td>tie on/wear</td>
<td>scarves, ties</td>
</tr>
<tr>
<td>segtis</td>
<td>segêti</td>
<td>fasten, button/wear</td>
<td>skirts, broches, buttons</td>
</tr>
<tr>
<td>viltis</td>
<td>vilkêti</td>
<td>cover, put on/wear</td>
<td>outerwear, suits, uniforms</td>
</tr>
<tr>
<td>---</td>
<td>nešioti</td>
<td>wear</td>
<td>all clothes, accessories</td>
</tr>
</tbody>
</table>

The reflexive verbs in the table above refer to the act of dressing, with morphologically related verbs for wearing the particular items of clothing. The reflexive verbs can also be used without the reflexive affix to describe dressing someone else, as in (24):

(24) a. Rasa ap-rengê vaiką (marškiniais).
    Rasa PRF-dressed child:ACC shirt:INST
    ‘Rasa dressed the child (in a shirt)’

    b. Vaikas ap-si-rengê (marškiniais).
    child PRF-REFL-dressed shirt:INST
    ‘The child got dressed (The child dressed himself).’

The reflexive verbs can also take an instrumental internal argument, but are not incompatible with accusative. As mentioned above in fn. 1, Lithuanian also has two functions of the reflexive: an “accusative” reflexive, meaning the action is done to oneself, and a “dative” reflexive,

\textsuperscript{12} All examples in this section will be in Lithuanian unless otherwise indicated.
meaning the action is done for oneself. The latter is compatible with accusative case, as shown in (25):

(25)  Rasa nu-si-pirko knygas.
     Rasa PRF-REFL-bought books:ACC
     ‘Rasa bought (herself) some books.’

The use of instrumental with the reflexive verbs of dressing could be accounted for as the loss of accusative with reflexivization\(^{13}\), but the accusative is also possible. While this is not surprising, given the facts about Lithuanian reflexives, shown in (25), it means that there is a true case alternation with this class of verbs, as with the other classes discussed above, not a transitivity alternation resulting from the reflexive affix demoting the accusative internal argument. This is highlighted by the fact that the case alternation is also possible with the non-reflexive verbs of wearing. Instrumental and accusative both occur with equal frequency with \textit{av\={e}t\={i}} and \textit{vilk\={e}t\={i}}\(^{14}\).

For this class of verbs, the difference in meaning between accusative and instrumental is the most subtle, to the extent that there is a semantic distinction at all. Insight into the case alternation of these verbs can be gained by examining differences in argument structure under prefixation. Lithuanian, like the Slavic languages, has a variety of prefixes that can be attached to verbs. Most verbs have one dedicated prefix that forms the perfective verb, and the actual prefix varies from verb to verb. Other prefixed can be attached to a verb to change the meaning, as in (26):

\(^{13}\) An analysis suggested to me by Axel Holvoet, p.c.
\(^{14}\) Based on a corpus search for the non-reflexive verbs. Other verbs have meanings in addition to putting on or wearing clothing, e.g. \textit{ri\={s}ti} ‘to tie’.
(26) a. rašyti – to write  
    b. aprašyti – to describe  
    c. įrašyti – to write in  
    d. išrašyti – to write out  
    e. nurašyti – to write down  
    f. parašyti – to write (perfective), to write a little  
    g. perrašyti – to rewrite  
    h. prirašyti – to fill up with writing  
    i. surašyti – to write in a list  
    j. užrašyti – to write down  

Some prefixes augment the argument structure of a verb: a monadic verb can become transitive, or a third argument can be added to a transitive verb. The latter can be seen with certain prefixes on verbs of dressing. There are two possibilities for how the argument structure of these verbs can be changed. A direct object, marked with accusative, is added, and the item of clothing is always instrumental, as in (27), or a location in a prepositional phrase is added, and the item of clothing is always accusative, as in (28).

(27) a. ap-si-rišti galvą skarele/*skarelę  
    PRF-REFL-tie head:ACC kercheif:INST/*ACC  
    ‘to tie a kerchief around one’s head’  
    b. su-si-juosti kelnes diržu/*diržą  
    PRF-REFL-girdle trousers:ACC belt:INST/*ACC  
    ‘to girdle one’s trouser’s with a belt’  

(28) a. už-si-rišti ant galvos skarele/*skarelę  
    PRF-REFL-tie on head:GEN scarf:ACC/*INST  
    ‘to tie up a kerchief on one’s head’  
    b. su-si-juosti juosta/*juosta ant marškinį  
    PRF-REFL-put.on belt:ACC/*INST on shirt:GEN  
    ‘to put on a belt on one’s shirt’  
    c. į-si-segti sage/*sage į suknelę  
    PRF-REFL-fasten brooch:ACC/*INST to dress:ACC  
    ‘to fasten a brooch to a dress’  

Based on the triadic verbs in (27) and (28), the dyadic verbs of dressing and wearing clothing resemble to a certain degree spray/load-type verbs in the semantic difference between
accusative and instrumental. That is, the sole internal argument can either be the direct object, undergoing some action, or can be an indirect object, in this case an instrument or means for performing the action. This is supported by input from native speakers\textsuperscript{15}. When a sentence with an instrumental object with one of these verbs is elicited, many speakers included an adjective to indicate how to dress, e.g. new shoes, warm sweater.

Thus, the case alternation with these verbs lines up with the semantic distinctions found in the other verb classes: the accusative is used to emphasize that the internal argument is affected, and the instrumental reflects the item is used to perform an action. This is also seen in the difference in meaning found in the verbs in (27) and (28): the accusative is used when the item of clothing is changing positions (e.g. going onto the head as in (27)), and the instrumental is used with the item of clothing is used to do something (e.g. tying up one’s hair as in (28)).

4.1.5. Interim Conclusions

The accusative-instrumental case alternations outlined above all share the generalization that the accusative correlates with the object being more affected, and the instrument generally indicates that the argument is peripheral to the event, not affected by the action, but used to perform the action in some way\textsuperscript{16}. Below, I will show that this analysis is in line with Dowty 1991’s theory of Proto-Roles, and that this difference in case reflects and underlying difference in argument and event structure of the verb.

\textsuperscript{15} Rolandas Mikulskas, Zydrune Mladineo, Elvyra Petrašiūnienė, Giedras Subačius and Martynas Vasiliauskas graciously supplied me with judgments and examples of their own.

\textsuperscript{16} See Šukys 2005, who concludes that instrumental in Lithuanian is used to express “means” of performing an action, while accusative indicates the object is an undergoer of the action.
4.1.6. What the Alternations are not: Differential Object Marking (DOM)

Differential object marking\(^{17}\) is a strategy that various languages employ to distinguish between semantic groups of nouns when they occur as direct objects. The semantic classes vary from language to language, but cross-linguistically frequent categories are animacy and definiteness. Objects in the same structural position, with the same theta marking, can receive different morphological case markings depending on whether they are animate or definite, depending on the language. Russian (and other Slavic languages) mark animate objects differently than inanimate ones, as seen in (29).

(29) Russian animacy marking:
   a. Ja vižu knigu
      I see book:ACC
      ‘I see a book’
   
   b. Ja vižu mal’čika
      I see boy:ACC (morphologically GEN)
      ‘I see a boy’

   Turkish only uses accusative case if the direct object is definite, otherwise, there is no morphological case marking\(^{18}\) on the object:

(30) Turkish definiteness marking:
   a. Ali bir kitab-ı aldı
      Ali one book:ACC bought
      ‘Ali bought a certain book.’

   b. Ali bir kitap aldı.
      Ali one book bought
      ‘Ali bought some book or other.’ (from de Hoop & Malchukov 2008)

   The case alternations under investigation here, however, do not reflect a difference in animacy or definiteness, which is found in DOM. Aissen 2010 suggests that the conative alternation found in Finnish, based on the aspect of the verb, could be an instance of DOM, but

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\(^{17}\) Thanks to Edwin Williams, p.c., for suggesting this approach to these case alternations.

\(^{18}\) Both internal arguments are accusative, thus the suffix –ı might be better glossed as ‘definite’.
she claims there is a difference in definiteness, which falls out from the difference in aspect. The relevant example is shown in (31), from Kiparsky 1998:

(31) a. Ammu-i-n karhu-a / kah-ta karhu-a / karhu-j-a
    shoot-PST-1SG bear-PART / two-PART bear-PART / bear-PL-PART
    ‘I shot at the (a) bear / at (the) two bears / at (the) bears’

    b. Ammu-i-n karhu-n / kaksi karhu-a / karhu-t
    shoot-PST-1SG bear-ACC / two-ACC bear-PART / bear-PL.ACC
    ‘I shot the (a) bear / two bears / the bears’ (Kiparsky 1998: 267)

DOM, in general, is based on a semantic property of the object, not the verb itself or the event structure of the verb phrase. Thus, the accusative-instrumental alternations are not DOM, as there is not a semantic feature on the object that accounts for the difference in case. Rather, the case alternation is a reflection of differing degrees of transitivity: the accusative is used with higher transitivity, and thus accounts for the interpretation of the accusative object as more affected, and undergoing a change of state or location, while the instrumental is used with lower transitivity, when the object is less affected and does not undergo a change.

4.2. Affectedness, Transitivity and Event Structure

In this section, I will review the relevant literature to account for the difference in transitivity seen in the verbs that allow the accusative-instrumental alternation in Russian and Lithuanian. First, I will discuss Dowty 1991 and the theory of proto-roles, showing that his analysis of certain argument structure alternations can be extended to the verbs examined in section 4.1. Next, I will show how this can be extended to the event structure of the verb phrase, particularly to verbs of manner and verbs of motion as distinguished by Levin & Rappaport Hovav (1995) and (1997), following Letuchiy’s (2007) analysis of verbs of moving body parts. Finally, I will

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19 See Kittilä 2002 for arguments that transitivity is not homogenous, nor necessarily an all-or-nothing distinction.
examine an accusative-dative case alternation in Icelandic from Svenonius 2002, and his event structural analysis.

4.2.1. Dowty 1991: Prototypical Patients

While thematic roles do capture many facts about the lexical semantics and argument structure properties of predicates, they are a problematic notion. Primarily, the issue lies in the specific theta roles provided by Universal Grammar, or that may appear in certain languages. Not all external arguments appear to receive the same theta role, nor do all direct internal arguments receive the same theta role. Such issues of theta role assignment are further complicated by argument structure alternations, such as the *spray/load* type verbs, which have two internal arguments, either of which can appear as the direct internal argument. To account for such problems in theta theory, Dowty 1991\(^{20}\) proposed reducing many thematic roles to two protoroles, based on the prototypical features of the two primary arguments in two-place predicates: Proto-Agent and Proto-Patient. Rather than fixed theta roles, there are certain features that arguments may have for a given predicate, which determines the role, and how close the argument is to the prototypical agent or patient. The features of each are listed in (32) and (33), from Dowty 1991 (p. 572).

(32) **Contributing properties for the Agent Proto-Role:**
   a. volitional involvement in event or state
   b. sentience (and/or perception)
   c. causing an event or change of state in another participant
   d. movement (relative to the position of another participant)
   (e. exists independently of the event named by the verb)

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\(^{20}\) Thanks to an anonymous reviewer of my 2011 article ‘Case theory and case alternations: evidence from Lithuanian’ in *Baltic Linguistics* for suggesting that I investigate Dowty’s proposals for these case alternations.
Contributing properties for the Patient Proto-Role:

a. undergoes a change of state (coming into or going out of existence)
b. incremental theme
c. causally affected by another participant in the event
d. stationary relative to movement of another participant
e. does not exist independently of the event, or at all

These Proto-Roles then translate to the argument structure, with the argument with the most agent-like features becoming the external argument, and the argument with the most patient-like features becoming the internal argument. This is what Dowty calls the Argument Selection Principle (1991: 576):

Argument Selection Principle: In predicates with grammatical subject and object, the argument for which the predicate entails the greatest number of Proto-Agent properties will be lexicalized as the subject of the predicate; the argument having the greatest number of Proto-Patient entailments will be lexicalized as the direct object.

Additionally, there are two corollaries to the Argument Selection Principle for less clear-cut cases. These corollaries account for predicates with seemingly equivalent candidates for a proto-role:

Corollaries of the Argument Selection Principle (Dowty 1991: 576)

(i) If two arguments have approximately the same number of properties for a proto-role, then either may be lexicalized as the subject (or object)
(ii) For verbs with three arguments, the direct object will be the argument with the most Proto-Patient properties and the other non-subject will be an oblique or PP.

Dowty notes that there are several types of verbs that allow for various kinds of alternations between direct and oblique objects: spray/load types, fill/cover types, and hit types, shown in (36)-(38) respectively (all examples in this section are adapted from Dowty 1991). His proto-roles and the argument selection principle account for the alternations; I review his analysis below. The case alternations under investigation in this chapter bear resemblance to the verbs that allow for an alternation between direct and oblique internal objects.

(36) a. We loaded the wagon with hay
    b. We loaded the hay onto the wagon
(37)  a.  We filled the tank (with water)
b.  *We filled water (into the tank)
c.  Water filled (*into) the tank
d.  The tank filled (with water)

(38)  a.  The boy hit the stick against the fence
b.  The boy hit the fence with the stick

For the *spray/load*–type verbs, there is a difference in meaning between the (a) and (b) sentences in (36) above. In (36a), the focus is on the wagon: it undergoes a change of state, and becomes (completely) filled. In (36b), the focus is on the hay: it is affected, undergoing a change of location. For both sentences, the direct object is an incremental theme, and it is entailed that both non-subject arguments undergo a change: both the hay and the wagon are changed. However, the difference in meaning comes from the fact that only one argument is the incremental theme. Thus, as in (35), either argument can surface as the direct object, but the meaning of the sentence depends on which argument is the Proto-Patient.

This sort of alternation is not always possible, as seen with verbs like *fill* and *cover*, shown in (37) above. For these verbs, there is no alternation, as shown by the ungrammaticality of (37b); the instrument of filling (*water in this case) or covering cannot be an incremental theme. Because *water* is never the incremental theme, it can never be the direct object. In (37c), the incremental theme is still the direct object (Dowty 1991: 593, n34). The incremental theme can be the subject, as in (37d), but only if the verb is intransitive (*The tank filled*) or has a PP argument. There cannot be a second incremental theme, which would be the direct object.

The third type of verbs, shown in (38), behaves somewhat like *spray/load*–type verbs, because both non-subject arguments are equally likely candidates for the Proto-Patient role. However, unlike in the first subclass, neither is an incremental theme, and thus the sentences in
(38) are semantically equivalent, unlike those in (36). Furthermore, *hit* does not entail a change of state for either of the non-subject arguments, whereas a verb like *break* does:

(39) a. The boy broke the fence with a stick
    b. The boy broke the stick against the fence

The meanings of (39a) and (39b) are different, because the verb *break* entails a change of state for the direct internal argument.

These argument structure alternations reflect that semantic differences in pairs like (36)-(39) are the determining factor in which arguments are, or can be, Prototypical Patients, which are incremental themes, and which undergo a change of state. This is relevant to the case alternations discussed in section 4.1 above because the arguments marked with accusative case appear to be more prototypically patients: they undergo a change of state, and may be incremental themes, whereas the instrumental arguments are not proto-patients.

Additionally, Dowty considers whether motion can count as an entailment of change-of-state. That is, is change of position (rather than just state) a potential property of Proto-Patient? Consider the sentences in (40) and (41), from Dowty 1991 (596)\(^\text{21}\).

(40) a. swat the boy with a stick
    b. *swat the stick at/against the boy

(41) a. *dash the wall with water
    b. dash the water against the wall

While both *swat* and *dash* involve movement of an object, we need to distinguish between two kinds of movement: inherent change in location (as in *dash*), or no change in location: the object returns to the initial position (as in *swat*). Dowty suggests that the movement of an object may not be an important property of Proto-Patients itself, but change in location due

\(^{21}\) The judgments here are Dowty’s. The preposition *at* in (41) may be more felicitous than *against* for some speakers of English.
to movement appears to be a potential feature for determining the Proto-Patient. This distinction of movement types is useful in accounting for the different behaviors of verbs of moving body parts, which fall into two classes: inherent change of location (e.g. crossing one’s legs) or no inherent change in position (e.g. shrugging one’s shoulders, waving one’s hand). As shown above, the body part can become a direct object, a Proto-Patient, if the change in location is forced, as in the (13), repeated here as (42).

(42) Russian, accusative on body part argument:
   a. otkryt’ glaza/*glazami
      open eyes:ACC /*INST
   b. skreščivat’ nogi/*nogami
      cross legs:ACC /*INST

However, for the alternation with a verb like *dvigat’ ‘move’, which should encode an inherent change in location, the instrumental presents a problem. Instrumental case is used when the object moved is considered an extension of the agent, and is interpreted a true instrumental: a means of performing some movement. I will argue below that in these instances, the external argument is both the agent and the undergoer of the action.

Dowty concludes that verbs like *hit are “intermediate” (1991: 596) between the non-alternating verbs *swat and *dash. The alternation, according to Dowty, is based on a difference in the agent’s intentions: the argument that the agent intends to affect is the more “significant” one, and becomes the Proto-Patient. The notion of an agent’s intentions can be applied to the case alternations as well. The focus on the internal argument, for instance with verbs of throwing, can explain the use of accusative when the target is less likely to be hit, and the speaker’s focus is on the item thrown. If the focus is on the target, the agent’s intention and the focus of the speaker are not on the item thrown, and that internal argument is lower on the scale of Proto-Patient.
Dowty’s Proto-Patients and his argument selection principle line up with the conclusions made in section 4.1 regarding the accusative-instrumental case alternations in Russian and Lithuanian. Accusative is used when the internal argument has more properties of a Proto-Patient (crucially, change of state and causal affectedness), and that the instrumental is used when these properties are absent. However, there is a major difference between the argument structure alternations he considers, and the case alternation discussed above. The verbs under investigation have only one non-subject argument, whereas Dowty examines verbs with two non-subject arguments. I propose that argument selection alternations can occur when there is only one internal argument. The case alternations show that an internal argument need not be a direct object, and that a verb phrase does not necessarily require that its sole internal argument be a direct object, if the argument does not satisfy the features of a Proto-Patient. The data discussed above show that if an argument is interpreted as undergoing a change of state or position, it can be encoded as a direct object by virtue of having Proto-Patient features. But if the argument does not have these features, it may hold a different thematic role. In the verbs under investigation, this thematic role is Instrument, based on the function of the object in the overall semantics of the sentence.

4.2.2. Event Structure Alternations

In this section, I turn to event structure alternations found in various types of verbs, which will prove relevant for the verbs that allow for accusative-instrumental case alternations. Levin & Rappaport Hovav 1997 (henceforth L&RH 1997) examine “variable behavior verbs,” which are verbs that behave like unergative or unaccusative verbs in different syntactic structures. They

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22 Unergative and unaccusative verbs are both one-place predicates. The difference is that unaccusative verbs have derived subjects, which are underlyingly internal arguments, while the subject of an unergative verb is underlyingly an external argument. A verb like break is unaccusative in its intransitive form, while
focus on monadic verbs of sound emission; examples of these verbs are given in (43) (from L&RH 1997: 490).

(43)  *beep, buzz, creak, gurgle, jingle, ring, roar, rumble, screech, thud, tick, whistle...*

These verbs are intransitive, with the sole argument representing the emitter of the sound described by the verb. They are generally atelic\(^{23}\), so they should be unergative. However, many of these verbs take inanimate subjects, which are non-agentive, which is a property of many unaccusative predicates. Additionally, many of these verbs can also take an optional object, which is not in the basic argument structure, as shown in (44).

(44)  a. The bell jangled its first summons
     b. She warbled her way through the song

To account for the variable behavior, L&RH 1997 examine how these verbs interact with resultatives. Resultatives can be predicated of objects, as in (45a), or (surface) subjects of unaccusative verbs, as in (45b).

(45)  a. scrub the floors clean
     b. the bottle broke open

This makes for a clear test for unaccusativity and unergativity: if a resultative can be predicated of the subject of an intransitive verb, it must be unaccusative, because the resultative must be predicated of the underlying object. And, in fact, there are verbs of sound emission that are determined to be unaccusative by this test.

L&RH 1997 conclude that the variable behavior of verbs of sound emission reflects the fact that these verbs have two different meanings. One meaning is associated with

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\(^{23}\) Telicity is determined by whether or not the event a verb describes has a natural end point (*telos*) or not. In terms of Verkuyl's (1972) event typology, these are achievements and accomplishments. See chapter 2 for details.
unaccusativity, and the other with unergativity. The unaccusative meaning can be seen when these verbs function as verbs of directed motion:

(46) The elevator wheezed upward

The resultative *upward* in (46) indicates the direction of motion. Verbs of directed motion (as opposed to verbs of manner of motion) behave like unaccusatives (e.g., they use auxiliary *essere* ‘be’ in Italian, a classic test of unaccusativity/unergativity). Further evidence for this hypothesis is the fact that non-directional resultatives are ungrammatical with these verbs, as in (47), unlike with other unaccusative verbs (see (45b) above).

(47) *The phone rang to death

Such resultatives are grammatical, however, in the unergative pattern, when there is a nonsubcategorized object, as in (48):

(48) The phone rang itself to death.

Another factor that determines whether these variable behavior verbs are unaccusative or unergative is the whether or not the subject is highly agentive. A subject will be interpreted as agentive if there is directed motion: the agent is causing motion. Verbs of sound emission with agentive subjects generally cannot be used in the directed motion sense. The exception is verbs that express a concomitant sound, such as *clank* or *rustle*, as opposed to a sound produced under the control of the agentive subject (e.g., *shout*).

Verbs of sound emission are not the only verbs that can become verbs of directed motion. If accompanied by a directional resultative, verbs of manner of motion can also take on the meaning of directed motion. Furthermore, verbs of manner of motion show the same results for unaccusativity as non–directed-motion verbs of sound emission. L&RH 1997 propose that the variable behavior of verbs of sound emission and manner of motion is due to a difference in their
event structure: unaccusativity or unergativity depends on whether there is external causation or internal causation, respectively. External causation is when there are two distinct subevents described by the verb, one of which causes the other. For intransitive verbs, the causing entity need not be expressed by an overt argument. For example, the intransitive verb break is externally caused, but the entity that causes the breaking is not represented in a sentence like The lamp broke. Internal caused events, on the other hand, are intransitive verbs in which the sole argument is the causer\(^{24}\) (though not necessarily an agent), such as the verb stink.

Typically, in monadic verbs, agentivity is associated with unergativity, and telicity is associated with unaccusativity. Verbs of sound emission with inanimate subjects are atelic and non-agentive, but looking at the type of causation allows us to classify them as either unaccusative or unergative. If the intransitive verb denotes an internally caused event, the causer becomes the subject. If an intransitive verbs is externally caused, the sole argument is the theme.

The variable behavior of verbs of sound emission comes from an interaction of telicity and causation. When an agentive manner of motion verb is used in a directed motion sense, it is telic (=unaccusative) and internally caused (=unergative). If the verb is intransitive, one argument serves as both causer and theme. L&RH conclude that monadic telic verbs are unaccusative whether or not they are internally or externally caused, based on the type of resultative that is possible. Atelic verbs may be either unaccusative (if externally caused) or unergative (if internally caused). Thus, both telicity and the type of causation are necessary for classification.

The distinction that L&RH 1997 make between verbs of manner of motion and verbs of directed motion is useful for analyzing the verbs of moving a body part, as discussed in Letuchiy

\(^{24}\) Here, causer does not mean an argument of the subevent CAUSE.
(2007). However, these verbs are transitive, as opposed to the intransitive verbs discussed in Levin & Rappaport Hovav 1995. Their approach can be extended to transitive verbs, by considering internal and external causation, and telicity.

Transitive verbs of manner of movement are agentive, but the internal argument is not necessarily a theme. There is no inherent change in state or position. This can be applied to verbs of moving a body part; Letuchiy uses the distinction of verbs of means and verb of result (following Levin & Rappaport Hovav 1995) for this class of verbs. He claims that body parts in particular are not always Proto-Patients, because they can be viewed as an extension of the agent, which allows them to be marked with instrumental case even if other types of objects would be marked accusative case (e.g. *dvigat’ palcam/stul ‘move fingers:INST/chair:ACC’). Transitive verbs of directional motion, on the other hand, are telic, as there is a goal and inherent end point of the action. Letuchiy classifies these verbs as verbs of result. The internal argument is a theme, and changes position, so accusative case is expected, even on body parts.

Causation in transitive verbs can still vary\(^ {25} \), and has been examined with respect to case alternations in Icelandic by Svenonius (2002). I now turn to his analysis of the accusative-dative alternation in terms of type of causation and event structure.

4.2.3. Case and Causation

Svenonius (2002: 197) argues that “structural case is the manifestation on the NP of features which are semantically interpretable on verbal projections”: case reflects (interpretable) tense and aspect features, as in the Finnish accusative-partitive conative alternation shown in (49).

(49) Finnish partitive case as aspect marker:
   a. Riitta luki kirjan.
      Rita read book:ACC
      ‘Read read the book.’

\(^{25}\) See also Levin 1999 for an analysis of transitivity in terms of event complexity.
b. Riitta luki kirjaa.
Rita read book:PART
‘Rita was reading the/a book.’ (Svenonius 2002: 199)

From this insight, Svenonius describes case alternations in Icelandic on the basis of various event structures. Assuming that events are composed of subevents, such as a causing subevent and some other subevent, such as GO or BECOME, Svenonius accounts for the accusative-dative case alternation in Icelandic, shown in (50), in terms of temporal overlap of the subevents of a predicate.

(50) Icelandic accusative-dative alternation:
   a. þeir sópuðu rusl.
      they swept garbage:ACC
      ‘They swept the garbage.’

   b. ??þeir sópuðu rusli.
      they swept garbage:DAT

   c. *þeir sópuðu rusl í poka.
      they swept garbage:ACC in bag:ACC

   d. þeir sópuðu rusli í poka.
      they swept garbage:DAT in bag:ACC
      ‘They swept garbage into a bag.’

The verb sópa ‘sweep’ usually takes accusative case, but with the addition of the directional PP, the internal argument is marked with dative case. Svenonius argues that the sentence in (50d) has two subevents: the sweeping event, and the movement of the garbage into the bag. When two such subevents of a predicate temporally overlap, accusative case is licensed; when two subevents do not temporally overlap, dative case is licensed. These generalizations are given in (51):
(51) Distribution of accusative and dative in Icelandic (Svenonius 2002: 210-11)

a. In syntactic context $\alpha$ representing an event $x$ composed of subevents $y$ and $z$, accusative case is licensed in $\alpha$ iff the temporal extension of $y$ is identical to the temporal extension of $z$.

b. In syntactic context $\alpha$ representing an event $x$ composed of subevents $y$ and $z$, dative case is licensed in $\alpha$ iff the temporal relationship between $y$ and $z$ is not total overlap

Because both $\nu$ and $V$ are the hosts of the two subevents, and are involved in licensing case on the internal argument, this is a bipartite analysis of case assignment: two functional heads are involved. The evidence for this relationship between case and event structure is seen in certain Icelandic verbs of motion, which can license either accusative or dative on the internal argument, as shown above in (50). The choice of morphological case is related to whether the causer (represented as the external argument) is involved throughout the motion, or only in causing the motion. That is, are the subevents $cause$ and $go$ temporally identified (with the causer involved throughout) or not?

Verbs of “ballistic” motion like $kasta$ ‘throw, fling, hurl’, $henda$ ‘throw away’ take dative, and the two subevents are not temporally identified. The motion of the object is caused by the external argument, but continues after the involvement of the agent stops. Other verbs that express similar movement of the object, independent from the actions of agent/causer, also take dative: $dreypa$ ‘drip’, $fleyta$ ‘float’, $sleppa$ ‘release’.

However, verbs of caused or directed motion like $draga$ ‘pull, drag’, $flytja$ ‘move, carry’ take accusative: two subevents are temporally identified. The agent’s actions and involvement continue as long as the motion continues, and when the agent’s action stops, so does the movement of the object.

Just as with the verbs under investigation in section 4.1, some verbs allow two possible cases, depending on whether they are interpreted as ballistic motion or affected-object verbs.
According to Svenonius, the choice of dative or accusative in Icelandic verbs of motion is related to whether causer is involved throughout motion (internal causation), or only in causing the motion (external causation): are subevents \textit{cause} and \textit{go} temporally identified or not? This alternation is shown in (52):

(52) Motion alternations: accompanied/directed motion (ACC) vs. ballistic motion (DAT)

a. skjóta fuglinn ‘shoot the bird’ (ACC)
   
   b. $[vP \text{ Agent cause } [VP \text{ Theme } \text{ GO } ]]$
      
      $\text{___[ACC] ___/}$

   c. skjóta kúlunni ‘shoot the bullet’ (DAT)

   d. $[vP \text{ Agent cause } [VP \text{ Projectile } \text{ GO } ]]$
      
      $\text{___[DAT] ___/}$

Additionally, Icelandic has a benefactive case alternation: verbs that normally have accusative objects can license dative if the object is a sentient being that can benefit from the action, as in (53):

(53) a. Kristín þvoði handklæðið
      Kristin washed the.towel:ACC
   ‘Kristin washed the towel’

   b. Kristín þvoði barninnu
      Kristin washed the.child:DAT
   ‘Kristin washed the child’

   c. $[vP \text{ Agent cause } [VP \text{ Theme BECOME ‘clean’ } ]]$
      
      $\text{___[ACC] ___/}$

   d. $[vP \text{ Agent cause } [VP \text{ Benef HAVE ‘clean’ } ]]$
      
      $\text{___[DAT] ___/}$

These verbs have an “aspectual signature” more like ballistic motion verbs: the subevent of \textit{V} does not temporally overlap with the subevent of \textit{v}. It appears the presence of a benefactive internal argument changes the aspectual signature of \textit{V}, as evidenced by other verbs with a
benefactive meaning that also have dative internal arguments: hjálpa ‘help’, þakka ‘thank’, sinna ‘care for’.

Extending this analysis to the accusative-instrumental alternations in Russian and Lithuanian, the presence of an affected object could also result in the change of the aspectual signature of V in Russian and Lithuanian. Most importantly, the notion of a causing subevent distinct from the rest of the event opens up the possibility of temporal overlap vs. non-overlap. This can be related to a decompositional phrase structure, in which event structural primitives are represented as functional heads in the syntax. There is unrelated evidence for separating out the causation component of the functional head v (v-CAUSE) as the part responsible for assigning accusative. The other component is the projection of the external argument, labeled v-VOICE (cf. Pylkkänen 2008, Lavine 2010a). When the agent is interpreted as acting on the internal argument, accusative is possible due to the temporal overlap in v-CAUSE and V, following Svenonius’ analysis of Icelandic case alternations with verbs of motion. In the following section, I examine this sort of event structural approach to the accusative-instrumental alternations in Russian and Lithuanian, as well as an argument structure approach.

4.3. Structural representation of case alternations

In the previous section, I examined various approaches to argument structure and event structure alternations, and will now propose an analysis of the case alternations in terms of the above. Following Ramchand 2008’s decompositional event structure, in which the subevents of a predicate are represented structurally, I will propose a structural analysis of the verbs that allow either accusative or instrumental case on the internal argument. In this framework, the various types of event structures, e.g. internally or externally caused events, can be seen to have different phrase structure representations, and the facts of argument realization (e.g. unaccusativity)
follow naturally from these structural representations. Furthermore, the notion of Proto-Patient
will also play a role in determining the structural position that an internal argument occupies.
First, however, I will present an analysis based on the novel approach to representing argument
structure described in Babby (2009).

4.3.1. An Argument Structure Based Analysis of Accusative-Instrumental Alternations in
Russian and Lithuanian

One possible approach, as discussed in chapter 2, is to account for all alternations at the syntactic
level through systematic representations of the argument structure. One underlying assumption
for such a theory, as presented in Babby 2009, is the uniformity of projecting argument structure
to syntactic structure.

Babby’s framework gives a formal representation of two components of a predicate’s
argument selection: category, or c-selection (e.g. NP or PP argument, but also any case
requirements), and semantic, or s-selection (e.g. theta roles assigned by a predicate). These two
types of selection are given in separate tiers of the argument structure module, when represented
in a table, or on either side of a caret (the symbol ^) in the linear representation. The c-selection
properties are given on the bottom tier, or left of the caret, and the s-selection properties are on the
top tier, or right of the caret. Additionally, Babby makes the claim that no verb projects more
than three arguments\(^{26}\), thus the formal representation has four slots: three for the potential
arguments, and one for the predicate (or argument-structure modifying affix). The leftmost
argument, in the first position is the external argument, followed by the direct internal argument,
in the second position. The third position holds any additional internal argument (e.g. recipients,
instruments, locations), and the fourth position holds the predicate or affix whose argument

\(^{26}\) The one exception may be the English verb *bet*, which can have four arguments in the sentence: *John_1 bet Bill_2 five dollars_2 on Mike Tyson_4.*
structure is being represented. There are a total of eight positions (two tiers, four columns) in the diathesis, each of which may be filled or empty. An example of a three-place predicate is given in (54):

(54)  
   a. John\textsubscript{i} gave a book\textsubscript{j} to Sally\textsubscript{k}  
   b. \{i^N\}_1 \{j^N\}_2 \{k^{P_{TO}}\}_3 \{^-\text{give}\}_4

Each of these eight positions projects to the same syntactic position, since the diathesis represents a dedicated argument structure derivation that happens before projection to the syntax. The details of the projection to syntax are not relevant for this discussion, since we are trying to account for the argument structure of the accusative-instrumental case alternations, not necessarily the full syntactic structure. It is relevant that only full columns (such as all of the curly-bracket sets in (54)) can project to the syntax: there must be a theta role and categorical information to host that theta role.

In addition to representing the arguments that are present, a diathesis provides other information about the argument structure of a predicate or affix. A hyphen (the symbol \textendash) indicates that a slot is barred from being filled. Elements may be optional, and are placed in parentheses. Additionally, the tiers may not line up in an initial diathesis, resulting in operations that move around the theta roles or categories that are marked with the theta roles.

The diathesis model can also represent affixes which can alter the argument structure of a predicate, such as the passive or causative. Argument structure altering affixes may differ from language to language in whether or not they are overt (e.g. the English middle is null, while the Russian middle is not). The way in which the affix alters the argument structure is encoded into its diathesis. For instance, the passive removes the external theta role (dethematizing the agent) and the internal argument’s c-selection slot (removing the ability of the internal argument to project to that syntactic position).
(55) a. Passive diathesis:
\[ \{ \^ \} _1 \{ \_\} _2 \{ \^ \} _3 \{ \_\_\} _4 \]

b. Resulting diathesis \(((54b) + (55a))\):
\[ \{ j^N \} _1 \{ ^j \} _2 \{ k^P \} _3 \{ i^V + af \} _4 \]

c. A book\(j\) was given to Sally\(k\) (by John\(i\))

When a verb’s diathesis combines with the passive diathesis, the result is the \(j\) theta role moves to the external argument slot in order to project to the syntax. The external theta role, \(i\), moves to the fourth column, which allows it to be expressed as an optional by-phrase.

I will now turn to the specifics of how Babby’s argument structure-based analysis could account for the accusative-instrumental alternations discussed in 4.1. The assumption for case marking in this framework is that, barring a lexical case requirement, direct internal objects are marked accusative, and indirect objects will receive a theta-related case (or occur as prepositional phrases, with similarly theta-motivated prepositions). Thus, the case alternations discussed in this chapter will likely be the result of argument structure alternations, which are themselves due to changes in the diathesis during the derivation of the final argument structure.

The most straightforward of these accusative-instrumental case alternations is the “antipassive” analysis of the verbs of throwing, where the accusative is the basic, neutral case, and the instrumental is the marked variant, indicating the decreased level of involvement on the part of the agent (cf. Palmer 1994: 19-20). Related to this semantic aspect of the case alternation is the association of the accusative case with affectedness of the object, which is not observed with instrumental case objects. Thus, it can be conceived of as a “transitivity” alternation, where the accusative is truly transitive, with a direct internal object, and the instrumental is intransitive, because the argument is an indirect object. This is quite easily represented in the argument structure-based theory of Babby 2009.
Basic diathesis for Russian brosat’ ‘to throw’ with accusative:
\{i^N\}_1 \{j^N\}_2 \{-^–\}_3 \{-^–\}_4

Taking the representation in (56) to be the basic argument structure of the verb, the antipassive affix is added. Its diathesis, in (57a), indicates that the direct internal argument is displaced to the right, by the symbol “–” in that position (cf. applicative derivations which also involve the right-displacement of direct objects, Babby 2009: 69). When (57a) is combined with the basic diathesis in (56), the result is (57b), which yields the detransitivized final diathesis with instrumental case on the object thrown. The instrument is used on the indirect internal argument by virtue of the semantics: the argument is interpreted as a means for performing the action, which is generally indicated with instrumental case in Russian and Lithuanian.

(56) Basic diathesis for Russian brosat’ ‘to throw’ with accusative:
\{i^N\}_1 \{j^N\}_2 \{-^–\}_3 \{-^–\}_4

(57) a. Antipassive diathesis
\{^\}_1 \{-^–\}_2 \{^\}_3 \{^af\}_4

b. Resulting diathesis ((57) + (56))
\{i^N\}_1 \{-^–\}_2 \{j^N:INST\}_3 \{-^–\}_4

This approach is able to handle both the syntactic differences, as well as the semantic ones by performing an argument structure operation of adding the antipassive affix (which is null in Russian, but could be the detransitivizing –si- affix in Lithuanian).

Next, we will apply this approach to another group of case-alternating verbs under investigation: verbs of moving body parts (in Russian and Lithuanian) and sound production (accusative on the source of sound is possible in Lithuanian only, but both languages allow instrumental to be marked on this argument). In section 4.1, I analyzed the semantic differences between instrumental and accusative for these types of verbs, concluding that instrumental indicates the means of performing an action, while accusative is again associated with being affected by the action. This is clear not only for verbs that allow only one case (e.g. only instrumental or only accusative), but also with verbs that allow either. Furthermore, there is a
degree of causation entailed in the accusative variants of the alternating verbs, particularly with
the Lithuanian verbs of sound production. Unlike the verbs of throwing, where there was a clear
distinction between a basic and derived case variant, it is less clear which should be basic or
derived for verbs of sound production and moving body parts. For verbs of sound, it may be the
case that the basic form is in fact the instrumental, and the accusative is derived. If the accusative
is derived, this is an instance of argument promotion (from the third to second position), which is
the opposite of the antipassive. Such a view is supported by the fact that not all verbs in this sub-
class allow for the accusative, namely those without the (historically) causative affix –in-, as in
(58). For verbs with body parts, there may in fact be two types (given that there are some that
only occur with accusative, and some that only occur with instrumental, as shown above in
section 4.1.3).

(58) Mergaitė šilkiais/*šilkius šlamėjo
      girl:nom silk:INST/*ACC rustled
‘The girl rustled (with) the silk’ (Ambrazas 2006: 513)

The verbs of sound production, if the assumption of underlying instrumental is correct,
would have a basic diathesis as in (59):

(59) {i^N}_1 {^–^–}_2 {k^N:INST}_3 {^–^šlamėti}_4

The intransitive sentence with verbs of sound production lack an agent argument, the {i^N}_1 in
(59), and the source of the sound is the subject, as in (60).

(60) Raktai žvangejo
      keys:NOM jingle.PST
‘The keys jingled’

This is parallel to the argument alternation in (21), repeated here as (61):

(61) Russian diathetic shift with instrumental:
   a. Ivan napolnil jamu vodoj.
       Ivan filled pit:ACC water:INST
       ‘Ivan filled the pit with water.’
b. Jama napolnila*(s’) (vodoj).
   pit:NOM filled*(REFL) (water:INST)
   ‘The pit filled with water.’

c. Voda napolnila jamu.
   water:NOM filled pit:ACC
   ‘The water filled the pit.’ (adapted from Babby 1998)

Babby’s analysis of (61) is that there is a null affix that deletes the external theta role i and the N in \{k^N:INST\}3, which triggers the promotion of the k theta role to the unlinked external N. The derivation of (60) is shown in (62).

(62)  a. \{i^N\}_1 \{-\}_2 \{k^N:INST\}_3 \{-\} \{žvangeti\}_4 +
   b. \{-\}_1 \{\}_2 \{\}_3 \{\} \{Ø\}_4 >
   c. \{-\}_1 \{-\}_2 \{k^\_\}_3 \{-\} \{žvangeti-Ø\}_4 >
   d. \{k^N\} \{-\} \{-\} \{-\} \{-\} \{žvangeti\}

Now we consider the accusative variant for verbs of sound production. This is only possible with verbs that have the –in- suffix, so this causative affix will have some function in the diathesis. Being a causative affix, it introduces its own external argument (cf. Babby 2009: 45-52 on causativization), \{i_C^N\} (where C indicates “causer”), as in (63):

(63) \{i_C^N\} \{\} \{\} \{\} \{\-in-\}

This approach is somewhat problematic. First, and perhaps foremost, this is no longer a productive affix in Lithuanian. Putting that aside, given that not all affix-driven derivations in Babby 2009 are productive (e.g. certain prefixes that introduce arguments), we are left with a second problem: why does this not function like other causativizing affixes and displace the external argument? Why can the resulting verb, e.g. žvanginti ‘to jingle’ never mean ‘to make someone jingle something’? It could be due to the fact that it is no longer a true causativizing affix, but is still associated with causative semantics. Alternatively, it could be added only to the monadic version of verbs of sound, which have the source of the sound as the derived external
argument. This means the source of the sound gets demoted to the direct internal argument. If $k$ has been promoted, then the derivation is as follows:

(64) a. $\{k^N\}_1 \{\vdash\}_2 \{\vdash\}_3 \{\vdash\}^\nu \na...
(68) \{i^N\} \{\neg^N\} \{k^N\} \{\neg\^\text{žvanginti}\}

If the direct internal N is selected, then the k would promote because an unlinked N cannot project to the syntax. One problem here, however, is how to prevent both or neither N from being selected. Crucially, there can only be one. Furthermore, the semantic difference does not seem to be captured through this analysis.

Similar issues arise when Babby’s theory is applied to the verbs of moving body parts. There are two possible positions for the body part argument, barring an analysis where the instrumental case is a lexical case. Such a solution is unsatisfactory, since it requires that the verbs that allow the case alternation to either have two separate lexical entries (one with lexical case, one with structural case, which creates unnecessary redundancy in the lexicon) or that lexical case is not actually required to appear. Thus, the basic diathesis of the verbs with case alternations must allow for both cases to occur, and some mechanism will determine which is actually projected. This could be represented as in (69), with a stipulation that one (and only one) internal argument must be selected. If the k theta role stays in place, it gets instrumental case, and if it is promoted to the 2\textsuperscript{nd} position, it gets accusative case:

(69) \{i^N\}_1 \{^N\}_2 \{k^N:\text{INST}\}_3 \{\neg^\text{linguoti}\}_4

(70) a. linguoti galva/galvą
    shake head:INST/ACC

   \textit{Lithuanian}

Based on the difference in meaning for the use of instrumental or accusative with the verbs that alternate, it seems that the internal argument is in the 3\textsuperscript{rd} position for instrumental, but promoted to the 2\textsuperscript{nd} position when accusative. This fits with the fact that the accusative is used with prototypical patients. It may be that there is an affix, which is null in Russian and Lithuanian, that promotes the k instrumental argument to the j position.
Finally, we turn to the verbs of dressing/wearing in Lithuanian. To determine the basic diathesis, it is important to consider the full paradigm of these verbs. The verbs of dressing (but not wearing) participate in the alternation only when reflexive, as discussed above in section 4.1.4. When these verbs non-reflexive, there is another argument involved, the person being dressed. There is still an argument structure alternation, shown in (71):

(71) a. Motina ap-avė vaiką batais 
    mother:Nom PRF-put.on child:Acc shoes:Inst
    ‘The mother put the shoes on the child’

b. Motina apavė batus vaikui
    mother:Nom PRF-put.on shoes:Acc child:Dat
    ‘The mother put the shoes on the child’

This is reminiscent of spray/load alternations, which are represented in the argument structure-based theory as (72), a likely candidate for the basic diathesis of non-reflexive verbs of dressing:

(72) \{i^N\} \{-^N\} \{j/k^N\} \{-^avę\} ‘wear shoes’

Normally, the reflexive affix replaces the direct internal argument, although in Lithuanian the reflexive affix–si- can be associated with a benefactive relation, indicating that the action is not performed on oneself but for the benefit of oneself. In the benefactive instances, an accusative, direct internal argument is still possible. It could be the case, given this basic diathesis in (61), that the k remains in both positions, and the –si- is associated with the action being performed on oneself, which fits the semantics of the verb. In fact, this is what we must conclude, because the reflexive verb allows for both instrumental and accusative, as in (73).

(73) Motina ap-si-avė batus/batais.
    mother PRF-REFL-put.on shoes:Acc/Inst
    ‘The mother put on shoes.’

The verbs of wearing are more complicated. These verbs do not allow a second argument, as shown in (74).
(74) a. Motina avėjo batus/batais.  
   mother wore shoes:ACC/INST  
   ‘The mother was wearing shoes.’

   mother wore child:ACC shoes:INST

   woman wore shoes:ACC child:DAT

In this case, we seem to be left with the same problems as with the verbs of sound and body parts above: we can represent the information about the diathesis, as in (69) above, but there must be a stipulation that only one argument can project to the syntax, and one argument must project.

The theory of argument structure proposed in Babby 2009 does not fully account for the case alternations without stipulation of a null affix to drive an operation that would license one case or the other. One possible solution to this problem is to allow for some representation of event structure in the diathesis; if telicity were indicated, the appropriate case could be predicted for verbs of throwing, and possible other types of case-alternating verbs as well. Additionally, it is not clear if the diathetic representation can capture the subtle semantic differences discussed above in section 4.1. As noted in chapter 2, this representation of argument structure does not account for the event structure based argument relations, and thus I turn to a decompositional analysis which can capture the event structure relations.

4.3.2. *First-Phase* Syntax Approach

Another approach to argument structure alternations, which also takes into account event structure, is Ramchand’s (2008) “first phase” syntax\(^{27}\), as discussed in greater detail in chapter 2. The goal is to represent the selection properties (e.g. argument structure and lexical semantics) of

\(^{27}\) The term “first phase” refers to the fact that the vP (the first phase in Chomsky’s (2001) derivation by phase) houses the event structure and argument structure of a predicate.
predicates in a structural representation of the event structure. As with the argument structure representation of Babby 2009, discussed above, this allows for a mapping of argument structure directly to the syntax. Ramchand’s proposal differs from Babby’s in that there is no intermediate stage dedicated to argument structure. Rather, arguments map directly to the phrase structure on the basis of their relation to the event structure. Argument structure alternations are accounted for by the structural relationships between the arguments and the subevents.

I provide here a general review of the theory before turning to an analysis of accusative-instrumental alternations in Russian and Lithuanian that uses this approach to argument realization.

Ramchand’s framework provides a decompositional view of event structure, as an expanded vP, in which there are multiple functional projections that can capture the variety of argument relations that exist in eventive predication. Events are decomposed into three subevents: init, the causing subevent, proc, the process-denoting subevent, and res, the result state subevent. The order of these heads is fixed, so that res cannot take either procP or initP as its complement, and proc cannot take initP as its complement. However, each is optional, so long as the order is obeyed. Each subevent projects a phrase, which can have an argument in its specifier. The specifier of init is the Initiator of the event, the external argument. The specifier of proc is the Undergoer of the event. The specifier of res is the Resultee of the event. The full structure is shown in (75):
Furthermore, each head can take a “rhematic” XP complement, which gives additional information or a description of the event. The RHEME complement of $proc$ is a PATH, the trajectory traversed by an UNDERGOER. The RHEME complement of $res$ is a location.

This system also allows for identification between heads, and between subjects: “…lexical items appear to impose a requirement concerning whether the specifier positions made available by the subevental heads are filled by distinct nominal projections, or by the same nominal projection.” (Ramchand 2008: 60). Using a copy theory of movement, the same root can occupy more than one head. The verb moves from, e.g., $proc$ to $init$. This would be the case in a transitive sentence where the verb has both a process subevent and an initiation subevent. Similarly, DP subjects can start lower in the structure and move to higher positions, e.g., from Spec-$proc$ to Spec-$init$. The copy left behind leads to the identification between them. Thus, a verb with only one argument could still have an initiator, undergoer and resultee, so long as all three subjects are identified by the same lexical item. Examples of these composite roles (when the same argument is the holder of multiple states) are shown in (76), from Ramchand 2008:
In (76e), the initiator-undergoer is a composite role due to the same argument being the holder of an initiational state and a changing property. The same is true for the resultee-undergoer in (76f): a single entity is undergoing a process and the holder of the result of this process.

In the remainder of this section, I will lay out my analysis of the case alternations based on Ramchand’s decompositional event structure. In the structures that follow, I follow Pylkannen (2008) and Lavine (2010) in splitting vP into CAUSE, which licenses accusative case, and VOICE, which introduces the external argument. The UNDERGOER position hosts Prototypical Patients, maps to the specifier of VP. I will retain the res head as an indicator of telicity (change of state for UNDERGOERS). If there is no resP, the complement of V is an instrumental rhyme.

4.3.2.1 Verbs of Throwing

Following Svenonius’ analysis of verbs of throwing in Icelandic, the Russian and Lithuanian verbs license accusative when the causing subevent temporally overlaps with the throwing event. Like Icelandic verbs of directional movement, the causer is involved throughout the motion. The accusative object, as shown in (77) below, is causally (and intentionally) affected by the agent, so it is a Prototypical Patient and occupies the UNDERGOER position. There is not necessarily a change of state, so the structure in (78) has no resP, but a target PP could be an adjunct in VP.

(76)  a. Pure INITIATOR: *The key opened the lock*
b. Pure UNDERGOER: Karena drove *the car*
c. PATH: Ariel ate *the apple*; Kayleigh drew *a circle*
d. Pure RESULTEE: Katherine ran *her shoes* ragged
e. INITIATOR-UNDERGOER: Karena ran to the tree; *The diamond* sparkled
f. RESULTEE-UNDERGOER: Michael pushed *the cart* to the store

Russian

(77)  a. Mal’čiki brosili kamni v okno
boys threw stones:ACC at window
‘The boys threw stones at the window’
Instrumental case with verbs of throwing occurs with non-overlapping causing events, like dative case with verbs of ballistic movement in Icelandic, discussed above in section 4.2.3. The causer is not involved throughout the movement of the object, so it is not causally affected by the agent (from the perspective of the speaker), so the internal argument is not a Prototypical Patient, even though there is technically a change of position. The instrumental NP is a rheme complement of V (a PATH in terms of Ramchand 2008), as shown in the structure in (80). The unoccupied specifier of VP can host a reflexive particle, as in the Lithuanian reflexive verbs of throwing, as in (79b). This position is where accusative is licensed, explaining why reflexive verbs of throwing never have accusative objects. Russian does not have reflexive verbs of throwing, but only Proto-Patients may occupy the UNDERGOER position. Thus, the internal argument must be in a lower structural position, shown in (80).

(79) a. Mal’čiki brosili kamnjami v okno
   boys threw stones:INST at window
   ‘The boys threw stones at the window’

b. Berniukai mète(-si) akmenimis į langą
   boys threw(-REFL) stones:INST at window
   ‘The boys threw stones at the window’
Letuchiy 2007 divides verbs of moving body parts into verbs of means and verbs of result (following Levin & Rappaport Hovav 1995). Verbs of means can have accusative objects, but when the object is a body part, instrumental is used because body parts are not Prototypical Patients, partly because they are extensions of the agent and do not undergo the action in the same way as other types of arguments do. Verbs of result always license accusative, even if the object is a body part, because there is an irreversible change to the patient, which makes the argument a Prototypical Patient.

In the structure in (82), which represents verbs of moving a body part with accusative, the internal argument is in the UNDERGOER position, as it is a Prototypical Patient. There is also a resP, due to the change of position. The body part is a RESULTEE and UNDERGOER. The addition of the result phrase changes the event structure, so the object cannot be an instrumental rhyme for verbs of result.

(81)  
a. Anna skreščivala nogi/*nogami
      Anna crossed legs:ACC/*INST
      ‘Anna crossed her legs’

b. Ona sukrižiavo kojas/*kojomis
      Ona crossed legs:ACC/*INST
      ‘Ona crossed her legs’

4.3.2.2 Verbs of Moving Body Parts

Letuchiy 2007 divides verbs of moving body parts into verbs of means and verbs of result (following Levin & Rappaport Hovav 1995). Verbs of means can have accusative objects, but when the object is a body part, instrumental is used because body parts are not Prototypical Patients, partly because they are extensions of the agent and do not undergo the action in the same way as other types of arguments do. Verbs of result always license accusative, even if the object is a body part, because there is an irreversible change to the patient, which makes the argument a Prototypical Patient.

In the structure in (82), which represents verbs of moving a body part with accusative, the internal argument is in the UNDERGOER position, as it is a Prototypical Patient. There is also a resP, due to the change of position. The body part is a RESULTEE and UNDERGOER. The addition of the result phrase changes the event structure, so the object cannot be an instrumental rhyme for verbs of result.
Verbs of moving a body part with instrumental case, on the other hand, are verbs of means. They are atelic, because there is no inherent change of state or position in the action described by the verb, therefore there is no resP. Because the body part is construed as an extension of the agent, I propose that there is identification of Agent and UNDERGOER, which is indicated in (84) by coindexation of the NP. This also captures the fact that the body part itself is not affected, and interpreted as a means for performing the action.

(83) a. Anna požala *pleči/plečami
   Anna shrugged shoulders:*ACC/INST
   ‘Anna shrugged her shoulders’

   b. Ona traukė pečius/pečiais
   Ona shrugged shoulders:ACC/INST
   ‘Ona shrugged her shoulders’

(84)
As shown in (83b), Lithuanian can have accusative with verbs of body parts that are generally interpreted as verbs of means like ‘shrug’, while Russian can only have instrumental on this argument. However, as discussed in section 4.1.2 above, this is possible when the verb can be a verb of result and the body part is a more prototypical patient, e.g. the addition of a directional end point, in (15), repeated here as (85).

(85) Russian accusative with verb of moving body part:  
*Provesti jazyk vpered meždu perednimi verkhnimi zubami i verkhnej guboj i vesti k soedineniju pravoj verkhnej desni i vnutrennej časti pravoj ščeki.*  
‘Draw your tongue:ACC forward between the front upper teeth and the upper lip, and draw it towards where the right, front gums and the inside part of the right cheek meet.’ (http://kopilkanm.ru/comment_1283453886.html)

My analysis accounts for this difference with the representation of the event structure. Verbs of result have a resP, the internal argument is an undergoer-resultee. This also accounts for the lack of interpretation of the body part as an extension of the agent when the accusative is used, and why the use of accusative is marked: body parts are by default extensions of the agent. However, when the body part is interpreted as an undergoer, the agent cannot be identified with this position, as in (82) above.

4.3.2.3 Verbs of Sound Production

Verbs of sound behave differently in Russian and in Lithuanian; only the latter allows the accusative-instrumental alternation, although verbs in both languages participate in an argument structure alternation. First I will present my analysis of the argument structure alternation, in which the source of the sound can be the sole argument, the nominative subject, or an instrumental internal argument if there is an external argument that is using the internal argument to create a sound. In the monadic version, as in (86), there is no resP because there is no change of state or position entailed by the action.
Additionally, these verbs appear to be unaccusative, based on the word order, so the source of the sound is not a true external argument, and therefore not in the specifier of CAUSEP. However, these verbs do involve external causation, and Levin & Rappaport Hovav (1997) conclude that unaccusative, externally caused predicates are atelic, accounting for the lack of a resP follows. The lack of a CAUSEP means accusative case is not licensed, thus the sole argument is an undergoer, in the specifier of VP, but not marked with accusative. The phrase structure is shown in (87); V is identified with v-VOICE and yields the correct verb-subject word order. Note that if Ramchand is correct, and all argument structure relations are represented in the phrase structure, the source of sound NP can originate as an instrumental theme complement of V, and then move to the specifier of VP.

The dyadic verbs of sound, shown in (88), differ from their monadic counterparts (above in (86)) in the presence of an external argument, and the instrumental case on the NP that refers to the source of the sound.

(86) a. Gremit posuda
    rattle dishes:NOM
    ‘The dishes are rattling’

b. Barška indai
    rattle dishes:NOM
    ‘The dishes are rattling’

(87) \[
\begin{array}{c}
  \text{v-VOICEP} \\
  \text{VP} \\
  \text{NP:NOM} \\
  \text{V'} \\
  \text{V} (\tilde{NP})
\end{array}
\]

(88) a. Ženščina gremit posudoj
    woman rattles dishes:INST
    ‘The woman rattles the dishes’
b. Moteris barška indais
   woman rattles dishes:INST
   ‘The woman rattles the dishes’

The internal argument is not a Prototypical Patient, so it cannot be an UNDERGOER. Following Paducheva 1998, a null cognate object, meaning “a sound” occupies this position. The NP representing the source of sound remains in the complement of V, and is an instrumental rheme. VoiceP is not necessary, as there is no accusative case possible. The structure is shown in (89).

(89)

\[
\text{v-CAUSEP} \\
\text{NP:EA} \quad \text{v-CAUSE’} \\
\text{v-CAUSE} \quad \text{VP} \\
\text{sound} \quad \text{V’} \\
\text{V} \quad \text{NP}_{\text{INST}}
\]

Lithuanian, unlike Russian, also has a causative version of many verbs of sound production. As with other case alternations, the accusative occurs when the NP is an UNDERGOER, and is instrumental otherwise. The alternation is shown in (90):

(90) Apsaugininkas žvang-in-o raktus/raktais
   guard jingle-CAUS-PST keys:ACC/INST
   ‘The guard jingled the keys’

The causative verbs of sound can be related to the event structural analysis of Icelandic accusative-dative alternations, as discussed above in section 4.2.3. Recall that in Icelandic, accusative case is marked on the internal argument when the agent is involved in both the causation and the caused action, and temporal overlap of these two subevents occurs, and dative appears on the internal argument when there is not such temporal overlap. For Lithuanian, the only difference is that it is instrumental case rather than dative in instances of non-temporal
overlap. Additionally, accusative in Lithuanian verbs of sound production is licensed on Prototypical Patients. If the source of sound is not a Proto-Patient, the cognate object sound can occupy this position in the structure, as in (89). The structure in which accusative is marked on the internal argument of a causative verbs of sound in Lithuanian is given in (91). Here VoiceP is required to license the accusative, unlike the non-causative verbs of sound above.

(91)

4.3.2.4 Verbs of Dressing & Wearing Clothing

The last class of verbs only allows the accusative-instrumental alternation in Lithuanian. All members of this class can have either instrumental or accusative on the internal argument. As discussed in section 4.1.4, there are two main types of verbs: those that describe wearing an item of clothing, and those that describe putting an item of clothing on. The latter is reflexive if the subject is dressing oneself, which is when the case alternation is allowed. Both types of verbs are shown in (92):

(92) Moteris avėsi /avėjo batus / batais
woman put-on/wore shoes:ACC/INST
‘The woman put on / wore shoes’

These verbs behave like spray/load verbs, in the sense that the internal argument is not always interpreted as a Prototypical Patient. Unlike spray/load verbs however, there is only one
internal argument. Thus, if the internal argument is a Proto-Patient, it is marked with accusative case, but if it is not, it is marked with instrumental case.

As with the other verbs that allow the alternation, the structure will be different for the two possible case markings. Only Proto-Patients can occupy the UNDERGOER position, which is marked with accusative case. The presence or absence of resP is unimportant, but the NP representing the item of clothing could be conceived of as a holder of the result state for verbs of dressing. The reflexive verbs with accusative must be of the dative reflexive type. If the reflexive marker is present, it is a Rheme, describing the path or location. The structure for accusative with verbs of dressing & wearing is shown in (93).

\[(93) \quad \begin{array}{c}
\text{v-VOICE} \\
\hline
\text{NP:EA} \\
\text{v-VOICE'} \\
\hline
\text{v-VOICE} \quad \text{v-CAUSE} \quad \text{VP} \\
\hline
\text{v-CAUSE} \quad \text{VP} \\
\hline
\text{VP} \\
\hline
\text{NP}_{\text{ACC}} \quad \text{V'} \quad (\text{REFL})
\end{array}\]

The instrumental case on the NP is used when the argument is not a Prototypical Patient, so it is a Rheme complement of V, as with the other verbs described above. For reflexive verbs of dressing, the UNDERGOER position can be occupied with refl. For verbs of wearing, which are not reflexive, the UNDERGOER position must be empty. This is somewhat surprising, but given the fact that accusative is not required for these verbs, it accounts for the data. The structure is represented in (94).
The analysis given in this section not only reflects a structural difference for the morphological case markings in the accusative-instrumental alternation, but captures the semantic difference. As I discussed in section 4.1, the accusative case is used when the internal argument is interpreted as being affected in some way, and the instrumental case is used when the internal argument is interpreted as the means for performing an action. In section 4.2, I showed how this semantic difference can be analyzed in terms of the Proto-Patient role of Dowty (1991), related to the higher degree of transitivity found with the accusative case. An event structural analysis is also supported in Levin (1999), in which she shows that complex event structures, like the ones proposed in the decompositional approach above, are found in “core transitive verbs” (those whose arguments fit the Proto-Roles for agent and patient quite well). The semantic interpretation of the accusative and instrumental case is related to the event structure, and for this reason the decompositional analysis, based on Ramchand 2008, gives the most satisfying analysis of the case alternations under investigation here.

4.4. Chapter Conclusion

4.4.1. Implications for Case Theory

Case theory in Generative grammar has divided Case into two types: structural, which is based on the position an NP occupies in the syntactic structure, and inherent, which is not (Chomsky 1995). A third distinction, theta-related Case, has been proposed (Babyy 1994,
Woolford 2006, Richardson 2008). The correct typology of case seems to involve all three: structural, lexical, and semantic/theta case. Structural case is assigned if there is no other case requirement by the lexical item or a theta role. Nominative is generally associated with T, and appears on the external argument, and accusative is associated with v, and appears on (direct) internal arguments.

Lexical case is an idiosyncratic requirement of lexical items. It is entirely unpredictable, since it is not based on structural position or theta role, although some patterns may be found (e.g. instrumental case with verbs of control in Russian, cf. Wierzbicka 1980). Icelandic has lexical-case subjects; many languages, including Russian and Lithuanian, have lexical case internal arguments (see chapter 3 as well). One example is the distributive marker po in Russian, which requires dative case with singular NPs:

(95) Russian distributive po:
   a. S’eli jabloko
      eat:PST.3 apple:ACC.SG
      ‘They ate an apple.’

   b. S’eli po jabloku
      eat:PST.3 po apple:DAT.SG
      ‘They ate an apple each.’

Semantic case, according to Babby 1994, makes a direct contribution to the interpretation of the sentence, as in (3), repeated here as (96).

(96) Russian semantic instrumental case:
   a. Zimoj v Moskve xolodno.
      winter:INST in Moscow cold
      ‘It is cold in Moscow during the winter.’

   b. Celymi dnjami my exali lesom.
      whole:INST days:INST we travelled forest:INST
      ‘For entire days we travelled through the forest.’

This is true for nominative-accusative languages; ergative languages have different structural case patterns, but are beyond the scope of this work.
c. On staratel’’no vystrugal ee nožom
   he carefully carved it:ACC knife:INST
   ‘He carefully carved it with a knife.’

d. Moj otec rabotaet prepodavatelem.
   my father works teacher:INST
   ‘My father works as a teacher.’ (Babby 1994: 647)

The particular morphological case that appears on bare-NP adjuncts, as in (96a)-(96c), is not predictable from other constituents in the sentence, and drives the interpretation of the NP. For oblique case internal arguments, the theta role assigned by the verb is important to determining which morphological case is marked on the NP. It is predictable for certain theta roles (e.g. benefactor, goal, recipient, experiencer roles are generally marked with dative case in many languages). One problem that arises with the notion of semantic case is why arguments with the same theta-role do not always get the same morphological case. That is, why are there alternations like those of spray/load verbs? The answer lies in the argument structure: as Dowty (1991) shows, with verbs like spray and load, one internal argument is the Proto-Patient, which puts it in a structural position for accusative case. The other argument will get the appropriate case (or preposition in a language like English) based on the non-Patient theta role\(^{29}\).

I conclude that the instrumental case in the alternations analyzed in this chapter are marked with semantic case. Because there is an alternation, it is clear that the instrumental is not predictable from the other constituents, and makes a contribution to the interpretation of the sentence. It is also the theta role that determines the choice of instrumental over another non-accusative case. The arguments marked with instrumental describes the means of performing the

\(^{29}\) Babby 2009 provides an alternative proposal, with similar end results. Under his analysis, neither internal argument of a spray/load verb is the direct internal argument, but one must be promoted to the internal argument position. Arguably, the argument that surfaces as the direct object is still higher on the Proto-Patient scale.
action. Letuchiy (2007) and Šukys (2005) argue that the instrumental on body part objects is similar in meaning to instrumental of instrument, e.g. *write with a pen, hit with a stick*.

### 4.4.2. Case Theory and Event Structure

In this chapter I have argued for a connection between case and event structure. This notion is not new, and I presented examples of previous attempts to link case and event structure in chapter 2. Here I have presented novel evidence to support such previous proposals. In particular, Tenny’s (1994) proposal that direct internal arguments aspectually “measure out the event”, is supported by Finnish, in which accusative-partitive alternations are based on whether or not the VP is bounded\(^{30}\). Kiparsky 1998 calls this a conative case alternation, showing that partitive case is used with unbounded VPs, and accusative case is used with bounded VPs. Thus, case is directly dependent on telicity, as shown in the alternation in (31), repeated here as (97).

\[(97)\]
\[
\begin{align*}
\text{a. Ammu-i-n karhu-a / kah-ta karhu-a / karhu-j-a} \\
\text{shoot-PST-1SG bear-PART / two-PART bear-PART / bear-PL-PART}
\end{align*}
\]
‘I shot at the (a) bear / at (the) two bears / at (the) bears’

\[
\begin{align*}
\text{b. Ammu-i-n karhu-n / kaksi karhu-a / karhu-t} \\
\text{shoot-PST-1SG bear-ACC / two-ACC bear-PART / bear-PL.ACC}
\end{align*}
\]
‘I shot the (a) bear / two bears / the bears’ (Kiparsky 1998: 267)

A different view is proposed in Richardson (2007). She argues that accusative case does not simply mark telicity, but rather indicates whether the event structure is *compositional*. An event structure is compositional if the (a)telicity of a VP is affected by elements such as an internal argument or a lexical\(^{31}\) prefix. Lexical case-marked arguments always occur with atelic

---

\(^{30}\) A bounded VP is one that has an inherent endpoint or culmination that marks the completion of the event. See chapter 2 for a more detailed discussion of this notion.

\(^{31}\) Richardson (2007) distinguishes between three types of prefixes in Slavic, as discussed in chapter 2. Purely perfectivizing prefixes create a temporal bounder for the action described by the verb in time. Superlexical prefixes are similar, but also add information about the verb, such as time or intensity (e.g. *rabotat’* ‘work’ ~ *za-rabotat’* ‘begin to work’). Lexical prefixes are those which change the lexical aspect of a verb (e.g. make an atelic verb telic, and add directional or idiosyncratic information. These can also
two-place verbs, and only merge with a base verb whose structure is non-compositional, whereas accusative case occurs with verbs whose event structure is compositional. However, Richardson argues that semantic case is licensed by an “additional layer” of functional structure, an applicative phrase, rather than by virtue of a theta role (see chapter 2 for details).

The alternations under investigation depend on other features of event structure besides just telicity, namely the role of the internal argument in the event. Kittilä 2009 argues that accusative case is usually a marker of (prototypical) transitivity. Certain case marking strategies (e.g. nominative subject + instrumental object) are associated with decreased transitivity, especially if they occur without any associated verbal morphology (cf. overt detransitivizing markers, such as the Russian affix –sja discussed in section 3.2 in the preceding chapter). This corresponds to what I have claimed about the accusative-instrumental alternations: accusative is marked on internal arguments that are Proto-Patients. One of the features of Proto-Patients is that they can be incremental themes, which measure out the event along the lines of Tenny (1994). Thus, the accusative-instrumental alternations also relate to event structure, but transitivity (e.g. affectedness of the internal argument) is the primary source of the alternations. Thus, the difference in morphological case reflects a difference in event structure, and as I have shown, argument realization, both of which can be related to the syntactic structure. In a sense, accusative is not a just purely structural case, but associated with a particular event structure for the verbs discussed above in section 4.1.

The accusative-instrumental alternations, under my analysis, highlight a difference in Lithuanian and Russian. For Lithuanian, accusative case can be used almost as a semantic case to indicate that an argument is a Proto-Patient when it would otherwise be an instrument. This is affect the argument structure by adding or removing arguments (e.g. bit’ ‘beat’ ~ pere-bit’ ‘interfere’). See chapter 2 for details.
seen in the greater flexibility of verbs of moving body parts, and the ability of verbs of sound production and verbs of dressing to participate in this case alternation. Russian, on the other hand, is less permissive in this function of accusative case. For Russian, instrumental case is semantic, but accusative is purely structural. The fact that the accusative arguments of the case alternating verbs are interpreted as Proto-Patients is simply a side effect of their structural position.

I have not yet discussed how case, structural or otherwise, is licensed. In section 4.3.2, I suggested that accusative case is licensed by the v-CAUSE head, because it is a structural case, and therefore should be licensed by virtue of its structural position. However, as I have shown, the syntactic structure is related to the event structure, and the overall event semantics of the verb phrase relate to the use of accusative case. For semantic case, the actual morphological case is based on the theta role or the meaning of the NP in the sentences. For all the verbs under investigation in this chapter, the use of instrumental case is not only due to the fact that the internal argument is not a Proto-Patient, but also because the argument is interpreted as a means for performing the action (as also proposed by Letuchiy 2007 and Šukys 2005).

The accusative-instrumental alternation also raises questions about determining whether an NP is a true argument or an adjunct. The instrumental NPs found with the verbs that allow for this case alternation alternate with accusative arguments, but their contribution to the semantic interpretation of the sentence makes them also appear to be adjunct-like. Additionally, these case alternations relate to a much larger issue for case theory and argument structure: what is the relationship between abstract and morphological case. As I have shown, accusative case is related to the event structure and argument structure of the verb, rather than solely licensed on internal arguments. Examining languages like Russian and Lithuanian, which have rich
morphological case systems, is useful in understanding case theory, but it may not necessarily be true that languages without such morphological case systems have the same abstract case behavior.
Chapter 5. Concluding Remarks.

In this work, I have accounted for two case marking phenomena in Russian and Lithuanian, oblique passivization and accusative-instrumental case alternations, by showing that morphological case has a connection to the event structure of a predicate. As shown for Slavic in Richardson 2007, verbs that require a case other than accusative on the direct internal object cannot be telic. Note that this fact regarding the atelicity of oblique case verbs does not necessarily entail that accusative case only occurs in telic predicates. In fact, cannot be the case, given the regular occurrence of accusative in Slavic with stative predicates like Russian znat’ ‘know’. In the analysis presented in this thesis, based on the predicate decomposition framework of Ramchand 2008, telic and atelic predicates differ in the presence of a result state denoting subevent. The absence of this subevent in atelic predicates accounts for the inability of oblique case verbs to form passive participles that can be used adjectivally, or in the statal function.

The event structural approach also accounts for the difference in meaning for accusative and instrumental case in those verbs that allow either on their internal argument. Accusative is used to encode that the internal argument is undergoing a change of state, change of location, or is being acted upon by the external argument. Instrumental is used to denote the means by which an event is performed. From this analysis, we can see the difference between Lithuanian, which allows this case alternation in four classes of verbs, and Russian, which is more restrictive in licensing accusative instead of instrumental for most of the verb classes. I conclude that Lithuanian allows for accusative to be used as a semantic case, that is, a case that contributes to the interpretation of the sentence (Babby 1994). Due to the nature of the difference in meaning, I posit that accusative (even when a semantic case) is licensed in a different structural position. Because of the difference in interpretation, I show that accusative is licensed on the UNDERGOER
position (subject of the \textit{process} subevent) and instrumental is licensed on the \textsc{path} position (complement of the \textit{process} subevent), in the sense of Ramchand 2008.

In addition to the differences in event structure for structural and non-structural case, these case marking phenomena highlight a shortcoming of case theory’s traditional distinction between types of case. I argue, following Babby 1994 and Woolford 2006, that non-structural case should be divided into lexical case, a strong requirement of a particular lexical item, and semantic case, which I noted above as a morphological case marking that contributes to the interpretation of the clause. In this work, I have shown that, for internal arguments, lexical case can occur in the same structural position as structural accusative case. Semantic case, on internal arguments, is licensed in a different structural position, and the choice of case depends on the thematic role assigned to the argument. I have not provided the exact means of licensing lexical or semantic case, but all case in the Principles and Parameters framework is licensed in the syntactic structure. The approaches discussed in chapter 2 in which an applicative head licenses semantic case are probably on the right track for that reason. Lexical case should be licensed by the lexical item through similar means as other cases.

This dissertation is by no means an exhaustive exploration of the connections between morphological case marking and event structure in Russian, Lithuanian, or other related languages. Nor, however, is it the first to employ a decompositional event structure to account for case marking phenomena. In addition to those accounts given in chapter 2, Lavine (2010) shows that accusative case marking in Slavic is related to causation in the event structure, accounting for transitive impersonal sentences in Ukrainian and Russian. Such an analysis can be extended in future research to transitive impersonal sentences in Lithuanian, which include a
large number of verbs of pain/suffering, as in *Man skauda galvą* ‘My head hurts’ lit. *Me:DAT* hurts head:*ACC*.

In addition to the event structure analyses of case argued for in this dissertation, the distinction between types of case provides insight into morphological case marking as well. I have suggested that accusative case may not always be exclusively a structural case, as its use can add to the semantic interpretation of a sentence when it alternates with instrumental case in Lithuanian. This raises the question of nominative on objects, as found with impersonal sentences with dative subjects in Lithuanian. This extends to the objects of verbs of perception, even when the impersonal predicate is absent, as in *Mūsų namas jau (yra) matyti* ‘We can already see our house’ lit. *Our house:NOM* already (is) see:*INF*.

There are additional instances of unexpected morphological case marking in subordinate nonfinite clauses in Lithuanian, discussed in section 1.3.3 in chapter 1, based on Franks & Lavine 2006 and Arkadiev (to appear). In lieu of the anticipated accusative case on the internal argument, genitive case occurs if the infinitive is the complement of a verb of motion, and dative case occurs if the infinitive clause expresses the purpose of the action in the matrix clause. Both of these case markings appear to be instances of semantic case, which is associated with the theta role assigned to the argument. The exact mechanisms of how such a case marking is licensed is an aspect of grammar that deserves more attention in future research.
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