ASPECT AND CASE IN INTERLANGUAGE GRAMMARS: THE CASE OF ENGLISH LEARNERS OF RUSSIAN

IRYNA LENCHUK

A DISSERTATION SUBMITTED TO
THE FACULTY OF GRADUATE STUDIES
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

GRADUATE PROGRAM IN LINGUISTICS AND APPLIED LINGUISTICS
YORK UNIVERSITY
TORONTO, ONTARIO

JANUARY 2016

ABSTRACT

This dissertation presents the results of an empirical study that investigates the acquisition of aspect and case by English speaking adult second language learners (L2) of Russian. Richardson (2007) argues that in Russian, structural Accusative case is aspectually relevant and that it is linked to the compositional event structure of the base form of a verb. The base form of a verb is compositionally determined when addition of a lexical or telic prefix changes the grammatical aspect of a verb from imperfective to perfective and lexical aspect from atelic to telic. I refer to these verbs as Condition 1 verbs. Alternatively, the base form of a verb is not compositionally determined when it merges with a superlexical prefix that changes the grammatical aspect of a verb from imperfective to perfective but does not change the telicity of an inherently atelic verb. I refer to these verbs as Condition 2 verbs. Direct objects of Condition 1 verbs are marked with structural Accusative case, whereas direct objects of inherently atelic Condition 2 verbs are assigned lexical case. The question that is investigated in the study is whether the knowledge of Condition 1 and Condition 2 verbs is part of the interlanguage (IL) grammars of L2 learners of Russian. Specifically, whether L2 English learners understand that in Russian, perfectivity is not always equated with telicity, and a base form of verbs whose event structure is (not) compositionally determined has different case assigning mechanisms.

Six native speakers of Russian and 29 L1-English L2 learners of Russian performed the following experimental tasks: a Logical Entailment task, a Grammaticality Judgement task, and an Elicited Production task. Each task included sentences with Condition 1 and Condition 2 verbs.

A repeated measures ANOVA, where Condition 1 verbs or Condition 2 verbs were used as a within subject factor and the proficiency group as a between subject factor, showed a

significant effect for Condition 1 or Condition 2 verbs with the participants performing better on Condition 1 verbs across the three tasks. The superior performance on Condition 1 verbs is explained by the accessibility of the universal semantic feature [telic], the less marked cluster of features [+telic, +perfective] and the availability of structural Accusative case in English. A decline in performance on Condition 2 verbs is explained by the difficulties in acquiring a more marked cluster of features [-telic, +perfective], and the idiosyncrasy of lexical case.

ACKNOWLEDGEMENTS

I would like to acknowledge many people who helped me in writing this dissertation. First of all, I would like to thank my supervisor, Dr. Gabriela Alboiu, for her guidance and supervision of my academic work. Her insightful comments and suggestions have tremendously helped me make this dissertation more focussed and clearly written. I wish to express my thanks to Dr. Peter Avery for sharing with me his knowledge in the area of second language research and for providing insightful comments on earlier drafts of this dissertation. I am grateful to Dr. Kiyoko Toratani for providing very important comments that strengthen the discussion part of this dissertation.

I also want to thank Dr. Hugh McCague and Mirka Ondrack from the Institute for Social Research, York University, for helping me understand the process of statistical analysis. I especially want to thank Mirka Ondrack. Her advice was enormously helpful in choosing and applying the right statistical procedure used in this study.

This dissertation will not be possible without the participants who took part in the study. All of them were of tremendous help! I particularly want to acknowledge Victoria Stepanova and the staff of Novamova, a language school in Kiev, Ukraine, Casey Craven and Dr. Thomas R. Beyer. I also want to thank Tatiana Smorodinska, Middlebury College, and Julia Mikhailova, University of Toronto, for assisting me in recruiting the participants for the empirical study.

Finally, I would like to thank the Faculty of Graduate Studies, York University, for offering me the research funding, which was used to recruit participants and administer the tests.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATION USED IN GLOSSES

ABS	absolutive
ACC	accusative
AOR	aorist
DAT	dative
ERG	ergative
FEM	feminine
GEN	genitive
IMPF	imperfective
INF	infinitive
INSTR	instrumental
MASC	masculine
NOM	nominative
PART	partitive
PL	plural
PERF	perfective
PR	preposition
PREP	prepositional
SG	singular
SI	secondary imperfective

Chapter 1: Introduction

This dissertation presents and discusses the results of an empirical study that investigates the acquisition of lexical aspect and case by English speaking adult second language (L2) learners of Russian. The study is couched within the generative approach to second language acquisition (SLA), the goal of which is to study the underlying linguistic competence of adult L2 learners (Schwartz and Sprouse 1996; Lardiere 1998, 2008, 2009; Slabakova 1999, 2002, 2005, 2009; Prévost and White, 2000; White 2003, 2008; Montrul and Slabakova 2003; Kempchinsky and Slabakova 2005, Liceras, Zobl and Goodluck 2008: Nossalik 2009; Ayoun and Rothman 2013). Within this generative framework, it is assumed that the Universal Grammar (UG) plays a central role in the process of L2 acquisition. In particular, White (2003:3) argues that "certain properties of language are too abstract, subtle or complex to be acquired without assuming some innate and specifically linguistic constraints on grammars and grammar acquisition". Therefore, the process of L2 acquisition, similar to the process of L1 acquisition, is explained in SLA by referring to fixed universal principles and parameters of UG. Parameters are difined as "a finite set of options restricting the possible range of syntactic variation across languages" (Chomsky 1981). Once set to a specific value by exposure to evidence provided by the primary linguistic data (PLD), the parameter gives rise to a cluster of "superficially unrelated constructions" (Slabakova 1999:283) or "deductive consequences" (Lardiere 2009:177), which account for the acquisition of complex linguistic systems and those properties within this system that are not sufficiently present in the input.

To illustrate how principles and parameters work for L1 acquisition, consider the following example from Roeper and Snyder (2005). This example illustrates how English and

Swedish L1 learners acquire endocentric compounds (i.e. compounds, where one part of a compound is the head).

(1) a. [restaurant$_N$ [coffee$_N$ cup$_N$] $_N$] $_N$
b.[[gourmet$_N$ coffee$_N$] $_N$ cup$_N$] $_N$ (Roeper and Snyder 2005:154)

In their investigation of how L1 learners acquire endocentric compounds in Swedish and English, Roeper and Snyder (2005) follow the proposal by Hauser, Chomsky, and Fitch (2002), according to which recursiveness is considered to be a fundamental property of the faculty of language in its narrow sense (FLN)[1], that is "FLN takes a finite set of elements and yields a potentially infinite array of discrete expressions" (Hauser, Chomsky, and Fitch 2002:1571). However, recursive operations vary cross-linguistically. According to Roeper and Snyder (2005:156-159), English allows endocentric compound nouns phrases, as in (1a-b) above, whereas Swedish allows only one type of endocentric compounds, as shown by the grammaticality of example (2a) and the ungrammaticality of example (2b) below.

(2) a. [barn$_N$ [bok$_N$ klub$_N$] $_N$] $_N$
'book club for children'

b. *[barn$_N$ bok$_N$] $_N$ klub$_N$] $_N$
'club for (collectors of) children's books'

[1] FLN can be defined as the abstract linguistic computational system (syntax proper), which is a part of the FLB (Faculty of Language – broad sense) which also comprises the sensory-motor and conceptual-intentional systems (Hauser, Chomsky, and Fitch 2002:1570-1571).

This cross-linguistic difference is accounted for by two parameters: the first one is called the Abstract Clitic Pronoun (ACP) parameter (Keyser and Roeper 1992). [2] If it is assumed that parameters have binary values, then English and Swedish are [+ACP], and therefore, endocentric compounds are allowed in both languages. The second parameter is the (im)possibility of inserting a branching constituent into the ACP position, which is possible in English but not possible in Swedish, hence the ungrammaticality of the sentence in (2b). Roeper and Snyder (2005:161) also call the first parameter (i.e. ACP) a global parameter. It is assumed by the authors that the deductive consequences of this global parameter would be structures with a complex predicate, which include V(erb)-N(oun)P(hrase)-Particles constructions (e.g., *lift the box up*), transitive resultatives (e.g., *hammer the metal flat*), double object constructions (e.g., *gave Mary the book*), and make causatives (e.g., *make John buy the book*). An L1 learner gets access to the universal principles of recursiveness, and the two parameters mentioned above would restrict the type of compounds that a grammar of L1 learner would allow when an L1 learners is exposed to the PLD.

As seen from this example, the theoretical argument for UG with its inbuilt universal principles and parameters to be set up for specific values for different languages provides, according to Adger (2004:16), a theoretically informed explanation of how children build complex linguistic systems in a short period of time and on the basis of the insufficient and impoverished input available to them.

In line with the theoretical framework identified above, researchers who are interested in adult L2 acquisition raise questions about (i) the accessibility of UG principles by adult L2 learners; (ii) the (im)possibility of resetting parameters from an/ the L1 value to an/ the L2 value;

[2] According to the ACP, all verbs in English have an invisible Clitic position that can be occupied by different markers. For example, Dative in double object constructions without an indirect object is an example of such a marker that occupies the Clitic position. (e.g., we [vp[v[v give] Clitic] money]) (Keyser and Roeper 1992:91).

(iii) deductive consequences of a parameter. Slabakova's study (1999) on the acquisition of the parameter of aspect investigates these questions. The results of her study suggest that telicity as a universal semantic principle is accessible by L2 learners and that L2 learners are capable of resetting the parameter from the Slavic (Bulgarian) value to the English value. The study also provides evidence that the acquisition of complex predicates (e.g., *hammer the metal flat*) is contingent on parameter resetting.

Within the newest development of generative grammar, that is the Minimalist Program (Chomsky 1995, 2000), the principles and parameters approach to L2 acquisition has been reexamined and further debated in the literature.[3] For example, Lardiere (2009) states that there is no consensus in the current literature on what constitutes a parameter. In addition, she points out that deductive consequences of a parameter that account for learnability remain highly underinvestigated.[4] In her critique of the theoretical concept of parameters in linguistic theory, Lardiere refers to Minimalism with its emphasis on formal features that constitute the content of lexical and functional projections, and serve as a driving force behind syntactic derivations. In Minimalism, features are presented as a basic unit of analysis in linguistic theory and generative SLA research. Lardiere (2009) also argues that differences in the feature composition of lexical items are the locus of parametric variation observed in natural languages to the extent that

[3] A special issue of Second Language Research has been dedicated to this debate (Smith et al. 2009).

[4] It is not quite clear for example why different parameters investigated in the literature (e.g., the parameter of aspect in Slabakova 1999 and the ACP parameter in Roeper and Snyder 2005) give rise to the same deductive consequences (i.e. structures with a complex predicate). Is it the case that the researchers have investigated the same parameter by naming it differently? This example shows lack of consistency in describing parameters in the literature, a point made by Lardiere (2009). Despite Slabakova's (1999, 2005) previous work on the possibility of resetting the parameter of aspect from the L1 value to the L2 value, Slabakova (2009:313) also acknowledges that "the rosy view of parameters being responsible for a range of superficially unrelated constructions appearing in the interlanguage grammar at the same time was too good to be true anyway".

features are equated with parameters and the process of parameter re-setting with the process of selecting and assembling features into language specific lexical items and functional categories.

Inspired by developments in linguistic theory, the study of the acquisition of features has become central in the SLA research agenda (Liceras et al. 2008). SLA researchers believe that the study of feature acquisition can account for the differences between grammars of L2 learners and the grammars of native speakers and can provide a better understanding of interlanguage (IL) grammars. Thus, it has been established that features have different degrees of accessibility, and while some features are universally accessible and present in the grammars of L2 learners, others may be inaccessible to L2 learners.

The focus of this dissertation is on the acquisition of the interpretable feature [telic] and the uninterpretable feature [uCase] by adult English speaking L2 learners of Russian. The acquisition of temporal properties (i.e. aspect and tense) by L2 learners is probably one of the most researched areas in SLA, including the generative approaches to SLA (Slabakova 1999, Slabakova 2002, Montrul and Slabakova 2003, Kempchinsky and Slabakova 2005, Ayoun and Rothman 2013). In a review of three books on the acquisition of aspect (Bardovi-Harlig 2000, Li and Shirai 2000, Salaberry 2000), Slabakova (2002:186) writes that despite "the three decades of the tense-aspect acquisition research we are still far from a definitive explanatory model". She appeals to researchers to go beyond the observable (mostly) production data into comprehension experiments, to consider the role of L1 transfer in the acquisition of L2 aspect, and to investigate only theoretically driven hypotheses. The study presented in this dissertation addresses the call made by Slabakova (2002), in that (i) it includes two comprehension tasks in addition to a written production task; (ii) it considers the role of the features present in L1, such as telicity and case; and (iii) it is theory-driven in the sense that the study adopts Richardson's (2007) proposal

that structural Accusative case is an aspectually relevant case and that in Russian, it is linked to the compositional event structure of the base form of a verb. The study also adopts the claim made in generative SLA (see e.g., White 2003a, 2008; Lardiere 2008, 2009) that the formal features of L1 are also accessible in L2 acquisition.

It is also worth noting that although the acquisition of aspect by L2 learners within the generative framework has been extensively studied for some languages, e.g. Romance languages (see e.g., Montrul and Slabakova 2003, Ayoun and Salaberry 2005), there are only two empirical studies that investigate the acquisition of aspect by L2 learners of Russian, and these are the works conducted by Slabakova (2005) and Nossalik (2009). There is also a lack of empirical studies on the acquisition of case developed within the generative framework to the SLA (for a similar claim see e.g., Peirce 2013), and, to the best of my knowledge, there are no studies that investigate the acquisition of the cluster of features [telic] and [uCase] by L2 learners of Russian. By focusing on the acquisition of the two features, this study addresses the gap in the empirical research on the acquisition of aspect and case by L2 learners of Russian and contributes to the current debate on the role of formal features in SLA.

The feature [telic] constitutes the content of the functional category aspect and the uninterpretable feature [uCase] is associated with the grammatical category of case. Therefore, the discussion of the research hypotheses of the study on the acquisition of the interpretable feature [telic] and the uninterpretable feature [uCase] by L2 learners is preceded by a discussion of the grammatical categories of aspect and case.

This dissertation is structured as follows:

Chapter 1 is an introduction that sets the background for the proposed study. In particular, it discusses how generative SLA research accounts for the process of L2 acquisition. It also

focuses on the current debate that has taken place among the generative SLA researchers on the role of parameters, on the one hand, and formal features, on the other, in the process of L2 acquisition. Formal features have become central in Minimalism (Chomsky 1995, 2000), the most recent research agenda in generative linguistics and therefore, have also become central in generative SLA research (Liceras et al. 2008, Lardiere 2009). By discussing the relevant literature, this chapter sets the background for the present study that, in the spirit of feature-oriented SLA research, focuses on the acquisition of the interpretable feature [telic] and the uninterpretable feature [uCase].

Chapter 2 introduces the theoretical concepts of aspect and case and is divided into the following sections. Section 2.1 highlights the main tenets of the Minimalist Program, which is chosen as the theoretical framework of the empirical study on the acquisition of aspect and case by English speaking L2 learners of Russian. This section also includes a description of the types of features and feature checking and valuing mechanism as they are understood in Minimalism. Section 2.2 discusses the grammatical category of aspect. It introduces the difference between lexical and grammatical aspect; it shows that cross-linguistically telicity is determined compositionally based on the temporal properties of verbs and their arguments. This section also states that perfectivity and telicity should be treated as two separate constructs and that in Russian, (i) perfectivity does not always entail telicity, and (ii) not all perfective prefixes function as telicity markers. Section 2.1 also discusses some of the properties of the Russian prefixes. Section 2.3 discusses the concept of case (i.e. abstract case and morphological case) for English and Russian. It centers on the proposal that structural Accusative case is aspectually relevant; however, it shows that, in Russian, according to Ruchardson (2007), Accusative case is linked to the compositional event structure of the base form of a verb. This section also provides

the description of the mechanism of case checking and valuation as they are understood in Minimalism. Formal features and feature checking mechanisms provide the foundation for the study of the differences and similarities of the aspectual system in English and in Russian and case assigning mechanisms in English and in Russian.

Chapter 3 provides an overview of the generative approaches that are relevant to the proposed empirical study. In particular, section 3.1 focuses on describing the three major hypotheses that account for the morphological variability of IL grammars; specifically, the Missing Surface Inflection Hypothesis (Prévost and White 2000, White 2008), the Failed Functional Features Hypothesis (Hawkins and Chan 1997) and the Feature Re-assembly Hypothesis (Lardiere 2009). Section 3.2 provides a review of the two empirical studies on the acquisition of aspect by L2 learners of Russian (Slabakova 2005 and Nossalik 2009). Section 3.3 focuses on reviewing the empirical studies on the acquisition of case by L2 learners of Russian (Rubinstein 1995, Kempe and MacWhinney 1998, Lardiere 1998).

Chapter 4 states the major theoretical assumptions and research hypotheses for the empirical study. Section 4.1 outlines the variables that are controlled for in the empirical study on the acquisition of case and aspect by L2 learners of Russian. This chapter also includes a description of the empirical study, its design and methodology. In particular, section 4.2 provides a description of the participants included into the control group and the experimental group. Sections 4.4 and 4.5 provide a description of the three experimental tasks, such as the Logical Entailment (LE), the Grammaticality Judgment (GJ), and the Elicited Production (EP) tasks that are developed to test the hypotheses of the empirical study discussed in this dissertation.

Chapter 5 presents the results of the three experimental tasks used in the empirical study presented in this dissertation. Specifically, section5.2.1 presents the results of the LE task,

section 5.2.2 presents the results of the GJ task, and section 5.2.3 presents the results of the EP task.

Chapter 6 discusses the performance of the participants on the three empirical tasks used in the study to test the research hypotheses. Section 6.1 discusses the results of the LE task, section 6.2 discusses the results of the GJ task and section 6.3 discusses the results of the EP task. This chapter also includes section 6.4 that discusses the performance of the participants on the Condition 1 and Condition 2 verbs included in the three empirical tasks.

Chapter 7 presents the concluding remarks and the implications of the study. It also outlines areas for future research.

Chapter 2: Theoretical background: Minimalism, aspect and case

This chapter provides the theoretical background to the dissertation. It starts with section 2.1 that gives a general description of the concept of features, feature checking and valuing mechanisms outlined in the Minimalist Program (Chomsky 1995). Section 2.2 describes the concept of aspect with a focus on Russian versus English, and section 2.3 describes the concept of case for nominative-accusative languages (e.g., English and Russian). Section 2.4 describes the link between case and lexical aspect established for a number of languages (e.g., Finnish, English, German and Russian). Special attention is given in section 2.5 of this chapter to the proposal that links lexical aspect to case outlined in Richardson (2007). This proposal is used as the main theoretical framework that guides the empirical study discussed in this dissertation. Section 2.6 concludes the chapter.

2.1 Minimalism

According to Minimalism, the language faculty is understood as an optimal system that links sound to meaning (Chomsky 1993, 1995). Thus, the expressions generated by language must satisfy two interface component systems: one imposed by the articulatory-perceptual (AP) system, and the other by semantic/ conceptual-intentional (CI) system also known as L(ogical) F(orm). The AP system acts as an interface level mapping the syntactic component to the phonological component of the grammar, whereas the CI acts as an interface level mapping the syntactic component to the semantic component of the grammar (Hauser, Chomsky, and Fitch 2002:1570-1571). Consequently, the goal of the Minimalist Program is to understand the internal architecture of the syntactic component and how this component interacts with the interface

levels in the most economical and elegant way (Chomsky 1995, 2008; Hornstein et al. 2005; Slabakova 2006).

The Minimalist proposal is that a syntactic derivation is computed from lexical items, which are composed of phonological, morphosyntactic and semantic features. Accordingly, the study of features (e.g., the inventory, mechanism for checking, the way they are bundled together, and how they interact with each other) is of great importance, as it can provide a scientific account of the cross-linguistic parametric variation (see e.g., Chomsky 2008).

The morphosyntactic features are of two flavours: interpretable and uninterpretable. Interpretable features (e.g., telicity and perfectivity) add semantic information to the computation, and uninterpretable features (e.g., abstract case) are purely relational and syntactic in nature. In order for a derivation to be legible at LF, the syntactic level responsible for the interface with the C-I cognitive system, all the uninterpretable features present on a head (i.e. a probe) have to be deleted before being sent to LF. This is because the principle of Full Interpretation requires that "every element of P[honological] F[orm] and LF, taken to be the interface of syntax (in the broad sense) with systems of language use, must receive an appropriate interpretation" (Chomsky 1986:98).[5] Since uninterpretable features cannot be interpreted at LF, they must be deleted. Deletion implies feature checking, so before a derivation is shipped to the interface levels, all uninterpretable features must be checked and valued. Uninterpretable features are checked against a matching interpretable feature present on a constituent (i.e. goal) within the c-command domain of the probe. This is the operation Agree. Feature checking and valuing can happen locally or at a distance and this depends on feature strength. If a feature is strong, it is checked in a local syntactic relationship (e.g., Spec(ifier) –

[5] On the principle of Full Interpretation, see also Chomsky (1995, 2000).

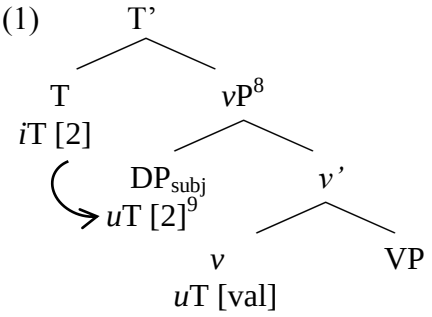
Head relationship). If a feature is weak, it is checked at a distance through the operation Agree (i.e. under c-command, which is a structural relationship based on hierarchy).

According to this proposal, once the uninterpretable feature [uF] present on the probe is checked, it becomes interpretable and it is assigned the value of the interpretable valued feature [F] present on the goal.[6] Thus, in this framework, there are the following two types of features: (i) interpretable and valued; and (ii) uninterpretable and unvalued. While valuation of a feature takes place in the syntax, interpretability has a role at LF. Interpretability is irrelevant to purely syntactic computations since features are interpreted at the interface responsible for the semantic interpretation of a derivation.

Developing these ideas (i.e. taking valuation and interpretability as indispensible properties of features), Pesetsky and Torrego (2004) view Agree as a feature sharing rather than a feature assigning operation and propose that valuation and interpretability should be treated as two independent constructs. For these authors lexical items come from the lexicon with one of the following four sets of features: (i) interpretable and valued, (ii) interpretable and unvalued, (iii) uninterpretable and valued, (iv) uninterpretable and unvalued. Uninterpretable and unvalued features can both act as probes. For example, the feature T on the head T(ense) is interpretable but unvalued, hence it is a probe. This feature probes and finds as its goal, the uninterpretable and unvalued feature uT [ ] on the subject DP.[7] As a result of the operation Agree, the link is established between the two features that become two instances of the same feature T. This is illustrated by example (1) taken from Pesetsky and Torrego (2004:11, example (17)).

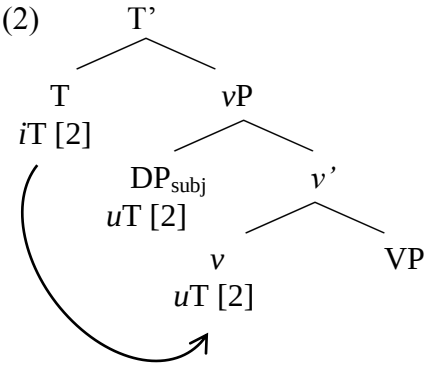
[6] Valuation/ Interpretability Biconditional (Chomsky 2001:5): A feature is uninterpretable iff F is unvalued.
[7] For Pesetsky and Torrego (2004), the uninterpretable feature uT [ ] on D is equivalent to case in generative grammar. In particular, case is an uninterpretable counterpart of the interpretable feature T.

(1)



As shown in (1), the feature T remains unvalued. In order to value this feature, the probe *i*T [ ] on T probes again and finds its goal, that is the feature *u*T [val] present on the finite verb. Since the feature *u*T [ ] on the subject DP entered in the Agree relationship with *i*T [ ] before, the valuation of the feature *i*T [ ] on T against the feature *u*T *val* leads to the valuation of the feature *u*T [ ] on the subject DP, as the two features (*i*T [ ] on T and *u*T [ ] on DP_{subj}) are instances of the same feature. In this case, Agree, as the operation of feature sharing, (i) assigns value to the feature *i*T present on T and (ii) values the feature *u*T on DP_{subj} as structural case. This is illustrated in the example (2) taken from Pesetsky and Torrego (2004:11, example (17)).

(2)



[8] According to Travis (2005:91, note 1), *v*P is the highest projection of the verbal domain, which is lower than the domain of the more traditional functional categories (i.e. categories of functional domain, such as T, as in (1) and (2)). The Head *v* is also responsible for assigning the theta role of Agent to the external argument (i.e. DP_{subj}) (see the VP internal subject hypothesis proposed in Koopman and Sportiche 1991).

[9] '[2]' is the feature value shared by both probe and goal.

In sum, Pesetsky and Torrego (2004) propose a new type of relationship between valuation and interpretability; specifically, the authors (i) view Agree as feature sharing rather than feature valuation, and (ii) suggest the existence of the two new types of feature sets. Pesetsky and Torrego's (2004) ideas are further developed by Richardson (2007) for Russian in order to account for the relationship between lexical aspect and case, which is discussed in more detail in section 2.5.1.

2.2 Aspect

This section provides an overview of aspect. Specifically, (i) it defines the concepts of 'lexical aspect' versus 'grammatical aspect' and outlines some of the major theoretical assumptions made about lexical aspect and grammatical aspect in the literature; (ii) it provides an example of how telicity is computed in English; (iii) it provides an example of how telicity is computed in Russian; (iv) it describes the relationship between perfectivity and telicity in Russian; and (v) since not all perfective prefixes function as telicity markers, this section also describes some of the properties of the Russian prefixes relevant for the empirical study discussed in this dissertation.

2.2.1 Lexical and grammatical aspect: An overview with a focus on Russian and English

Aspect is a grammatical category that describes the temporal properties of a situation. For the purpose of this dissertation, following Comrie (1976), Dowty (1979), Smith (1991), Borik (2006), Richardson (2007), and Travis (2010), I assume that there are two types of aspect: lexical and grammatical.

Lexical aspect, which is also known as 'situation' aspect (Smith 1991) or 'inner' aspect (Travis 1991, 2000, 2010), refers to how a predicate (verb phrase (VP)) describes a situation. Following the classification proposed by Vendler (1957), Smith (1991) classifies the situation types into states, activities, accomplishments, achievements and semelfactives. This classification is based on binary values of specific temporal features, such as stativity, telicity and durativity. For example, in Smith's classification, all situation types are divided into states and events depending on the value of the feature [±static], where states are static and events (i.e. activities, accomplishments, achievements and semelfactives) are dynamic. The feature [±telic], which signals the presence or absence of a natural or intended endpoint of the event and a change of state, marks states, activities and semelfactives as atelic and accomplishments and achievements as telic. According to the value of the feature [±durative], states, activities and accomplishments are characterized as durative, whereas semelfactives and achievements as instantaneous.[10] Table 1, which is adapted from Smith (1991:20), illustrates the five situation types with their distinct temporal properties presented as binary values.

[10] The event classification originally proposed by Vendler (1957) does not include semelfactives. Semelfactives are introduced by Smith (1991) as the category of multiple-event activities that combine the features of activities and achievements (i.e. they share with activities the fact that they lack an inherent endpoint, and they share with achievements the fact that they are instantaneous). However, some authors assume that semelfactives are telic (e.g., Kearns 2011) as they repeat completed cycles.

Table 1: Classification of the five situation types based on their specific temporal properties

Situation Types	Examples	Temporal Properties		
		Static	Durative	Telic
States	(3) John lives in Canada.[11]	[+]	[+]	[-]
Activities	(4) John was reading.	[-]	[+]	[-]
Accomplishments	(5) John ate an apple.	[-]	[+]	[+]
Achievements	(6) John got fired.	[-]	[-]	[+]
Semelfactives	(7) John coughed.	[-]	[-]	[-]

Grammatical aspect, which is also known as 'outer' (Travis 1991, 2000, 2010) or 'viewpoint' aspect (Comrie, 1976, Smith 1991), refers to "the internal temporal constituency of a situation" (Comrie 1976:3). The major division is between imperfective and perfective aspect. According to Comrie (1976:16-24), imperfective aspect refers to the internal temporal structure of a situation, where a situation is viewed from within. Perfective aspect indicates a completed action, where all parts of a situation are presented as a single unanalyzable whole. It is quite possible for perfective forms to be used for internally complex situations (i.e. situations that last for a considerable period of time or include a number of distinct internal phases) under the condition that a situation expressed by a perfective verb is viewed as a single complete whole. Richardson (2007:15) states that grammatical aspect focuses on the temporal perspective of an

[11] Unless stated otherwise, the examples are mine.

event irrespective of whether or not its natural or intended endpoint has been reached. Consider the examples in (8), which are both telic. In (8a), the focus is on completion (i.e. perfective aspect), whereas in (8b), the focus is on on-going, progressive action (i.e. imperfective aspect).

(8) a. John read a book.

b. John was reading a book.

In Russian, grammatical aspect often refers to the aspectual distinction between perfective and imperfective verb forms, as illustrated in (9).

(9) a. Ivan čital knig-u.
Ivan read.IMPF book-ACC
'Ivan was reading a book.'

b. Ivan pro-čital knig-u.
Ivan PF-read book-ACC
'Ivan read the book.'[12]

In (9b), the perfective form *pro-čitat'* 'PF-read' is derived when the perfective prefix *pro-* is added to the imperfective form *čitat'* 'read.IMPF' in (9a).[13] As seen in (9a), imperfective

[12] It should be noted here that Russian lacks (in)definite articles. Di Sciullo and Slabakova (2005:63) argue that in Russian and other Slavic languages without articles (e.g., Czech, Polish) "the verbal form carries the quantification information, while the objects are overtly unmarked in this respect". Specifically, the perfective verb form imposes a quantized interpretation (i.e. specific amount) on its DP object, while the imperfective verb form does not. This is illustrated in (ia, b).

(i) a. Ja jel gruš-i / tort-ø atelic
I ate.IMPF pears-ACC / cake-ACC
'I was eating (some) pears / cake.'
b. Ja s-jel gruš-i / tort-ø telic
I PF-ate pears-ACC / cake-ACC
'I ate all the pears / the whole cake.' (adapted from Di Sciullo and Slabakova 2005:63, examples (3, 4))

[13] *Čita-t'* 'read.IMPF-INF' is the imperfective infinitive form of the verbs *čita-l-ø* 'read.IMPF-PAST-MASC.SG' and *pro-čita-l-ø* 'PF-read-PAST-MASC.SG'. In (9) and in other examples throughout this dissertation, in the gloss line, I ignore the features that are not relevant to the discussion (e.g., the suffix *–t'* as the marker of the infinitive, as

forms are usually simple and not derived, whereas perfective forms are derived from imperfectives via prefixation, as in (9b). In Russian, each imperfective verb can potentially have its aspectual perfective counterpart. Borik (2006) states that since perfective prefixes are used as morphological markers of perfectivity in Russian, grammatical aspect in Russian is morphological and is encoded in the verb morphology.

It should be noted, however, that not all perfective verbs are morphologically complex and not all imperfective verbs are morphologically simple. For example, Forsyth (1970) and Borik (2006) list a number of perfective verbs that are simple rather than derived, such as *kupit'* 'buy.PF'.[14] In addition, there is the phenomenon of secondary imperfectives (SI), which are widely discussed in the literature on aspect in Russian (see e.g., Ramchand 2004, Borik 2006, Richardson 2007). SI forms are morphologically complex forms derived from perfective prefixed verbs, to which imperfective morphology is affixed; see example (10) presented below.[15]

(10) a. pro-čita-t'
PF-read-INF
'to have read'

b. pro-čit-yva-t'
PF-read-SI-INF
'to have been reading'

To make matters even more complex, Russian has a very diverse system of prefixes that in addition to marking perfectivity, can mark telicity (i.e. the natural or intended endpoint of an event). The 28 prefixes listed in the Russian Academy Grammar (Borik 2006:7) function as

---

well as the features for agreement and tense). Following the tradition established in the literature (e.g., Borik 2006, Richardson 2007), while discussing the data, I cite the infinitive form of the verb under discussion.

[14] Simple and non-derived forms of perfective prefixes are not discussed in this dissertation.

[15] See more on SI in section 2.2.4.3.

morphological markers of one of the following: (i) perfectivity and telicity without any changes to the lexical meaning of a prefixed verb, (ii) perfectivity and telicity with changes to the lexical meaning of a prefixed verb; (iii) perfectivity but not telicity. For example, the imperfective stem *pisat'* 'write.IMPF' merges with the following prefixes: *na-*, *pod-*, *po-* yielding perfective forms, such as *na-pisat'* 'PF-write', *pod-pisat'* 'PF-write' 'sign' and *po-pisat'* 'PF-write' (for a while). The prefix *na-* is the marker of telicity and perfectivity, the prefix *pod-* changes the lexical meaning of the verb from 'write' to 'sign' in addition to marking perfectivity and telicity, and the prefix *po-* marks perfectivity but not telicity. The classification of Russian prefixes with relevant illustration is presented in Table 2 below:

Table 2: Classification of Russian Prefixes

Prefix	Example
Telic prefix: [+perfective, +telic], e.g. the prefix *na-* marks telicity and perfectivity.	(11) a. na-pisat' PF-write b. Ivan na-pisal pis'mo za čas Ivan PF-wrote letter in hour 'Ivan wrote the letter in an hour.'[16]
Lexical prefix: [+perfective, +telic, +new lexical meaning], e.g. the prefix *pod-*, marks telicity and perfectivity in addition to changing the meaning of the verb.	(12) a. pod-pisat' PF-write 'sign' b. Ivan pod-pisal dokument za minutu Ivan PF-wrote document in minute 'Ivan signed the document in a minute.'
Superlexical prefix: [+perfective, -telic], e.g. the prefix *po-*, which marks perfectivity but not telicity.	(13) a. po-pisat' PF-write b. Ivan po-pisal pis'mo polčasa Ivan PF-wrote letter half.an.hour 'Ivan was engaged in letter writing activity for half an hour (and the letter was not finished).'

The example in (11) shows that in terms of perfectivity, the prefix *na-* marks the predicate as perfective. In terms of telicity, the prefixe *na-* imposes an endpoint and a change of state. The event of writing the letter has reached its endpoint after which it cannot continue. In (12) the prefix *pod-* marks the predicate as perfective. In terms of telicity, this prefix imposes an endpoint and a change of state. The event of signing the document has reached its endpoint after which it cannot continue. When *pod-* is prefixed to the verb *pisat'* 'write', its meaning is changed to

[16] The test 'in X time' and 'for X time' as a test for telicity was first introduced by Dowty (1979), who argues that the adverbial phrase 'in an hour' is compatible with telic events (i.e. accomplishments and achievements), whereas the adverbial phrase 'for an hour' is compatible with atelic events (i.e. activities and semelfactives). Telicity tests for Russian and English are discussed in more detail in section 2.2.4.1.

'sign'. In (13), the prefix *po-* marks the predicate as perfective. In terms of telicity, the prefix *po-* does not impose an endpoint and a change of state because the predicate is atelic. *Po-* signifies that performing an action, such as writing, for a while does not reach its endpoint and might continue at some time in the future.

Drawing on previous literature (Comrie 1976, Smith 1991, Borik 2006, Richardson, 2007, Travis 2010), I have established the following in this subsection. First, lexical and grammatical aspect constitute two different categories that describe the temporal properties of events. In particular, lexical aspect marks a predicate as telic or atelic, whereas grammatical aspect marks a predicate as imperfective or perfective. To quote Borik (2006:75), "(a)telicity and (im)perfectivity are independent aspectual phenomena of different levels and should be treated independently". Second, in Russian, grammatical aspect is morphologically realized via affixation on the verb. Third, following Borik (2006) and Slabakova (2005), a verbal prefix in Russian can typically function as a perfectivity and telicity marker; however, there are some prefixes (e.g., the prefix *po-* in examples (11a, b) of Table 2) that function as perfectivity but not telicity markers. In what follows, I further discuss the relationship between perfectivity and telicity, which is important for the empirical study of the dissertation. The next section starts this discussion by outlining the mechanisms of how telicity is computed in English and in Russian.

2.2.2 The compositionality of telicity: An example from English

This section provides an overview of how telicity is computed in English. Following Ritter and Rosen (1998), Verkuyl (1972, 1993, 2005, 2012) and Travis (2010), I assume that cross-linguistically aspect is compositional, which means that the aspectual information of a predicate is computed on the basis of the semantic information of verbs and their arguments. For

example, Verkuyl (2005) argues that verbs themselves do not possess any inherent goals; rather, they are restricted by the quantificational properties of their internal arguments. Thus, it is the nature of internal arguments rather than of the verbs themselves that defines the telicity of a predicate. Verkuyl (2005:22) states that for an event to be telic, a non-stative or a dynamic verb with the feature [+dynamic] should merge with a DP argument that has the feature [+quantized]. Following Verkuyl (1993:198), Borik (2006:49), and Richardson (2007:12), the feature [±quantized] refers to the (non)homogeneity of a predicate. According to Verkuyl (1993:198), "an interval is considered homogeneous if its structure does not deviate from the structure of its arbitrary chosen subintervals, that is it has subinterval property". Following Taylor (1977), Verkuyl (1993:198) further states that "homogeneous stuff 'fills' space, whereas heterogeneous stuff 'delimits' it". According to this definition, mass nouns and indefinite nouns are homogeneous, hence the feature [-quantized], as any subinterval of 'apples' are 'apples' and any subinterval of 'water' is 'water'. Countable nouns and definite nouns are non-homogeneous, hence the feature [+quantized], as any subinterval of 'an apple' is not 'an apple' and any subinterval of 'the water' is not 'water'. This is illustrated in (14) versus (15).

(14) John read the book in an hour.

(15) John read books for hours.

In (14), the verb *read* with the feature [+dynamic] merges with the DP argument *the book* with the feature [+quantized]. The combination of features as [+dynamic] and [+quantized] yields a telic interpretation of the predicate. In (14) we can see that the predicate is telic because the sentence is grammatical with the adverbial phrase 'in an hour'. In (15), the verb *read* with the

feature [+dynamic] merges with the DP argument *books* with the feature [-quantized]. This combination of features of [+dynamic] and [-quantized] yields an atelic interpretation of the predicate. In (15), we can see that the predicate is atelic because the sentence is grammatical with the adverbial phrase 'for hours'.

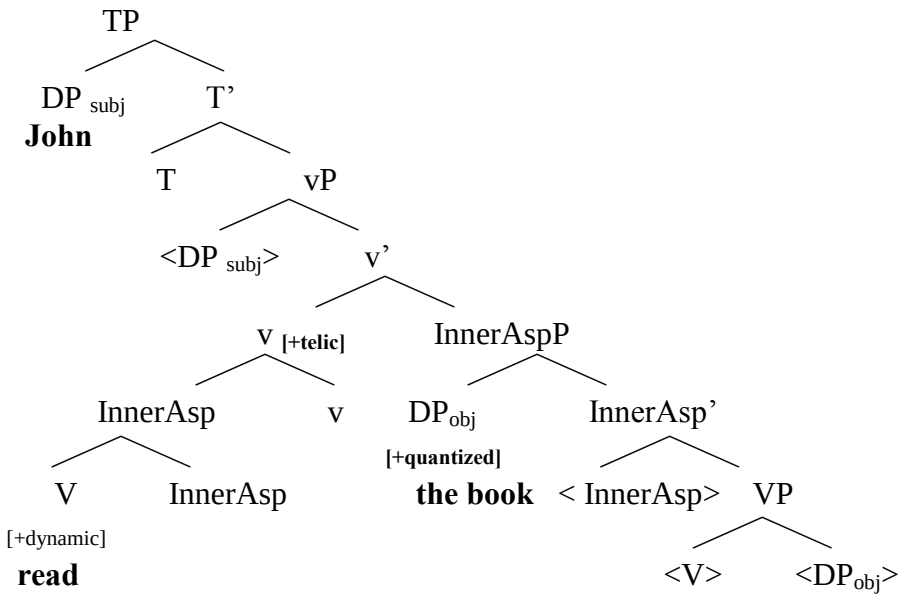
The data presented in (14) and (15) show that when the value of a semantic feature present on the DP argument of a dynamic verb changes from quantized, as in (14), to non-quantized, as in (15), the value of the whole predicate changes from telic to atelic. [17] Accordingly, a situation type changes from an accomplishment in (14) to an activity in (15). The data in (14) and (15) show that (i) telicity is computed compositionally based on the semantic properties of the verb plus its argument and that (ii) the semantic property of a DP argument as quantized or non-quantized is important for computing telicity in English.

The syntactic structure for a telic predicate in English is given in (16). [18]

[17] This generalization holds for activities and accomplishments. States are inherently atelic and achievements are inherently telic, and the telicity of the event is not affected by the status of a DP. For example *John loved a girl* is atelic, and *In his life, John realized many dreams* is telic.

[18] Recall from footnote 8 that the projection *v*P is the Minimalist extension of the VP projection. *v*P is located below the functional TP domain and is responsible for assigning the theta role of Agent to the DP subject. Once the theta role is assigned, the DP subject moves from the Spec, vP position to Spec, TP position in English. Copies left behind in movement are shown in angled brackets: "< >". Note that (16) also shows Head Movement within the predicate domain.

(16)



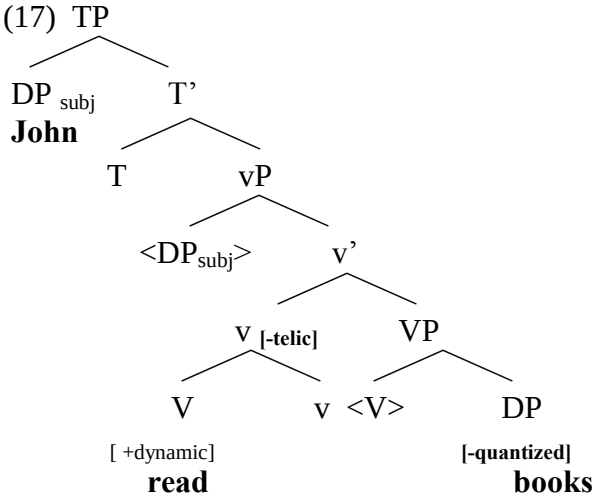
The structure in (16) reflects the proposals by Ritter and Rosen (1998) and Travis (2000, 2010). Ritter and Rosen (1998:143) argue that the expressed event constrains the choice of a verb and not vice versa. In particular, the status of the event as telic or atelic depends on the presence or absence of a delimiting functional projection (FP) (i.e. InnerAspP in (16) in the predicate domain), which assigns the role of a delimiter to the DP argument that moves into its Specifier position. Consequently, telicity is determined compositionally by the lexical verb and a delimiter object argument.

In the same vein, according to Travis (2000, 2010) functional and lexical categories participate in the computation of aspectual classes within the predicate. Travis (2000, 2010) claims that there are certain positions in the syntactic structure that mark telicity. Specifically, there is a functional projection Asp(ect) P(hrase) that is positioned between the functional projection little *v* Phrase (*v*P) and the lexical projection of VP. In addition, there is a lexical category (i.e. the DP Theme complement of a verb) involved in telicity. The movement of the

quantized argument DP *the book* from its original position as a complement of the dynamic V to the Spec position of the functional projection InnerAspP results in marking the predicate as telic.

Next consider the syntactic structure for an atelic predicate represented in (17).

(17)



The structure represented in (17) is characterized by the lack of the delimiting functional projection InnerAspP because the event is atelic, so there is no delimiter. The atelicity of the event is computed from the feature [+dynamic] present on the verb *read* and the feature [-quantized] present on the complement DP *books* that does not act as an event measurer.

In this section, I summarized how telicity is computed in English. Specifically, telicity is compositionally determined and the telicity of a predicate depends on the temporal feature of a verb (i.e. stative vs. dynamic) and the properties of a DP argument (quantized vs. non-quantized). For telic predicates, there is the functional projection InnerAspP, which is located between the two projections of *v*P and VP. The quantized DP object acts as a delimiter to the event and moves to the Spec position of the InnerAspP from its original position as a

complement of the verb. A non-quantized DP object cannot delimit the event and does not move out of the VP for aspectual reasons. As seen from the discussion above, the status of DP arguments as quantized or non-quantized is important for computing telicity in English.

2.2.3 The compositionality of telicity: An example from Russian

In contrast to English, the status of a DP argument as quantized or non-quantized is irrelevant to the telicity of a predicate in Russian. What matters for telicity is the presence of a perfective prefix that functions as a telicity marker. Consider example (18) adapted from Slabakova (2005:65-66, example (4)):

(18) a. Maša jela tort-Ø (atelic)
Masha ate.IMPF cake-ACC
'Masha was eating cake.'

b. Maša s-jela tort-Ø (telic)
Masha PF-ate cake-ACC
'Masha ate the cake.'

c. Maša jela kusoček-Ø tort-a. (atelic)
Masha ate.IMPF piece-ACC cake-GEN
'Masha was eating a piece of cake/Masha used to eat a piece of cake.'[19]

d. Maša s-jela kusoček-Ø tort-a (telic)
Masha PF-ate piece-ACC cake-GEN
'Masha ate the/a piece of cake.'

[19] A comment should be made here on how the atelic example in (18c) is translated into English. This comment is necessary in order to account for the discrepancy in the translation of (18c) and throughout the dissertation, where Russian atelic predicates have telic interpretations in the English translation. Recall that (i) Russian lacks (in)definite articles, and (ii) telicity in Russian is generally realized on the perfective prefix of a dynamic verb. The lack of the prefix *s-*, as in (18c), signals atelicity of the predicate despite the presence of the indefinite count noun *kusoček* 'piece'. Therefore, a better English translation for (18c) should be 'Masha was engaged in the activity of eating a piece of cake.' Throughout this dissertation, I follow the traditional translation used in the literature (e.g., Slabakova 2005:65-55) where atelic Russian predicates are translated into English as telic predicates. However, in cases of such discrepancy in the dissertation, the English translation should have the atelic interpretation and should read as 'someone is/ was engaged in the activity of doing something.'

In (18a), the unprefixed imperfective verb *jest'* 'eat.IMPF' is combined with the non-quantized DP object *tort* 'cake', and in (18c), it is combined with the quantized DP object *kusoček torta* 'piece of cake'. Both predicates in (18a) and (18c) are interpreted as atelic. The prefixed perfective verb *s-jela'* 'PF-ate' is combined with the non-quantized object *tort* 'cake' in (18b), and in (18d), it is combined with the quantized DP object *kusoček torta* 'piece of cake'. Both predicates are interpreted as telic. This example demonstrates that what changes the status of the event from atelic in (18a, c) to telic (18b, d) in Russian is not the status of the DP object as quantized or non-quantized but rather the addition of the perfective prefix *s-* to the imperfective stem of the verb *jest'* 'eat.IMPF'. According to Richardson (2007:96), the majority of perfective prefixes in Russian (e.g., the prefix *s-* in the example (18b, d) presented above) function as telicity markers and change the lexical aspect of the predicate from atelic, as in (18a, c) to telic, as in (18b, d). However, there are some exceptions to be discussed in the next section.

The data presented in the examples in (18a-d) illustrate how telicity is computed in Russian. Similar to English, in Russian, telicity is compositional since the telicity of a predicate depends on the temporal properties of a verb (i.e. stative vs. dynamic) and the presence or absence of a perfective prefix that frequently functions as a telicity marker. However, unlike in English, telicity does not depend on the DP.

2.2.4 The relationship between telicity and perfectivity in Russian

This section addresses the relationship between telicity and perfectivity in Russian. The section starts with a description of the two tests for telicity that are used in this dissertation to differentiate atelic predicates from telic ones (see subsection 2.2.4.1) and continues with a more

in-depth discussion of Russian prefixes/ affixation and aspectual properties (see subsections 2.2.4.2 and 2.2.4.3).

2.2.4.1 Tests for telicity

The following tests are used in this dissertation to differentiate atelic from telic predicates: (i) the adverbial modification test 'in X time' and 'for X time'; (ii) the progressive test.

According to Dowty (1979:336), *in* and *for* adverbial phrases are a diagnostic for distinguishing atelic events (e.g., activities) from telic events (e.g., accomplishments and achievements). This is illustrated by the examples in (19) for English.

(19) a. Mary ate the cake in an hour.

b. Mary was eating cake for 15 minutes.

In (19a), the dynamic verb *eat* takes the quantized DP argument *the cake* as its argument yielding a telic interpretation of the predicate. The example in (19a) shows that the telic predicate is grammatical with the adverbial phrase 'in an hour'. In (19b), the dynamic verb *eat* takes the non-quantized DP argument *cake* as its argument yielding an atelic interpretation of the predicate. The example in (19b) shows that the atelic predicate is grammatical with the adverbial phrase 'for 15 minutes'.

Next consider the examples in (20) for Russian.

(20) a. Maša jela kusoček-Ø tort-a 15 minut
Masha ate.IMPF piece-ACC cake-GEN 15 minutes
'Masha was eating a piece of cake for 15 minutes.'

b. Maša s-jela kusoček-Ø tort-a za 15 minut
Masha PF-ate piece-ACC cake-GEN in 15 minutes
'Masha ate the piece of cake in 15 minutes.'

The grammaticality of the sentence in (20a) with the adverbial phrase *15 minut* 'for 15 minutes' shows that the predicate is atelic. The grammaticality of the sentence in (20b) with the adverbial phrase *za 15 minut* 'in 15 minutes' shows that the predicate is telic.

In addition to the adverbial modification test, there are other tests that differentiate atelic events form telic ones, such as the progressive test. According to this test, telic and atelic events give rise to different logical interpretations. For example, following Kenny (1963), Dowty (1976:57) states that the difference between activities, which are atelic, and accomplishments, which are telic, is that they have different entailments from progressive to non-progressive tenses. The progressive test is also used by Borik (2006) and Richardson (2007) to decide whether the imperfective verb yields telic or atelic interpretations. The examples in (21) and (22) below demonstrate how the progressive test is used in English and in Russian. First, consider the English data in (21):

(21) a. Mary was driving a car → Mary drove a car[20]

b. Mary was running a mile ↛ Mary ran a mile (Borik 2006:24)

[20] The symbol '→' indicates that the truth of the first sentence entails the truth of the second sentence, whereas the symbol '↛' indicates that the truth of the first sentence does not entail the truth of the second sentence.

In (21a), the event of Mary driving a car in the past progressive entails that Mary drove the car at any moment in the past. In (21b), the event of Mary running a mile in the past progressive does not entail that Mary actually completed running a mile at any moment in the past. This example shows that atelic predicates, as in (21a), and telic predicates, as in (21b) give rise to different logical entailments.

Now consider the Russian data in (22):

(22) a. Kogda načalas' Perestrojka, Yurij rukovodil
when started Perestrojka Yurij managed.IMPF

otdel-om perevodčikov. →
department-INSTR translators
'When Perestrojka started, Yurij was managing the department of translators.'

b. Yurij uže po-rukovodil otdel-om perevodčikov.
Yurij already PF-managed department-INSTR translators
'Yurij has already managed the department of translators.'

The example in (22) pairs with the English example in (21a). In (22a), the event of managing the department by Yuri implies that he had already managed the department when Perestroyka started. Thus, based on the result of this test, the predicate *po-rukovodit' otdel-om* 'manage.IMPF the department-INSTR' is atelic.

Now consider the data in (23):

(23) a. Kogda mama prišla s raboty, deti myli posud-u ↛
when mom came from work children washed.IMPF dishes-ACC
'When mom came from work, the children were washing dishes.'

b. Deti uže vy-myli posud-u.
chidren already PF-washed dishes-ACC
'The children have already washed the dishes.'

The example in (23) pairs with the English example in (21 b). In (23a) the event of children doing the dishes at the moment when their mom came home does not entail that they had finished doing the dishes by the time their mom came home. Thus, based on the result of this test, the predicate *vy-myt' posud-u* 'PF-wash the dishes-ACC' is telic.

The importance of the progressive test will become clear when I discuss the Logical Entailment (LE) task, one of the experimental tasks used in the study, in chapter 4.

2.2.4.2 Perfectivity is not always telicity in Russian

In this section, I use the adverbial modification test and the progressive test to show that in Russian, perfectivity does not always equal telicity, as also shown in section 2.2.1. I start the discussion of the relationship between telicity and perfectivity with the data in (24) that shows a general tendency of Russian perfective verbs to be telic and Russian imperfective verbs to be atelic.

(24) a. Maša jela kusoček-Ø tort-a 15 minut/ *za 15 minut
Masha ate.IMPF piece-ACC cake-GEN 15 minutes/in 15 minutes
'Masha was eating a piece of cake for 15 minutes/ *in 15 minutes.'

b. Maša s-jela kusoček-Ø tort-a za 15 minut/ *15 minut
Masha PF-ate piece-ACC cake-GEN in 15 minutes/15 minutes
'Masha ate the piece of cake in 15 minutes /*for 15 minutes.'

In (24a), the verb *jest'* 'eat.IMPF' is imperfective and in (24b) the verb *s-jest'* 'PF-eat' is perfective. The adverbial modification test 'in X time/ for X time' shows that in (24a) the

predicate is atelic and in (24b) the predicate is telic. Thus, the data in (24) show that the imperfective verb yields an atelic interpretation of the predicate, whereas the perfective verb yields a telic interpretation of the predicate.

Now consider a widely cited example in (25a) where the imperfective verb *čitat'* 'read.IMPF' yields a telic interpretation, and (25b), where the perfective verb *po-čitat'* 'PF-read' yields an atelic interpretation.

(25) a. Vy čitali 'Vojn-u i mir-Ø
you read.IMPF war-ACC and peace-ACC
'Have you read War and Peace?' (Richardson 2007:18)

b. Petja po-čital knig-u polčasa/ *za polčasa
Petja PF-read book-ACC half.hour/ in half.hour
'Petja was reading a book for half an hour/ *in half an hour.' (Borik 2006:77)

In (25a), the verb *'čitat'* 'read.IMPF' is imperfective; however, it is understood in this example that the speaker is asking about whether the event of reading the novel 'War and Peace' has reached its endpoint after which it cannot continue. Therefore, in this example, the imperfective verb *'čitat'* 'read.IMPF' gives rise to a telic interpretation of the predicate. In (25b) the verb *po-čitat'* 'PF-read' is perfective; however, the sentence is grammatical with the adverbial phrase *polčasa* 'for half an hour'. The grammaticality of the sentence in (25b) with the adverbial modification 'for X time' means that the predicate in (25b) is atelic.

To summarize this section, many Russian perfective verbs are indeed telic and many Russian imperfective verbs are indeed atelic, as illustrated by the examples in (24) above. However, there are cases in Russian where imperfective verbs yield a telic interpretation, as in (25a) above, and perfective verbs yield an atelic interpretation, as in (25b) above. The analysis of

the data presented in this section shows that perfectivity does not always equal telicity in Russian.

2.2.4.3 Types of Russian verbal prefixes and their properties[21]

This subsection further explores the relationship between perfectivity and telicity as mediated by verbal prefixes in Russian. Consider the examples in (26a-c). In these examples, the perfective prefixes *na-* and *pod-* function as telicity markers, a fact, which according to Slabakova (2005:66), reflects a general tendency of Russian perfective prefixes.

(26) a. Ivan pisal pis'm-o svo-ej mam-e celoje utro
Ivan wrote.IMPF letter-ACC his-DAT mom-DAT whole morning
'Ivan was writing a letter to his mom all morning.'

b. Ivan na-pisal pis'm-o za čas
Ivan PF-wrote letter-ACC in hour
'Ivan wrote a letter in an hour.'

c. Ivan pod-pisal pis'm-o za secundu
Ivan PF-wrote letter-ACC in second
'Ivan signed a letter in a second.'

In example (26a), the verb *pisat'* 'write.IMPF' is in its past imperfective form *pisal* 'wrote.IMPF'. The predicate is atelic, as shown by the grammaticality of the sentence with the adverbial phrase 'for X time'. In (26b), the prefix *na-* is added to the past imperfective base form of the verb *pisal* 'wrote.IMPF'. The prefix *na-* does not change the meaning of the verb it attaches to; however, it changes its grammatical aspect from imperfective to perfective (i.e. in

[21] The study of Russian prefixes, however interesting, is outside the scope of this dissertation. A comprehensive analysis of Russian prefixes is presented in Svenonius (2004), Ramchand (2004), Richardson (2007), Romanova (2004), and Tatevosov (2007). For the purpose of this dissertation, only those properties of the prefixes that are relevant for this dissertation are reviewed in this section.

which the event is viewed as a completed whole), as illustrated by (26b). The grammaticality of the sentence in (26b) with the adverbial phrase 'in X time' also shows that the predicate is telic (i.e. it has an end point). In this case, *na-* can be referred to as a perfective prefix that functions as a telicity marker. In (26c), when the lexical prefix *pod-* is added to the past imperfective form of the verb *pisal* 'wrote.IMPF', it changes the meaning of the verb from *pisal* 'wrote', as in (26a), to *pod-pisal* 'signed', as in (26c). In this case, as discussed in section 2.2.1, the prefix *pod-* can be referred to as a lexical prefix, as it changes the meaning of the base form of the verb it attaches to. In addition to changing the lexical meaning, the lexical prefix *pod-* also acts as a telicity marker since the sentence in (26c) is grammatical with the adverbial phrase 'in X time'. The examples in (26b, c) show that the perfective prefixes *na-* and *pod-* both function as telicity markers, which reflects a general tendency of perfective prefixes in Russian. However, there are prefixes in Russian, as discussed in section 2.2.1, that only function as perfectivity but not telicity markers, as illustrated in (27a, b).

(27) a. Ivan pisal pis'm-o svo-ej mam-e celoje utro
Ivan wrote.IMPF letter-ACC his-DAT mom-DAT whole morning
'Ivan was writing a letter to his mom all morning.'

b. Ivan po-pisal pis'm-o pjat' minut da zatem brosil
Ivan PF-wrote letter-ACC five minutes and then stopped
'Ivan was writing a letter for five minutes and then quit.'

In (27b), the imperfective past form *pisal* 'wrote.IMPF', as in (27a), merges with the perfective prefix *po-*. The prefix *po-* changes the grammatical aspect of the verb *pisal* 'wrote.IMPF' from imperfective to perfective, as in (27b). However, in contrast to the prefixes *na-* in (26b) and *pod-* in (26c), the prefix *po-* in (27b) does not function as a telicity marker since

the event of writing a letter has not been finished. The grammaticality of the sentence with the adverbial phrase 'for X time' shows that the predicate is atelic. Prefixes similar to the prefix *po-* that change perfectivity but not telicity of a predicate are called superlexical prefixes, as per Table 2 in section 2.2.1. This is because they affect grammatical but not lexical aspect.

The difference between telic and lexical prefixes, on the one hand, and superlexical prefixes, on the other, lies in the fact that telic and lexical prefixes act as telicity markers, so they affect lexical/ inner aspect, whereas superlexical prefixes do not.

Another difference between lexical and telic prefixes versus superlexical prefixes lies in their (im)possibility to form secondary imperfectives (SIs). A general tendency in Russian is that perfective verbs prefixed by lexical and telic prefixes can form SIs, whereas perfective verbs prefixed by superlexical prefixes cannot. A SI is formed by adding the suffix *-a, -va,* or *va-/-yva* to a perfective verbal stem, as seen in the example (28) below. According to Forsyth (1970:18-20), Ramchand (2004), Borik (2006:8-10), and Richardson (2007:54-55), the (im)possibility of the perfective verb to form a SI is used as a diagnostic to differentiate lexical and telic prefixes from superlexical ones. Forsyth (1970:18-20) states that a SI can be formed from verbs prefixed with lexical prefixes because a new lexical meaning of the verb derived by the addition of a lexical prefix gives rise to a new aspectual pair. To illustrate, consider example (28):

(28)	igra-t'	vy-igra-t'	vy-igr-yva-t'
	play.IMPF-INF	PF-play-INF	PF-play-SI-INF
	'play'	'win'	'be winning'

In (28), the imperfective verb *igrat'* 'play.IMPF' merges with the lexical prefix *vy-*, which gives rise to the perfective verb *vy-igrat'* 'win'. As a result of the merger of the lexical prefix *vy-* with the imperfective stem *igrat'* 'play.IMPF', the verb *vy-igrat'* 'win' is formed and it has a lexical meaning different from the verb *igrat'* 'play.IMPF'. The perfective verb *vy-igrat'* 'win' merges with the suffix *-yva-* and forms the SI form *vy-igr-yvat'* 'PF-play-SI' 'be winning'. The example presented in (28) shows that the verb *vy-igrat'* 'win', which is prefixed by the lexical prefix *vy-* can form a SI.

Consider next the data in (29):

(29)	iska-t'	po-iska-t'	* po-isk-iva-t'[22]
	look.for.IMPF-INF	PF-look.for-INF	PF-look.for-SI-INF

The ungrammaticality of the SI form **po-isk-iva-t'* 'PF-look.for-SI-INF' presented in (29) shows that a SI cannot be formed from the perfective verb *po-iskat'* 'PF-look.for'. In (29), the verb *po-iskat'* 'PF-look.for' is prefixed by the superlexical prefix *po-* that does not change the lexical meaning of the verb *iskat'* 'look.for.IMPF' but rather specifies the duration of the event. The meaning of the prefix *po-* is equivalent to the meaning of the adverbial phrase 'for a while'. So, we notice that when the prefix *po-* does not change the lexical meaning of the verb it attaches to and does not create a new lexical item, a SI cannot be formed.

The summary of the properties of Russian verbal prefixes discussed in this subsection is presented in Table 3:

[22] The search of the Russian National Corpus (2014) has shown zero results for this SI.

Table 3: Properties of Russian verbal prefixes

Properties	Types of Prefixes		
	Telic	Lexical	Superlexical
The property of changing grammatical aspect from imperfective to perfective	YES	YES	YES
The property of changing lexical aspect from atelic to telic	YES	YES	NO
The property of changing the lexical meaning of verbs they merge with	NO	YES	NO
The property of forming a SI	YES	YES	NO[23]

To summarize, the following conclusions should be taken from the discussion on aspect presented in section 2. First, there are two types of aspect (i.e. lexical and grammatical). Second, cross-linguistically, lexical aspect is compositional in nature; specifically, in English, the status of a predicate as telic or atelic depends on the temporal properties of a verb (i.e. stative versus dynamic) and the status of the complement DP as quantized and non-quantized, while in

[23] This property reflects a general tendency since there are verbs prefixed by superlexical prefixes that can form a SI, as illustrated in (i).

(i) gulja-t' po-gulja-t' po-gul-iva-t'
walk.IMPF-INF PF-walk-INF PF-walk-SI-INF

The search of the Russian National Corpus (2014) has shown that this SI is used in 20 documents and 21 different contexts.

Russian, (a)telicity is linked to verbal prefixation. Quantized DP arguments in English act as event measurers of telic predicates. In Russian, telic and lexical prefixes measure out the event, while DPs do not. The adverbial 'for X time' versus 'in X time' modification test and the progressive entailment test were used to differentiate telic predicates from atelic ones. Third, despite a general tendency of Russian perfective prefixes to function as telicity markers, it was shown that only lexical and telic prefixes function as telicity markers, whereas superlexical prefixes do not. Fourth, one of the properties of lexical and telic prefixes versus superlexical prefixes is that generally, the verbs prefixed by telic and lexical prefixes can form a SI, whereas the verbs prefixed by superlexical prefixes cannot. These conclusions are taken into consideration while developing the experimental tasks used in this study and presented in chapter 4.

2.3 Case

This section provides an overview of case. Specifically, it discusses (i) the concept of abstract case in the Government and Binding (GB) approach, (ii) the difference between structural and non-structural case, (iii) the concept of morphological case, (iv) how case is understood in Minimalism with a focus on Russian and English, (vi) the link between lexical aspect and case which is proposed for some languages, such as Finnish, German, English, and Russian.

2.3.1 Abstract case in generative grammar[24]

According to Bobaljik and Wurmbrand (2009:44-58) and Polinsky and Preminger (2014:1-35), abstract case was first proposed in the generative theory within the GB framework (Chomsky 1980, 1981) to account for the distribution of (non)-overt DPs in (non)-finite clauses. Polinsky and Preminger (2014:8) define abstract case as "a primitive feature that reflects a relationship between an argument and its syntactic context; in other words, the assignment of abstract case is determined by a syntactic structure." The important concept in the theory of abstract case is the Case Filter that was originally proposed by Vergnaud (1977/ 2008:4), according to which "only [DP]s that are phonologically realised are marked for case" and that case marking does not apply to phonologically empty DPs (e.g., the empty pronominal category in non-finite clauses known as PRO). The Case Filter was further developed by Chomsky (1980) who stated that lexical [DPs] (i.e., those with a lexical head) must have Case.

Originally, Chomsky (1980), following Vergnaud (1977/ 2008) formulates the Case Filter as a phonological (PF) requirement. This means that the Case Filter applies to phonetically realized DPs. In Chomsky (1981), the Case Filter is reformulated as an LF requirement, based on Aoun's (1979) Visibility Condition, which states that in order for a DP to be assigned a theta-role at LF, the DP must be visible through case-marking. Therefore, a DP argument must have case, and any DP that lacks case would end up without a theta role at LF, causing the derivation to crash (i.e. ungrammaticality).

The application of the Case Filter to the analysis of the distribution of the (non)overt DPs in (non)finite clauses is illustrated by the following examples:

[24] In the literature on case, the convention is to capitalize the letter 'C' for abstract Case and to use the lower case letter 'c' for morphological case. Throughout this dissertation, I write the word 'case' with the lower case 'c' and I use the following labels to discuss case: abstract case, structural case, morphological case, lexical case. The upper case will be used for the name of a specific case (e.g., Nominative case, Accusative case, etc.).

(30) a. [$_{DP}$ Myk]/ [$_{DP}$ He] promoted [$_{DP}$ Katie]/ [$_{DP}$ her].[25]

b. [$_{DP}$ Katie $_{i}$]/ [$_{DP}$ She] was promoted $t_{i.}$

The finite clause in (30a) has two lexical DPs. According to the classification of abstract case proposed by Vergnaud (1977/ 2008:3) and later developed by Chomsky (1980), the lexical DP *Myk/ he*, as a subject of a finite clause receives Nominative case, whereas the lexical DP *Katie/ her*, as an object of the finite clause that is governed by the lexical verb *promoted* receives Objective or Accusative case (i.e. the case which is governed/ assigned by verbs and prepositions). In the passive construction given in (30b), the lexical DP *Katie/ she* moves from its original position as a complement of the verb *promoted* to the position where it can be assigned Nominative case as a subject of the finite clause.

Now consider the distribution of the non-overt and overt DPs in non-finite clauses in (31):

(31) a. Katie/ She wants [$_{CP}$ PRO to get a promotion].

b. Katie/ She wants [$_{CP}$ Max/ him to get a promotion].

c. [$_{CP}$ *(For) Max/ him to get a promotion] would be great.

The subject of the non-finite clause in (31a) is PRO (i.e. the non-overt DP). According to the Case Filter of Chomsky (1980), only lexical DPs can have case; therefore, PRO is not case-

[25] In Modern English, lexical DPs are not morphologically marked for case. Overt morphological marking for case is, however, retained in the pronominal system (e.g., *I* vs. *me*, *she* vs. *her*, *we* vs. *us*, and *they* vs. *them*), as shown in the examples in (30).

marked. The subject of the non-finite embedded clause in (31b) is the lexical DP *Max/ him*, so it should be case-marked. The proposal is that the DP *Max/ him* is assigned Accusative case from the verb *want* as an instance of Exceptional Case Marking (ECM). (31c) shows that the case is Accusative and the assumption is that the preposition/ complementizer *for* is the case assigner.

The examples presented in this section so far demonstrate how the concept of abstract case and the Case Filter are used to account for the distribution of (non)-overt DPs in finite and (non)-finite clauses. In the next subsections I discuss the two subtypes of abstract case (i.e. structural and non-structural), as well as morphological case.

In the Minimalist framework, abstract case is viewed as an uninterpretable feature. Recall from section 2.1 that uninterpretable features must be checked and valued against a matching interpretable counterpart. Concerning abstract case, a DP enters a derivation with an unchecked and unvalued case feature (Chomsky 2000). If it checks and values this [uCase] feature against the finite head T, the feature obtains the value of Nominative case. On the other hand, if a DP checks and values its [uCase] feature against the functional head known as light/ little *v*, the feature is checked and valued as structural Accusative case.[26] As discussed, earlier accounts of case assignment in generative grammar took the Spec-Head relationship to be a crucial structural requirement. However, current minimalist assumptions allow for checking of [uCase] under c-command without movement (i.e. via the operation Agree). When movement of the DP does proceed to the Specifier of the case checking head, it is assumed that this is done for independent reasons, often having to do with the semantic component (e.g., change in aspectual interpretation), or language specific requirements (i.e. the EPP in English).

[26] This holds for Nominative-Accusative languages. The situation is somewhat different for Ergative-Absolutive languages, though perhaps not in crucial ways (e.g., Legate 2008).

2.3.2 Structural versus non-structural case

According to Chomsky (1981), Pesetsky and Torrego (2009), and Woolford (2006), in generative linguistic theory (i.e. in GB and Minimalism), a difference is made between structural and non-structural case. Following Haspelmath (2009:508), "Structural Case is the case that is assigned in a particular structural configuration". For example, Nominative case is assigned in the Spec-Head structural configuration and Accusative case is assigned in the Head-Complement structural configuration. Later, Chomsky developed Pollock's (1989) split-Infl(ection) hypothesis and created a uniform account for the licensing of structural case.[27] According to Chomsky (1991), structural case (i.e. Nominative and Accusative) is licenced (checked) in the Spec-(functional) Head relation. Nominative case is licensed or checked in the Specifier position of the functional head AgrS and Accusative case on the direct object DP is licensed (or checked) in the Specifier position of the functional head ArgO. Lasnik (2008:26) states that reducing case licensing to one Spec-(functional) Head syntactic configuration was "a large step towards simplicity and symmetry in the system".

In addition to structural case, languages have non-structural case, which is typically divided into lexical and inherent case (Woolford 2006, Richardson 2007, Pesetsky and Torrego 2009). More specifically, non-structural case does not involve a particular structural relationship but focuses on non-structural factors. In particular, lexical case is an idiosyncratic case, which is lexically selected by certain lexical heads, such as verbs and prepositions. For example, Pesetsky and Torrego (2009:9) show that the verbs *luku* 'finished' and *vitjuðum* 'visited' in Icelandic

[27] In order to account for the position of adverbial expressions and the negative element *pas* 'not' in French, Pollock (1989) proposed to split the IP projections into the two functional heads, T(ense) and Agr(eement). Later, Chomsky (1991) refined this proposal by assuming two Agr projections (i.e. AgrS, which is responsible for subject agreement, and AgrO, which is responsible for object agreement).

unpredictably require a Dative case and a Genitive case, respectively, on their object DPs. This is shown in example (32) from Pesetsky and Torrego (2009:9, example (27)).

(32) a. Đeir luku kirkjunni.
they finished the-church.DAT
'They finished the church.'

b. Við vitjuðum Olafs.
we visited Olaf.GEN
'We visited Olaf.'

The other type of non-structural case is inherent case, which is linked to certain theta-roles and which, according to Woolford (2006), is predictable. For example, in some languages (Icelandic, German, Russian, Romanian), Dative Case is linked to the Experiencer theta-role that is assigned by verbs of liking and disliking. In (33) we see an example of an inherent (Dative) case on the argument *îmi* 'I'. The case is checked when the argument receives its Experiencer theta-role from the verb *place* 'like'.

(33) îmi place cartea asta.
I.SG.DAT like.3SG book-the this-NOM
'I like this book.' (Alboiu, p.c.)

In sum, both structural and non-structural cases are instances of abstract case that fall under the Case Filter and that are distinct from the actual morphological manifestation of the DP argument.

2.3.3 Morphological Case

Morphological case refers to the actual form/ inflection that a lexical DP argument takes/ has. Polinsky and Preminger (2014:2) define morphological case as "a category that reflects the relationship between a head and its dependent noun(s), or between different nouns in a clause". In traditional grammar, the observation is made about one-to-one mapping of the morphological case marking of certain DPs and their grammatical functions in a clause. For example, in languages that have overt morphological case marking (e.g., Russian and Modern English in the pronominal system), the grammatical subject function is typically associated with Nominative case morphological marking, and the grammatical object function is typically associated with Accusative case morphological marking. Polinsky and Preminger (2014) state that in generative grammar, morphological case is not determined by the grammatical function of a DP but by its syntactic configuration in a clause. The inadequacy of the definition of morphological case as one-to-one mapping of the morphological form of a DP and its function in a clause is illustrated by the following example:

(34) [$_{CP}$ For him to get a promotion] is unheard of.

In (34), the pronominal DP *him* is a subject of the non-finite clause; however, the pronominal DP *him* is used here in its Accusative form. In this dissertation, I adopt Polinsky and Preminger's (2014) viewpoint; specifically, that morphological case reflects a syntactic relationship in so far as arguments are concerned.

2.3.4 Case in Russian

In this section, I introduce the reader to relevant aspects of case in Russian. Russian is a language with rich morphological case marking and a variety of grammatical word orders, as seen in (35).

(35) a. Maš-a pro-čitala knig-u. SVO
Maša-NOM PF-read book-ACC

b. Knig-u pro-čitala Maš-a OVS
book-ACC PF-read Maša-NOM

c. Pro-čitala Maš-a knig-u VSO
PF-read Maša-NOM book-ACC

d. Pro-čitala knig-u Maš-a VOS
PF-read book-ACC Maša-NOM
'Masha read a/the book.'

In Russian, the arguments (e.g., subjects vs. objects) are differentiated by their inflectional case morphology rather than by their relatively fixed positions in the sentence. Unlike in languages such as English, lexical DPs in Russian are distinguished and morphologically marked with the following six cases: Nominative, Genitive, Dative, Accusative, Instrumental, and Prepositional. In Russian, noun stems belong to four declensions that determine the morphological realization of case marking. The morphological inflections of the six cases in Russian are presented in Table 4 taken from Babyonyshev (1993:8, Table 1).

Table 4: Paradigm of morphological case-marking in Russian

	Declension				Declension			
Case	1 SG	2 SG	3 SG	4 SG	1 PL	2 PL	3 PL	4 PL
NOM	-a	-Ø/o	-Ø	-Ø	y	-y/i/a	-i	-Ø
ACC	-u	-Ø/o/a	-Ø	-Ø	y	-y/ej/a	-i	-Ø
GEN	-y	-a	-i	-Ø	-Ø	ov/ej/-Ø	-ej	-Ø
DAT	-e	-u	-i	-Ø	-am	-am	-am	-Ø
PREP	-e	-e	-i	-Ø	-ax	-ax	-ax	-Ø
INSTR	-oj (-u)	-om	-ju	-Ø	-ami	-ami	-ami	-Ø

Example (36) illustrates the six cases of Russian for the 1st declension (animate and inanimate feminine nouns).

(36) a. Moskv-**a** odin iz drevnejših gorodov Rossii.
Moscow-**NOM** one of oldest cities Russia
'Moscow is one of the oldest cities in Russia.'

b. Mnogije izvestnyje pisateli guljali po ulitsam Moskv-**y**
many famous writers walked along streets Moscow-**GEN**
'Many famous writers walked along the streets of Moscow.'

c. Izvestnyi arhitector podaril Moskv-**e** svoju novuju skulpturu.
famous architect gave.as.a.gift Moscow-**DAT** his new sculpture
'A famous architect gave Moscow his new sculpture as a gift.'

d. Bertrand Russel posetil Moskv-**u** v 1918 godu.
Bertrand Russel visited Moscow-**ACC** in 1918 year
'Bertrand Russell visited Moscow in 1918.'

e. On gorditsja Moskv-**oj**.
he be.proud Moscow-**INSTR**
'He is proud of Moscow.'

f. Izvestnyj mecenat Tretjakov žil v Moskv-**e.**
famous benefactor Tretjakov lived in Moscow-**PREP**
'A famous benefactor, Tretjakov, lived in Moscow.'

Russian, like English, has what is termed a nominative-accusative case system. In this case system, the sole argument of a one-place verb and the agent of a two-place verb have identical case marking.[28] This is seen in (37) for English and in (38) for Russian.

(37) a. He collapsed.

b. He built a house.

c. Max promoted him.

(38) a. Staršk-a u-pala
old.woman-NOM PF-fell.down
'An old woman fell down.'

b. Starusk-a pro-dala molok-o
old.woman.NOM PF-sold milk-ACC
'An old woman sold the milk.'

c. Ivan u-videl starusk-u
Ivan PF-saw old.woman-ACC
'Ivan saw an old woman.'

[28] The nominative-accusative system of morphological case that is observed in Russian and English in the pronominal system is contrasted with an ergative-absolutive system. In an ergative-absolutive system, which is not the focus of this dissertation, the sole argument of the one-place verb and the theme/ patient of the two-place verb have identical case marking and are contrasted with the case marking on the agent of the two-place verb. This is illustrated by the following example from Chukchi taken from Polinsky and Preminger (2014:4, example (4a, b)):

(i) a. keyŋ-e ətlʔəg-ən təm-nen
bear-ERG man-ABS kill-AOR.3SG:3SG
'The bear killed the man.'
b. ətlʔəg-ən ret-gʔe
man-ABS arrive-AOR.3SG
'The man arrived.'

The examples in (37) show that the morphological form of the subject in the intransitive (37a) is identical to the morphological form of the subject in the transitive (37b) (i.e. Nominative case). These forms are different from the morphological form of the object in (37c) (i.e. Accusative case). Similar to the examples in (37) from English, in Russian, the sole argument of a one-place verb *starušk-a* 'old.woman-NOM' in (38a) and the agent of the two place verb *starušk-a* 'old.woman-NOM' in (38b) have identical Nominative case marking. In (38c), the object DP *starušk-u* has a different morphological marking of Accusative case.

Similar to English, Nominative case and Accusative case are structural cases in Russian, that is, a DP checks and values its structural Nominative and Accusative case by virtue of being in a certain structural configuration and not because of a specific theta-role or other idiosyncrasies.

One of the tests that can be used to argue for the status of Accusative case as structural in Russian is the case preservation test under A(rgument)-movement (e.g., passivization). According to Woolford (2006:7), "if the [c]ase of the argument is preserved under A-movement, that argument has nonstructural [c]ase". The data in (39) demonstrate that when the object DP *knig-u* 'book-ACC' is passivized, it does not preserve its case, rather it changes from Accusative to Nominative, as it would in English; therefore, Accusative case is a structural case in Russian.

(39) a. Ivan pro-čital knig-u.
Ivan-NOM PF-read book-ACC
'Ivan read the book.'

b. Kniga bula pro-čitana Ivan-om.
book-NOM was PF-read Ivan-INSTR
'The book was read by Ivan.'

Now consider the examples in (40).

(40) a. Ofičer prikazal soldat-am stojat' smirno
Officer ordered.PF soldiers-DAT stand attention
'The officer ordered the soldiers to stand at attention.'

b. Soldat-am bylo prikazano stojat' smirno
Soldiers-DAT were ordered.PF stand attention
'The soldiers were ordered to stand at attention.'

In (40a), the argument DP *soldat-am* 'soldiers-DAT' is assigned Dative case. When this argument is passivized, it retains its Dative case, as in (40b). This shows that Dative case is non-structural case, since it is preserved under A-movement.

Russian also has an Experiencer construction similar to Icelandic, German, and Romanian (see example (41) below taken from Richardson (2007:39, example (69)), where Dative case on one of the arguments of the verb *nravitsja* 'like' is linked to the Experiencer theta-role.

(41) Mne nravitsja eta knig-a.
I.DAT like this book-NOM
'I like this book.' (lit. 'This book is pleasing/ agreeable to me.')

Instrumental case in Russian is linked to the theta-role Instrument, as illustrated in (42).

(42) a. Ivan rezal xleb-ø nož-om
Ivan cut.IMPF bread-ACC knife-INSTR
'Ivan was cutting the bread with a knife.'

b. Ira otkryla dver'-ø kljoč-om
Ira opened.PF door-ACC key-INSTR
'Ira opened the door with the key.'

According to Richardson (2007:27), verbs of 'governing', 'ruling' or 'managing' take a DP argument which is equally marked with Instrumental, as seen in (43).

(43) Ivan komandoval polk-om
Ivan commanded.IMPF division-INSTR
'Ivan was in command of a division.'

Richardson (2007:26) states that there are also instances of lexical case in Russian, which are idiosyncratic and unpredictable in that they are not linked to specific thematic roles. For example, the two verbs *podražat'* and *imitirovat'* mean 'to imitate.IMPF' in Russian. However, *podražat'* takes an argument that is marked with Dative case, as in (44a), whereas *imitirovat'* takes an argument that is marked with Accusative Case, as in (44b).

(44) a. Ivan podražal' akjor-u.
Ivan imitated.IMPF actor-DAT

b. Ivan imitiroval akjor-a
Ivan imitated.IMPF actor-ACC
'Ivan imitated the actor.'

In conclusion, what is important to understand from this discussion of case in English and Russian is that there are both some differences and some similarities between the case systems of Russian and English. The most obvious difference is that morphological marking of case is rich in Russian. In contrast, in English, the morphological realization of case is zero, except for pronouns. However, despite the differences, both Russian and English have structural case (Nominative and Accusative). The case system of Russian has non-structural cases, which are

either idiosyncratic (i.e. selected by certain verbs, as in example (44) above), or inherent (i.e. linked to certain theta-roles, as in the examples (41)-(43) above).

2.4 The link between aspect and case

This section discusses the proposal made for Finnish (Kiparsky 1998), English and German (Kratzer 2004) and Russian (Pereltsvaig 2000, Szucsich 2001, 2002, and Richardson 2007) that establishes a link between structural Accusative case and telicity. For example, Kiparsky (1998) observed that in Finnish there is an alternation between Accusative and Partitive case on DP arguments that are sensitive to inner aspectual interpretations, as illustrated in example (45) taken from Kiparsky (1998:267).

(45) a. Ammu-i-n karhu-a/ kah-ta karhu-a/ karhu-j-a
shoot-PAST-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-PAST-1SG bear-ACC two-ACC bear-PART bear-PL.ACC
'I shot the (a) bear /two bears /the bears.'

The data in (45) show that when the predicate is atelic (i.e. unbounded), the DP object has Partitive case as in (45a), and when the predicate is telic (i.e. bounded), the DP object has Accusative case, as in (45b). For Kiparsky (1998), Accusative case is aspectually relevant since it is linked to the telicity of the predicate. A similar relationship between case and aspect has also been found in other Indo-European languages, such as English, German and Russian. The next section expands on this.

2.4.1 The link between structural case and telicity in English and German: Kratzer (2004)

To explain the link between structural case and telicity, Kratzer (2004) refers to the concept of interpretable and uninterpretable features used in Minimalism. In particular, Kratzer states that verbal inflectional features are the interpretable counterparts of uninterpretable case features. Since telicity is constructed syntactically, similar to the proposal by Ritter and Rosen (1998) discussed in section 2.2.2, Kratzer (2004) states that the feature [telic] is present on the verbal inflectional head located above the VP. To support her claim that telicity is constructed syntactically, Kratzer divides verbal stems into: (i) inherently atelic (e.g., states), (ii) inherently telic (e.g., achievements) and (iii) verbal stems that start as atelic (e.g., activities). However, atelic activities can become telic (i.e. accomplishments) when combined with the interpretable aspectual feature [telic] present on the verbal inflectional Head and the DP object that measures out the event expressed by the verb. This explains the grammaticality of some accomplishments with both the 'for X time' and 'in X time' adverbial modification tests, as shown in (46) taken from Kratzer (2004:396, example (9)).

(46) a. The doctor examined the patient in/ for an hour.

b. We cooked the egg in/ for five minutes.

c. We milked the cow in/ for ten minutes.

d. She cleaned the house in/ for two hours.

Kratzer (2004) explains the grammaticality of the data in (46) as follows. She claims that accomplishments carry a culmination condition but not a culmination requirement. The requirement to culminate is added by the feature [telic] on the verbal aspectual head. In Kratzer's

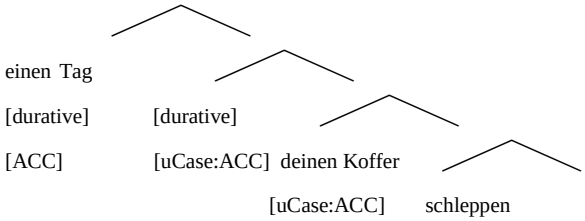
words (2004:391), the "only job [of this feature] is to require that the events described by the verb culminate with respect to the referent of the direct object argument." Using the Minimalist account of feature checking proposed by Chomsky (1995, 2001), Kratzer states that the uninterpretable feature [uCase: ACC] on the object DP enters into an agreement relationship with the interpretable aspectual feature [telic]. In order to enter the agreement relationship with the interpretable feature [telic], the DP should be displaced (i.e. it should move outside of the VP). The displacement is caused by the EPP feature (D-feature) present on the verbal inflectional head that hosts the feature [telic]. The object DP moves into the Spec position of the aspectual head where the uninterpretable feature [uCase: ACC] is checked against the matching interpretable feature [telic].

To show that the link between case and telicity exists in German, Kratzer (2004:409) provides the following nominalization example: *das langsame Weiterbesteigen des Berges* 'the slow on-climbing of the mountain'. This example shows that the direct object DP *des Berges* 'the mountain' has Genitive case. The absence of structural Accusative case on the object DP indicates the absence of the functional head that can licence it.

According to Kratzer, irrespective of the telicity of the predicate, Accusative is the only objective case available in German. In the absence of the inflectional verbal head with the feature [telic] that imposes the requirement to culminate, the uninterpretable feature [uCase:ACC] on the DP object is checked via agreement with the uninterpretable feature [uCase:ACC] on the durative head (overt or covert), which in its turn is checked against the interpretable feature [ACC] of the durative phrase. This is shown in (47) taken from Kratzer (2004:412, example (39)).

(47) a. Ich musste ein-en Tag (lang) dein-en Koffer schleppen
I had.to one-ACC day (long) your-ACC suitcase schlep
'I had to schlep your suitcase for one day.'

b. DurativeP

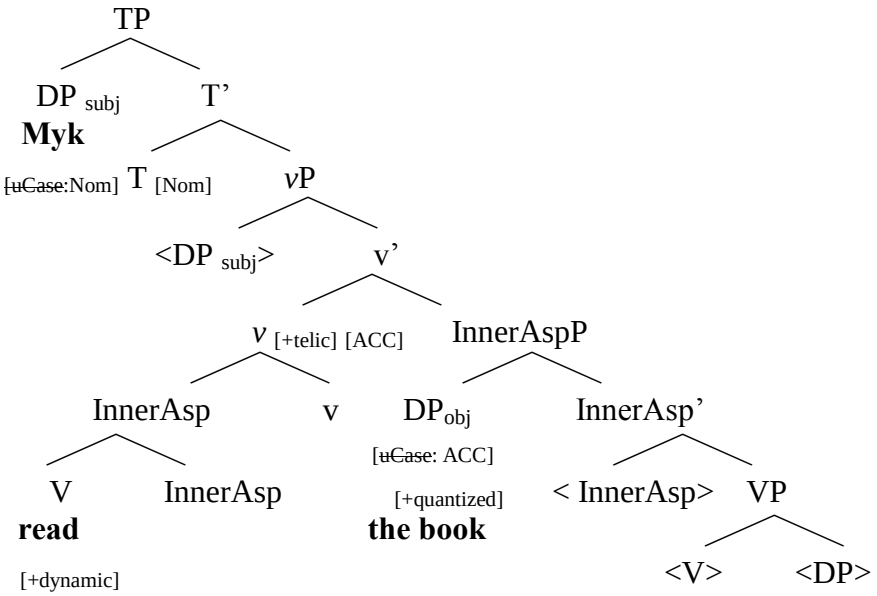


Kratzer (2004) concludes that the link that exists between structural Accusative case and telicity in Finnish can also be postulated for English and German.

In what follows, I present the two syntactic structures for a telic and atelic predicate. As already mentioned, English is a language with zero case morphology on its non-pronominal DP arguments. DPs in English have purely abstract Nominative and Accusative cases, and since these values depend on the Head against which the feature [uCase] checks (i.e. T or *v*, respectively), case in English is structural. To illustrate the mechanism for Nominative and Accusative case checking, consider the structure in (49) for the telic predicate in (48).

(48) Myk read the book.

(49)



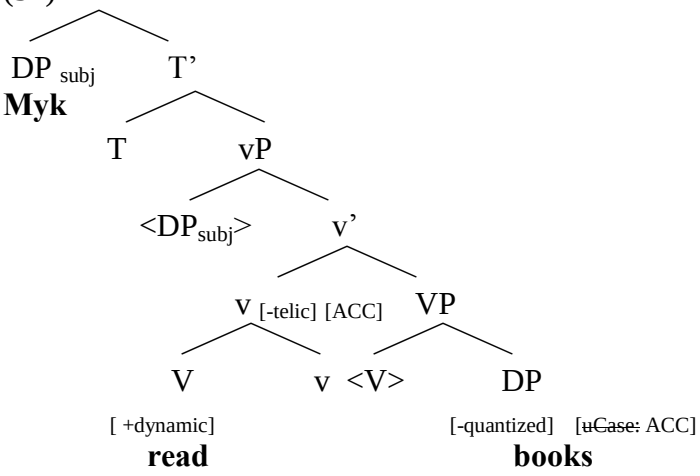
In this structure, the DP *Myk* moves to Spec TP, where it checks and values Nominative Case. According to Burzio's Generalization (1986:178), if the verb assigns an Agentive theta role to its external argument, it also licenses Accusative Case, hence the feature [ACC] present on *v*.[29] In the structure in (49), the feature [+quantized] is present on the definite countable DP argument *the book* that merges with the dynamic (i.e. non-stative) verb *read*. As a result of the combination of the two features [+quantized] on the DP argument and [+dynamic] on the verb, the predicate acquires the feature [+telic] present on little *v*. In this structure for English, the direct quantized object DP acts as a situation delimiter. It moves to the Specifier position of InnnerAspP and its uninterpretable case feature is checked and valued against the feature [ACC] present on little *v*.

To illustrate the mechanism for Nominative and Accusative case checking for the atelic predicate in (50), consider the structure in (51).

[29] This mechanism for the checking and valuing of the feature [uCase] for Russian is reconsidered in section 2.5 following the proposals by Pesetsky and Torrego (2004) and Richardson (2007).

(50) Myk read books (for hours).

(51) TP



In this structure, the DP 'books' has the feature [-quantized]; there is no functional projection InnerAspP and the object DP does not act as an event measurer. The case feature checking and valuing takes place in situ under c-command via the operation "Agree". Since English has only structural case, the object DP receives structural Accusative case.

2.4.2 The link between case and aspect in Russian

The link between structural case and aspect has also been established for Russian. For example, Pereltsvaig (2000) and Szucsich (2001, 2002) claim that in Russian, nominal adverbials (i.e. duratives, frequency adverbials, multiplicatives and temporal positional adverbials) are aspectually sensitive. Consider the data in (52) taken from Szucsich (2002:5, examples (7, 8)):

(52) Ivan el / *s-el sup odin čas-ø
Ivan ate.IMPF / *PF-ate soup one hour-ACC
'Ivan was eating/ *ate the soup for one hour.'

In (52), the durative adverbial *odin čas* 'one hour' is grammatical with the atelic imperfective predicate (i.e. the unbounded predicate using Szucsich's terminology) and ungrammatical with the telic perfective predicate (i.e. the bounded predicate using Szucsich's terminology). The data in (52) show that the durative adverbial is sensitive to the aspectual properties of the predicate and is case-marked with Accusative case.

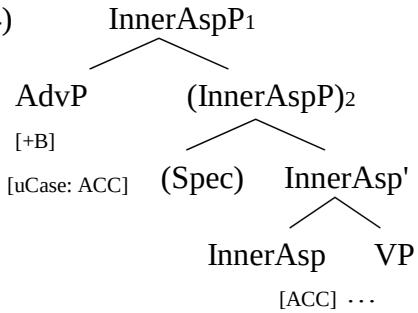
Now consider the data in (53) taken from Szucsich (2002:5, examples (9a, b)):

(53) a. Tri raz-a udarili v kolokol i zanaves podnjalsja
three times-ACC struck.PF in bell and curtain rose
'Three times they rang the bell, and the curtain rose.'

b. Tri raz-a rugalsja.
three times-ACC swore.IMPF
'I have sworn (cursed) three times.'

The data in (53a, b) show that the multiplicative *tri raza* 'three times' can modify both telic (i.e. bounded), as in (53a), and atelic (unbounded) events, as in (53b). In (53), the adverbial is marked with Accusative case. Szucsich (2001, 2002) claims that what unites nominal adverbials in (52) and (53) is their semantic function, which is to delimit/ quantize or localize events denoted by the verbal predicate. According to Szucsich (2001:110), nominal Accusative adverbials are bounded terms that have the feature [+B], as these show a specific/ quantized amount of time. Since nominal adverbials are aspectually relevant, the same functional projection (i.e. InnerAspP), which is responsible for assigning structural Accusative case to direct objects in Russian, is responsible for assigning structural Accusative case to nominal adverbials, as shown in the syntactic structure (54) adapted from Szucsich (2002:7, example (12)).

(54)



The structure in (54) shows that a local syntactic relation is established between AdvP and InnerAsp with the feature [ACC]. Szucsich (2002) argues that this relationship is not a checking relationship because the feature [+B] has a positive value and the aspectual feature on InnerAsp can have a negative value. This is due to the fact that some nominal adverbials can occur only with atelic (i.e. unbounded) events. Therefore, Szucsich (2001, 2002) proposes that uninterpretable morphological case features are licensed rather than checked via agreement in a local relationship with the functional projection InnerAspP.

In Russian, Instrumental case is present on temporal and locational adverbials, as in (55) as well as on non-temporal adverbials, as in (56) taken from Szucsich (2002:11, example (21a, b)).

(55) a. Ivan zanimalsja čas-ami.
Ivan studied.IMPF hours-INSTR
'Ivan studied for hours.'

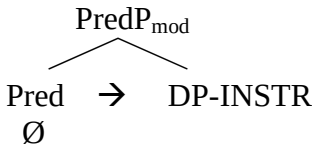
b. Ivan šol les-om
Ivan walked.IMPF forest-INSTR
'Ivan walked through the forest.'

(56) a. On rezal xleb nož-om.
he cut.IMPF bread knife-INST
'He cut the bread with a knife.'

b. On vyl volk-om.
he howled.IMPF wolf-INST
'He howled like a wolf.'

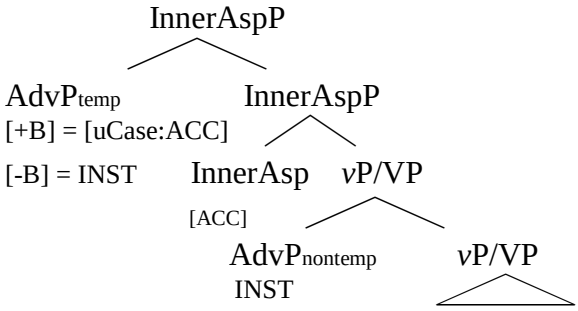
According to Szucsich (2001, 2002), temporal and locational adverbials, as in (55) do not delimit the temporal structure of the event in contrast to the Accusative adverbials discussed in (52) and (53) and therefore, they are not bounded expressions. Szucsich (2001, 2002) explains that the difference in case marking on nominal adverbials (Accusative vs. Instrumental) is due to the difference in feature value, where the telic (bounded) (i.e. [+B]) feature corresponds to Accusative case marking and the atelic unbounded (i.e. [-B]) feature corresponds to Instrumental case marking. Non-temporal adverbials as in (56) behave in a way similar to small clause arguments because according to Szucsich (2001:113) "they enrich the event with 'argument-like' participants" and are assigned Instrumental by the empty head Pred(icate) of the PredP, as shown in (57) taken from Bailyn (2012:227, example (104)). Instrumental case is analyzed here as a default case of nominal modifiers for the predicate domain.

(57)



In order to unify the analysis for Accusative and Instrumental adverbials (temporal and non-temporal), Szucsich (2001:114) proposes that the empty Pred category takes the DP adverbial as its complement, as in (57). This category adjoins to the lexical or functional projection of the verb. Instrumental case is analyzed here as a default case for predicative [+N] elements. This is illustrated by the structure presented in (58) adapted from Szucsich (2002:11, example (22)).

(58)



The structure of AdvP in (58) is shown in (57). In (58), as a result of agreement with the functional Head InnerAsp triggered by the feature [+B], Accusative case is assigned to a nominal adverbial. [-B] does not trigger agreement with InnerAsp and Instrumental case is assigned to a nominal adverbial.

The important conclusion to be taken from the discussion of the alternation between Accusative case and Instrumental case on nominal adverbials is that the assignment of case (Accusative vs. Instrumental) is linked to the aspectual properties of the predicate. This conclusion is relevant for the study discussed in this dissertation that empirically tests the relationship between lexical aspect and case in interlanguage grammars of L2 learners of Russian.

The link between aspect and case in Russian is further developed by Richardson (2007). This is discussed in the next section.

2.5 Richardson's (2007) proposal

Richardson (2007) acknowledges the relationship between lexical aspect and case. However, she argues (2007:51) that in Russian, structural Accusative case cannot be linked to telicity or the role of the argument as a situation delimiter, as discussed, for example in Szucsich

(2001, 2002) since there are many atelic predicates with Accusative case-marked arguments. This is illustrated in (59).

(59) Ivan pisal statj-u tri časa
Ivan wrote.IMPF article-ACC three hours
'Ivan was writing an article for three hours.'

The grammaticality of the predicate *pisal statju* 'was writing an article' with the adverbial phrase 'for X time' shows that the predicate is atelic; however, the object DP *statju* 'article' is marked with Accusative case. In order to account for this, Richardson (2007:50-52) proposes that case on the object DP (i.e. structural Accusative vs. lexical) in two-place predicates depends on the compositional event structure of the base verb (i.e. the verb without any prefixes). Compositionality is understood here as the possibility of the base form of a verb to be combined with a telic or lexical prefix that changes the telicity of the predicate from atelic to telic.[30] When the base form of a verb is compositional, then its object DP is marked with structural Accusative case regardless of whether the prefix is present or not. Consider the data in (60):

(60) a. Maša čitala knig-u dva časa/ *za dva časa.
Maša read.IMPF book-ACC two hours/ in two hours
'Maša was reading a book for two hours/ *in two hours.'

b. Maša pro-čitala knig-u za dva časa/ *dva časa.
Maša PF-read book-ACC in two hours/ two hours
'Maša read (to completion) the book in two hours/ *for two hours.'

[30] The idea that certain verbs are restricted to certain aspect markers and adverbials goes back to Dowty (1979). For example, following Comrie (1976), Dowty (1979:52) states that "in all languages semantic differences inherent in the meanings of verbs themselves cause them to have differing interpretations when combined with these aspect markers, and that certain of these kinds of verbs are restricted in the aspect markers and time adverbials they may occur with".

In (60), the base verb *čitat'* 'read.IMPF' has a compositional event structure; it merges with the telic prefix *pro-* that changes the telicity of the predicate from atelic, as in (60a), to telic, as in (60b). In (60a, b), the internal DP argument *knig-u* 'book-ACC' has structural Accusative case.

The base form of a verb is considered to be non-compositional when it can merge only with superlexical prefixes (e.g., the prefix *po-*) that do not change the atelicity of a predicate.[31] As most of the base verbs with non-compositional event structure are inherently atelic, they stay atelic despite the addition of a superlexical prefix. In this case, a prefixed perfective verb whose base verb has a non-compositional event structure assigns lexical case to its DP argument. This is illustrated by the examples in (61):

(61) a. Maša upravljala kantseljari-ej dva goda/ *za dva goda
Maša manage.IMPF office-INSTR two years/ in two years
'Maša was managing the office for two years/* in two years.'

b. Maša po-upravljala kantseljari-ej dva goda/ *za dva goda
Maša PF-manage office-INSTR two years/ in two years
'Maša managed the office for two years/* in two years.'

In (61), the base verb *upravljat'* 'manage' has a non-compositional event structure. It merges with the superlexical prefix *po-* that does not change the atelicity of the predicate; the predicate is atelic in (61a) and in (61b). As seen from (61a, b), the object DP argument *kantseljari-ej* 'office-INSTR' is assigned lexical Instrumental case.

The data presented above provide empirical evidence for Richardson's (2007) proposal that establishes the link between structural case and aspect. However, contra to other proposals

[31] The difference between telic, lexical and superlexical prefixes is discussed in section 2.2.1, and is summarized in Table 2. See also the discussion in 2.2.4.3.

(e.g., Pereltsvaig 2000, and Szucsich 2001, 2002) that argue for the relationship between structural case and telicity, Richardson (2007) links structural case to the compositional event structure of the verb (i.e. the ability of the base form of a verb to merge with telic or lexical prefixes that change the lexical aspect of the event from atelic to telic).

2.5.1 Richardson's (2007) proposal for case checking/ assigning mechanisms

According to Richardson (2007), the verbs whose base forms have a compositional event structure and inherently atelic base verbs whose event structure is not compositionally determined have different mechanisms for case checking/ assigning. Specifically, structural Accusative case is linked to the feature present on *v*; namely, the interpretable but unvalued feature [quantized] (Richardson 2007:91-106).[32] This assumption is built on the proposal that functional categories within the extended projection of a predicate include event structure information (Ritter and Rosen 1998, 2000).

In her analysis of the syntax of case in Russian, Richardson follows the feature valuing mechanism proposed by Pesetsky and Torrego (2004) and previously discussed in section 2.1. Recall from section 2.1 that Pesetsky and Torrego (2004) propose that in addition to the generally acceptable bi-conditional relationship between (un)interpretable and (un)valued features, lexical items come from the lexicon with uninterpretable but valued features and interpretable but unvalued features. Consider the following Latin example from Pesetsky and Torrego (2004:1, example (1)):

[32] Recall from section 2.2.1 that the feature [quantized] is referred to the property of the argument to be (non)homogeneous. According to Verkuyl (1993), the structure of a homogeneous argument does not deviate from the structure of its arbitrary chosen subintervals. Non-homogeneous arguments lack this property.

(62) a. Haec puella Romana ambulat.
this-NOM.FEM.SG girl-NOM.FEM.SG Roman-NOM.FEM.SG walks-3.SG

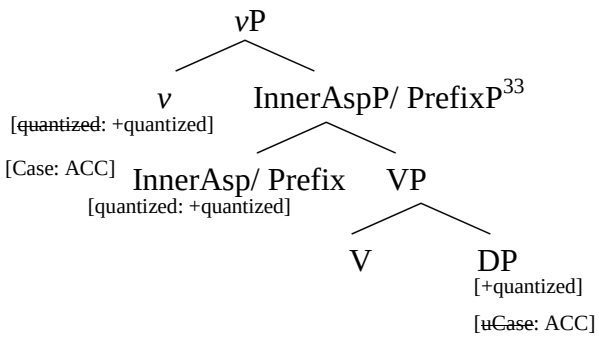
b. Hae puellae Romanae ambulant.
these-NOM.FEM.PL girls-NOM.FEM.PL Roman-NOM.FEM.PL walk-3.PL

In (62), the D(eterminier) *haec* 'this' in (62a) and *hae* 'these' in (62b), the N(oun) *puella* 'girl' in (62a) and *puellae* 'girls' in (62b), the A(djective) *Romana* 'Roman' in (62a) and *Romanae* 'Roman' in (62b) agree in number and gender. Person and number agreement is also present on the verb *ambulat* 'walks' in (62a) and *ambulant* 'walk' in (62b). Pesetsky and Torrego (2004:1) claim that D and A come from the lexicon with the unvalued features for number and gender, which acquire their values from the corresponding value of the N features. N comes from the lexicon with the valued features of number and gender. Pesetsky and Torrego (2004) claim that the support for the valued feature of number on N comes from the presence of *pluralia tantum* nouns like *scissors* that are always plural in form, which indicates that number on N is the feature that is valued in the lexicon. There are no *pluralia tantum* D and A at least in the languages that have been studied so far. This shows that the number feature on D and A is unvalued.

Following the proposal by Pesetsky and Torrego (2004), Richardson (2007) assumes that *v* has an interpretable but unvalued feature [quantized] that is valued against the aspectual feature [+quantized] or [-quantized] present on the elements within the *v*P. In Russian, a lexical prefix or a telic prefix carries the feature [+quantized]. The function of a telic and lexical prefix in Russian is similar to the quantized internal DP argument in English in that the lexical and telic prefix in Russian and the internal quantized DP argument in English change the event structure of a

predicate from atelic to telic. This is illustrated in (63) for Russian adapted from Richardson (2007:96, example (77)):

(63)



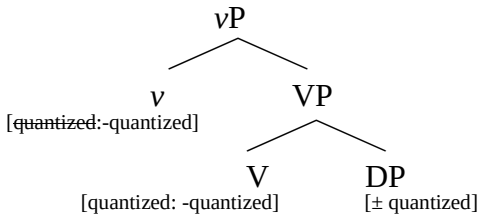
In the structure in (63), *v* has an interpretable but unvalued aspectual feature [quantized], which is valued against the valued aspectual feature [+quantized] present on the Head InnerAsp/ Prefix. In this structure, *v* values its interpretable but unvalued feature as [+quantized] against the closest element it c-commands. Once the feature on *v* is valued as [+quantized], the DP argument gets structural Accusative case as a type of 'side effect' of aspectual Agree, which takes place within the *v*P. This shows that structural Accusative case is aspectually relevant because it is linked to the mechanism of valuing the interpretable aspectual feature [quantized] present on little *v*. Thus, according to Richardson, structural Accusative case is not linked to telicity but rather to the compositional event structure of the base form of the verb (i.e. the ability of the base form of the verb to be combined with a telic or lexical prefix that carries the feature [+quantized]).

The base forms of the inherently atelic verbs come from the lexicon with the feature

[33] In the structure in (63), the projection is called InnerAspP/ PrefixP to show that InnerAspP/ PrefixP functions as the event measurer. In Russian, the event measurer is realized as a telic and lexical prefix, as in (63), whereas in English, as a quantized DP argument, as in (49).

[-quantized]. Recall that inherently atelic verbs cannot merge with lexical or telic prefixes that have the feature [+quantized]. In the absence of the projection InnerAspP/ PrefixP, the interpretable unvalued feature on *v* acquires its value [-quantized] from the closest element it c-commands; specifically, from the feature [-quantized] present on V. This is shown in the structure in (64), which is taken from Richardson (2007:98, example (79)).

(64)



Recall that when the *v*P gets the feature value [+quantized] as a result of the operation Agree that allows for feature valuing between the interpretable unvalued aspectual feature [quantized] present on little *v* and the feature [+quantized] present on the Head of the projection InnerAspP/ PrefixP, structural Accusative case is licensed as a 'side effect' of the operation Agree. The value of the DP (i.e. [±quantized]) does not matter for computing (a)telicity in Russian, as in Russian, in contrast to English, the argument DP does not measure out the event. How then is case licensed when the feature [quantized] on *v* acquires the value [-quantized] in the absence of InnerAspP/ PrefixP within the *v*P structure?

According to Pesetsky and Torrego (2009), in addition to functional categories, such as *v* and T that are responsible for case licensing, there are also lexical categories (e.g., verbs or prepositions) that can assign case. Specifically, a lexical item (e.g., a verb) takes semantic arguments and assigns their thematic roles together with case. Crucially, when a verb assigns

lexical case to its DP argument, no other licenser such as abstract case is necessary. This is shown in (32) repeated here as (65) for Icelandic and in (66) for Russian. The data is taken from Pesetsky and Torrego (2009:9-10, examples (27a) and (28b) for Icelandic and (30a, b) for Russian).

(65) a. Þeir luku kirkjunni
they finished the-church.DAT
'They finished the church.'

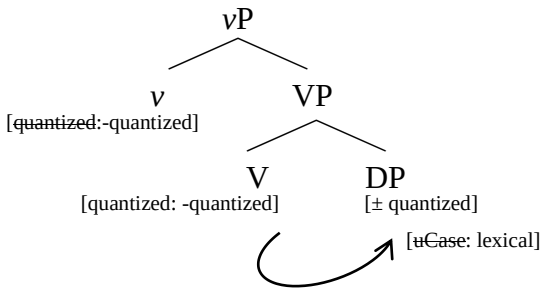
b. Kirkjunni var lokið (af Jóni)
the-church.DAT was finished
'The church was finished.'

(66) a. Ivan po-mog student-am
Ivan PF-helped students-INSTR
'Ivan helped the students.'

b. Maša upravljaet zavod-om
Masha manage.IMPF factory-INSTR
'Masha is managing the factory.'

Pesetsky and Torrego (2009) claim that in Icelandic, the case assigning mechanism is very similar to that of English. In other words, lexical case assignment is used as "paint" that covers the system of abstract case assignment that is used in English. Therefore, in example (65) above, when the verb is passivized, the case on the internal DP argument does not change. The example shows that when the sentence is passivized, the internal DP argument moves to the SpecTP position for case assigning purposes similar to DP arguments in English. Pesetsky and Torrego (2009:9-10) also argue that Russian has lexical case as a requirement of certain verbs, such as 'help' and 'manage', as in (66a, b), and that no other case licenser is necessary. Thus, in the structure in (64) repeated here as (67), the verb assigns lexical case to its DP argument.

(67)



To summarize Richardson's (2007) proposal, structural Accusative case is aspectually relevant. The main properties of the two-place base verbs with (non)-compositional events structure, as they are presented in Richardson (2007), are summarized in Table 5.

Table 5: Summary of the properties of the two-place base verbs according to Richardson (2007)

	Two-place base verbs with	
	compositional event structure	non-compositional event structure (i.e. inherently atelic)
• can merge with lexical or telic prefixes that change the event from atelic to telic	YES	NO
• can merge with superlexical prefixes that add perfectivity but do not change telicity	YES	YES
• internal argument is marked with structural Accusative Case	YES	NO
• internal argument is marked with lexical case	NO[34]	YES

2.5.2 Possible counterexamples

There are a number of counterexamples to the generalization proposed by Richardson, some of which are provided by Richardson (2007:81-91) herself and others by Bailyn (2012:134). According to Richardson (2007:81-83), the verb *dostigat'* 'to reach/ to achieve' assigns lexical Genitive case, as illustrated in (68) adapted from Richardson (2007:83, example (56)).

[34] Please refer to the next section for a discussion of the possible counterexamples to this generalization.

(68) Ja dostigla veršin-y za 15 minut
I reached.PF summit-GEN in 15 minute
'I reached the summit in 15 minutes.'

As seen in (68), the telic verb *dostigla* 'reached.PF' does not fit the pattern that all lexical case-assigning verbs are atelic. In this example, a telic verb assigns lexical case to its DP argument. Richardson (2007:83) argues that the verb *dostigat* 'to reach/ to achieve' selects a P(repositional) P(hrase) that can be overt or covert. When overt, P assigns lexical Genetive case to its argument. Example (69) is taken from Richardson (2007:83, example (55)) and shows that with the overt preposition *do* 'to' the DP argument is assigned lexical Genitive case.

(69) Ja dostigla do veršin-y
I reached.PF to summit-GEN
'I reached the summit.'

Therefore, the example in (68) cannot be considered a counterexample to the general pattern since lexical case is assigned by a covert preposition.

Bailyn (2012:134, footnote 12 citing Testelets (p.c.)) provides an example of the atelic verb *zvonit'* 'call' that becomes telic when the prefix *po-* is added to its verbal stem. The adverbial modification test shows that the predicate is telic; however, the argument DP is assigned lexical Dative case, as illustrated in (70) taken from Bailyn (2012:134, footnote 12):

(70) On po-zvonil im za odnu minutu
He PF-called them.DAT in one minute
'He called them in one minute.'

Despite the fact that Bailyn concludes that the predicate in (70) is telic, its status is unclear when other tests for telicity are applied. Consider the example in (71), where I apply the progressive test: [35]

(71) Kogda prišla mama, Petja zvonil Kolj-e →
when came mom Petja called.IMPF Kolja-DAT
'When mom came, Petja was calling Kolja.'

Petja uže po-zvonil Kolje
Petja already PF-called Kolja-DAT
'Petja already called Kolja.'

One of the readings of the progressive sentence is that Petja was engaged in the activity of making a phone call to Kolja, which entails that he called Kolja. In addition, it is possible to imagine a situation when Petja called Kolja but did not reach him and therefore, he continued calling him. This situation is illustrated by the example in (72):

(72) Petja po-zvonil Kolj-e (no ne do-zvonilsja)
Petja PF-called Kolja-DAT (but not reached)

i on vsjo eščo zvonil emu
and he all still called.IMPF him.DAT

kogda prišla mama
when mom came
'Petja called Kolja (but he didn't reach him) and he was still calling him when the mom came.'

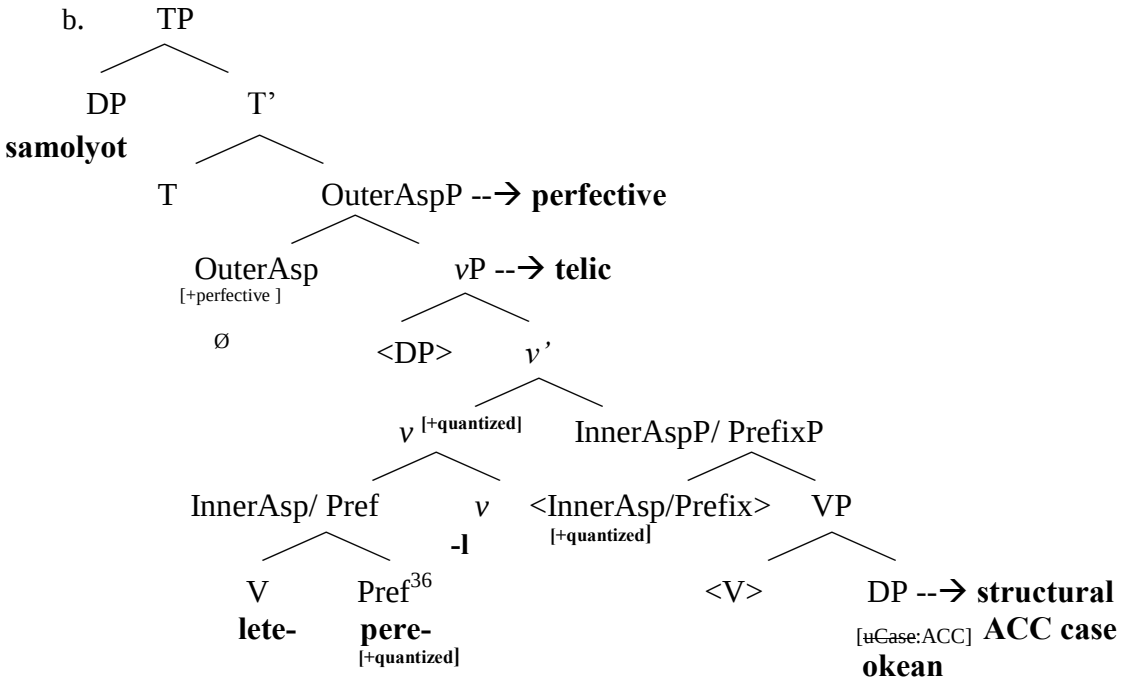
[35] Recall from section 2.2.4.1 that telic and atelic predicates have different logical entailments from progressive to non-progressive tenses. The atelic progressive predicates entail the non-progressive interpretation, whereas telic predicates do not.

Based on these examples it is possible to conclude that the verb *zvonit'* has a non-compositional event structure and as such assigns lexical Dative case to its DP argument and it does not provide a counterexample to the generalization proposed by Richardson (2007).

2.5.3 The main generalization: Two examples

In this section, I provide two examples that summarize the discussion on aspect and case presented in the chapter. Let us consider first the example in (73), where structural Accusative case is linked to the compositional event structure of the base form of a verb. The syntactic structure for (73a) is given in (73b). In this structure, I follow the mechanism of checking and valuing structural Accusative case that is described in section 2.5.1.

(73) a. Samolet pere-letel okean-ø (za dva časa/ * dva časa)
airplane PF-flew ocean-ACC (in two hours/ two hours)
'The airplane flew over the ocean (in two hours/ *for two hours).'



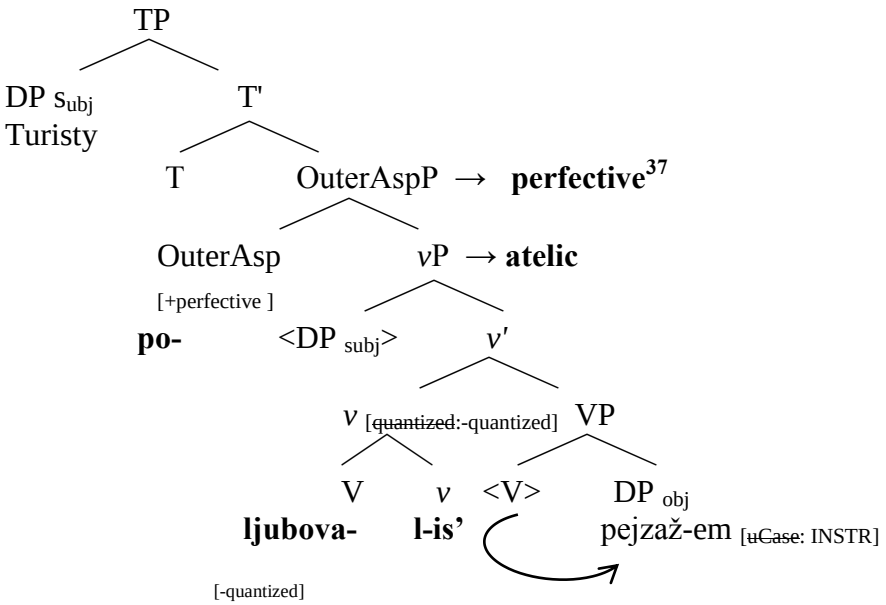
In (73a), the base form of the imperfective atelic verb *letet'* 'fly' is compositionally determined. This means that the base form can merge with the lexical prefix *pere-*, thus creating a new telic perfective verb *pere-letet'* 'fly.over'. In the syntactic derivation presented in (73b), the functional head little *v* has an interpretable but unvalued feature [quantized] which is valued as [+quantized] against the value [+quantized] of the feature present on the telic prefix *pere-*. Once the feature on little *v* is valued, the DP *okean-Ø* 'ocean-ACC' checks and values structural Accusative case as a type of aspectual Agree, which takes place within the *v*P.

Next let us consider the example in (74) that shows the link between atelicity and lexical case. The syntactic structure for (74a) is presented in (74b). Here I follow the mechanism of lexical case assignment that is described in section 2.5.1.

[36] I assume following Embick and Noyer (2001) that linearization of the derivational morpheme *pere-* takes place post-syntactically. The prefix *pere-* is a lexical prefix that affects the telicity of the event and thus must merge in the domain of the inner aspect (see also Slabakova 2005).

(74) a. Turisty po-ljubovalis' pejzaž-em (dva časa).
tourists PF-admired landscape-INSTR two hours
'The tourists enjoyed the landscape (for two hours).'

b.



In (74a), the predicate is atelic, as shown by the adverbial modification test. Since the atelicity of the predicate is not affected by the superlexical prefix *po*-, the event structure of the verb *ljubovat'sja* 'admire' is not compositionally determined (i.e. [-quantized]). The superlexical prefix *po*- makes the predicate perfective but does not change its telicity. Since in the absence of the event measurer (i.e. in this case telic or lexical prefix), the event is atelic, the structure in (73b) above lacks the functional projection PrefixP. In this case the lexical verb *ljubovalis'* 'admire' assigns lexical Instrumental case to its DP argument *pejzaž-em* 'landscape-INSTR', and no other case licensor is necessary. The predicate is atelic because the interpretable but unvalued

[37] In the syntactic structure presented in (74b), the superlexical prefix *po*- has no bearing on the compositionality of the event and therefore it merges outside the scope of the predicate domain under the functional projection OuterAspP.

feature [quantized] present on little *v* is valued against the feature [-quantized] present on V. This example shows the connection between atelicity and lexical case in Russian.

2.6 Chapter summary

Chapter 2 provides the theoretical background for the empirical study discussed in this dissertation. In this chapter, I have discussed the concept of features that is central to Minimalism. Since the focus of the empirical study is on the acquisition of aspect and case by adult L2 learners of Russian, I have also discussed the concepts of aspect and case for English and Russian.

In relation to aspect, I have focused on the following: (i) the two types of aspect (i.e. lexical and grammatical); (ii) compositionality of lexical aspect for English and Russian; (iii) tests for telicity; (iv) the difference between lexical and telic prefixes, on the one hand, and superlexical prefixes, on the other. I have also emphasized that in Russian, telicity should not be equated with perfectivity.

In relation to case, I have discussed the following concepts: (i) abstract case in generative grammar including Minimalism; (ii) structural and non-structural case; (iii) morphological case; (iv) case checking/ assigning mechanisms for English and Russian, and (v) the relationship between case and aspect. Special attention has been given in this chapter to the proposal developed by Richardson (2007) about the status of structural Accusative case in Russian as an aspectually relevant case. In particular, structural Accusative case in Russian is linked to the compositional event structure of the base form of a verb. The theoretical concepts presented in this chapter are important for the empirical study on the acquisition of aspect and case by L2 learners of Russian.

Chapter 3: An overview of the generative literature on the acquisition of aspect and case in L2 Russian

Before outlining the research hypotheses for the empirical study discussed in this dissertation, this chapter summarizes the relevant literature on the acquisition of aspect and case by adult L2 learners of Russian. Since the empirical study discussed in this dissertation is couched within the generative approach to L2 acquisition, it is important to understand the major theoretical assumptions of this framework, as well as the findings of the previous empirical research on the acquisition of case and aspect by L2 learners of Russian.

The chapter is structured in the following way. Section 3.1 provides a description of the general research agenda of generative SLA and the three major hypotheses that are proposed to account for the morphological variability of Interlanguage (IL) grammars of L2 learners, such as (i) the Missing Surface Inflection Hypothesis (Prévost and White 2000, White 2008), the Failed Functional Features Hypothesis (Hawkins and Chan 1997) and the Feature Re-assembly Hypothesis (Lardiere 2009). Section 3.2 presents a review of the two empirical studies conducted within the generative framework by Slabakova (2005) and Nossalik (2009) that investigate the acquisition of aspect by adult English speakers who are learners of L2 Russian.

To the best of my knowledge, there are no studies on the acquisition of case by L2 learners of Russian developed within the generative framework; therefore, section 3.3 briefly outlines what is known in the generative literature on the acquisition of case in English by reviewing the case study by Lardiere (1998). Section 3.3.2 summarizes proposals made in the non-generative and generative literature on the order of acquisition of the Russian case system by L1 learners. Considering the lack of empirical studies on the acquisition of case by adult L2 learners of Russian conducted within the generative framework, section 3.3.3 provides a review

of the two non-generative studies on the acquisition of case by L2 learners of Russian; specifically, that of Rubinstein (1995) and of Kempe and MacWhinney (1998). The importance of these two studies lies in the fact that they shed light on the order of acquisition of case by adult L2 learners of Russian. Section 3.4 concludes this chapter.

3.1 Major theoretical assumptions: Accessibility of UG in L2 acquisition

According to White (2003) and Ayoun and Rothman (2013), the goal of the generative approaches to SLA is to study and describe the IL grammars of L2 learners and the extent to which they are constrained by UG principles similar to the grammars of native speakers. The theoretical assumption is that the same UG that guides the acquisition of L1 is also accessible in L2 acquisition.

The term 'IL' is used here to refer to the competence or the linguistic system of an L2 learner. Selinker (1972:214) is one of the first linguists to introduce the term 'IL', which he defines as "a separate linguistic system based on the observable output which results from a learner's attempted production of a TL [target language] norm". In addition to latent language structure proposed by Lenneberg (1967), Selinker (1972:212) suggests the presence of a latent psychological structure present in the brain, which is activated when an L2 learner makes an attempt to express meaning in his/ her L2. The activation of the structure does not guarantee success in L2 and the structure may overlap with other intellectual structures.

Over years of research on IL grammars (see e.g., Lardiere 1998, Slabakova 1999, White 2003a, Slabakova 2005), it has been noticed that errors produced by L2 learners are not random. This observation has led to the conclusion that the linguistic system developed by an L2 learner is systematic and rule-governed. Moreover, it has been hypothesized that similar to the grammars

of native speakers, IL grammars of L2 learners are governed by the universal principles of UG. The goal of SLA researchers working within the generative paradigm is to describe and explain the IL grammars of L2 learners. Various researchers argue that the knowledge that L2 learners possess is implicit and subconscious (see e.g., White 2003, Ayoun and Rothman 2013, Whong et al. 2013). This argument is based on the assumption that it is difficult (if not impossible) to possess complete and adequate understanding of how the complex linguistic system works, so that the system can be explicitly taught to L2 learners. As early as 1969, Chomsky (1969:68) stated that "…it must be recognized that one does not learn the grammatical structure of a second language through 'explanation and instruction' beyond the most elementary rudiments, for the simple reason that no one has explicit knowledge about this structure to provide explanation and instruction."

Various empirical studies developed within the generative framework show the presence of subtle and nuanced knowledge that L2 learners possess (i.e. a kind of knowledge that is not learned through grammatical rules and explicit grammatical instruction).[38] To illustrate, in Slabakova's (2005) empirical study on the acquisition of telicity by English speaking adult L2 learners of Russian, it was found that L2 learners acquired telicity in Russian without being explicitly taught how to differentiate between telic and atelic events in L2 Russian. Thus, according to Lardiere (2009:218), it seems reasonable to assume that "the essential, biologically-constrained format and computational mechanisms of the human language faculty – appear to characterize second language [IL] grammars as well", and that the only way to account for the

[38] The issue of explicit and implicit learning is at the center of today's debate among SLA researchers working within generative and non-generative approaches to SLA (e.g., Ellis 2005, Whong et al. 2013). At the center of the debate is the question of whether explicit knowledge can become implicit tacit knowledge, which seems to be the ultimate goal of L2 acquisition. Researchers working within the generative paradigm have pointed out the problems with teaching L2 learners explicit grammatical rules that seem to have a tendency to overgeneralize and may not always adequately capture the complex linguistic phenomenon under discussion. In this case, it is argued (see e.g., Rothman 2008) that grammatical knowledge presented to L2 learners through explicit grammatical rules does not lead to implicit knowledge and, in fact, is in competition with the potential underlying linguistic competence.

tacit and subconscious knowledge that adult L2 learners seem to possess is to suggest a continued role of UG in the process of L2 acquisition.

3.1.1 Major theoretical assumptions: Three hypotheses to account for the variability of IL grammars

Various researchers (e.g., White 2003, Slabakova 2005, Hawkins et al. 2008, Lardiere 2009, Nossalik 2009) who work within the generative paradigm and who suggest the accessibility of UG in L2 acquisition have to account for variability of IL grammars of L2 learners. In other words, if it is assumed, following White (2003:2), that UG provides a "genetic blueprint" that governs the IL grammars of L2 learners in a manner similar to the grammars of L1 learners, then the question arises as to why the observed variability of the morphological realization of functional categories (e.g., agreement, tense, aspect, gender or case), which is not found in the grammars of native speakers. As an answer to this question, the following hypotheses have been proposed: (i) the Failed Functional Features Hypothesis (Hawkins and Chan 1997) that was later developed as the representational deficit approach (Hawkins 2001, Hawkins and Liszka 2003, Hawkins et al. 2008); (ii) the Missing Surface Inflection Hypothesis (Prévost and White 2000, White 2003a, White 2008); (iii) the Feature Re-assembly Hypothesis (Lardiere 2008, 2009). I discuss each of these below.

The representational deficit approach (Hawkins 2001, Hawkins and Liszka 2003, Hawkins et al. 2008) states that IL grammars are impaired due to the failure of L2 learners to select and represent uninterpretable features that are not present in their L1s. In other words, if uninterpretable features are not selected by language learners within the critical or sensitive

period for L2 acquisition, they are not accessible and therefore, not acquirable.[39] In other words, the UG inventory of uninterpretable features is no longer accessible to L2 learners and therefore, L2 learners have to utilize general cognitive mechanisms to acquire the properties associated with these features. The impossibility of acquiring uninterpretable features after the critical or sensitive period is the main reason for the differences between the IL grammars of L2 learners and the grammars of native speakers.

For the purpose of this dissertation, I will not entertain the representation deficit approach by Hawkins (2001), Hawkins and Liszka (2003), and Hawkins et al. (2008) based on the following. As stated in the literature (see e.g., Harley and Ritter 2002, Lardiere 2009), UG provides a set of morphosyntactic features that are systematically and hierarchically organized. The feature [uCase], the acquisition of which is studied in this dissertation, is one of the features that is supplied by UG. Following this assumption, it is difficult to find any natural language that lacks the feature [uCase]. Hawkins et al. (2008:329) states that uninterpretable L2 features are not accessible by L2 learners unless they are activated through L1 or acquired before the critical or sensitive periods for language acquisition. The discussion in chapter 2 showed that the feature [uCase] is available in both English and Russian; therefore, the theoretical assumption made by Hawkins (2001), Hawkins and Liszka (2003), and Hawkins et al. (2008), however interesting, is irrelevant for the discussion presented in this dissertation.

A competing proposal that accounts for the morphological variability of IL grammars of L2 learners is the Missing Surface Inflection Hypothesis (MSIH) (Prévost and White 2000, White 2003a, White 2008), according to which functional projections and features associated with them (i.e. interpretable and uninterpretable) are accessible to L2 learners; however, their

[39] A critical, sensitive period for L2 acquisition refers to a period of time within which the acquisition of language is possible to normal, native-like levels. This period is loosely defined between birth and puberty (Johnson and Newport 1989, Scovel 2000, Birdsong and Molis 2001).

morphological realization may not be target-like. According to White (2008:306-308), the MSIH was proposed based on the following observations of learners' output: (i) the alternation between missing inflection and native-like inflection in the production data of L2 learners; (ii) non-random substitution of correct forms for incorrect ones; (iii) the presence of features that are not found in learners' L1s.

It has been observed that in those cases when L2 learners supply morphological forms, they supply them correctly, for example, the morphological realization of the feature [+past] in English discussed in Lardiere (1998), section 3.4.1. The presence of the native-like morphological realization of this feature would be difficult to account for if the underlying feature [+past] were not present in the IL grammars of L2 learners. In addition, if the feature [+past] were absent from the IL grammars of L2 learners, then L2 learners would experience problems with Nominative case assignment.[40] This is due to the fact that the uninterpretable feature [uCase] on the subject DP is valued and checked against a matching feature present on the functional Head T. However, Lardiere's (1998) empirical study shows that the participant of her case study has never experienced problems with Nominative case assignment although she showed variability in supplying the correct inflection to mark the past tense in English. White (2008) explains that the failure of L2 learner to produce the inflection that marks the simple past tense in English does not mean that the tense projection with the feature [+ past] is not accessible by an L2 learner. This simply means that the link between the feature [+ past] and its morphological realization is broken due to some processing constraints. In other words, all

[40] At the time when Lardiere's (1998) case study was conducted, the assumption in the generative literature was that Nominative case is the result of checking the uninterpretable case feature of the DP against the Nominative case of the functional head T (Chomsky 1995). In current Minimalist work, Nominative case is a property of the phasal Head C (Chomsky 2008).

features (i.e. interpretable and uninterpretable) are accessible by L2 learners; however, they surface as impaired due to an interface problem from syntax to PF.

It has also been observed that when L2 learners substitute the correct inflections for incorrect ones, this substitution is not random. For example, Prévost and White (2000) discovered that non-finite verbs are usually used in place of finite ones but not vice versa. Their proposal is that this non-random pattern of substitution can only be accounted for by the presence of appropriate abstract features in the IL grammars of L2 learners.

White (2003) also argues that the IL grammars of L2 learners are not restricted to L1 features only. For example, she cites the study by Leung (2002) that investigates the acquisition of English articles by Chinese speakers. Since Chinese has the functional category of Classifier, but not the functional category Determiner, the study investigates whether Chinese speakers treat the English functional category Determiner as the Chinese functional category Classifier. One of the properties of classifiers in Chinese is that they can co-occur with definite and possessive pronouns as in the examples in (1) taken from (White 2003:132, example (1)).

(1) a. Keoi go mui hou leng.
his/her CL sister very beautiful
'His/her sister is very beautiful.'

b. *His/her the sister is very beautiful.

In Leung's (2002) study, Chinese L2 learners of English do not produce sentences such as those in (1b), and judge them as ungrammatical on a grammaticality judgement task. Leung argues that this provides evidence that the functional category Determiner with the feature [±definite], rather than the functional category Classifier, is present in the IL grammars of L2 learners. This study

supports the claim that underlying representation of L2 learners is intact and is not restricted to L1 properties only.

The third account of variability is known as the Feature Re-assembly Hypothesis (Lardiere 2009). In a feature-centered linguistic theory, functional categories and lexical items are bundles of features. The features employed in a specific language are selected from the universal inventory of features and assembled into bundles or matrices. Following Chomsky (1993), feature selection and feature assembly are language specific. To illustrate this point, Lardiere (2009:182) provides an example of the feature bundle for the functional category T that has at least the following features: an EPP* feature, the values [±past], and in those cases, where the value is [-past], the uninterpretable unvalued phi-features [uNumber] and [uPerson].[41] However, the functional category T in English does not have the feature [uGender], which is present in Russian because in Russian, but not in English, subjects agree with their verbs in terms of gender. In this feature-centered approach to L2 acquisition, the process of L2 acquisition means having to select features that may or may not be present in the learner's L1, assembling them into new bundles and reconfiguring them onto new functional categories and lexical items.

Lardiere (2009) argues against the representational deficit approach of Hawkins et al. (2008). Specifically, Lardiere (2009:216) states that "to the extent that the inventory and organization of morphosyntactic features reflect 'the grammaticalization of fundamental cognitive categories' (Harley and Ritter 2002), there is little reason to think that the categories encoded by features are substantially different cross-linguistically or especially that they are ultimately inaccessible to adult learners". The proponents of the feature geometry approach

[41] According to Travis (2008:26), The Extended Projection Principle (i.e. EPP) was first introduced as the requirement for every sentence to have a subject. Currently, this requirement is reduced to the strong EPP feature that causes movement of the subject DP from its based-generated position inside the *v*P to the Spec, TP position. The diacritic '*' shows that the feature is strong.

(Harley and Ritter 2002, Cowper 2005), which Lardiere (2009) refers to while building her arguments against the representational deficit approach, tell us that the set of features and their hierarchically organized relations are universally constrained, which to some extent makes the learning task easier. However, an L2 learner still has to learn the form and feature content of language-specific lexical items and functional categories, which may constitute a learning problem for L2 learners and may account for the variability of IL grammars of L2 learners. According to Lardiere (2008, 2009), the starting point of this learning is L1 features, feature bundles, and the way they map onto functional categories and lexical items in the learner's L1. Consequently, we must assume that L1 features remain accessible in the L2 acquisition process.

In this section, I have summarized the three current generative grammar hypotheses that account for the morphological variability observed in the production data of L2 learners. These three hypotheses are based on the assumption of the general accessibility of UG by L2 learners and, in particular, the general accessibility of interpretable features provided by UG. However, the discussed hypotheses assume different degrees of accessibility of uninterpretable features that are not instantiated in the L1s of adult L2 learners. According to the representation deficit approach by Hawkins and Liszka (2003), Hawkins et al. (2008), uninterpretable features that are not found in learners' L1s are not accessible and therefore not acquirable by adult L2 learners. The MSIH (e.g., White 2008) states that uninterpretable features are accessible by L2 learners; however, they surface as impaired due to an interface problem from syntax to PF. The Feature Re-assembly Hypothesis (Lardiere 2008, 2009) assumes the general accessibility of interpretable and uninterpretable features (on the accessibility of the uninterpretable feature [uCase], see e.g., Lardiere 1998 discussed in section 3.4.1); however, the morphological variability found in the data of L2 learners is due to the difficulty of re-assembling the universally accessible features

into new bundles and reconfiguring them onto new functional categories and lexical items. Based on the above discussion of the three major models of L2 acquisition, it seems that White (2008) and Lardiere (2008, 2009) both agree that even uninterpretable features are accessible and acquirable in L2. However, they differ on the source of the variability in L2. These models are different from Hawkins and Liszka (2003) and Hawkins et al. (2008), where uninterpretable features in L2 are only accessible and acquirable if they are also available in L1.

3.1.2 Major theoretical assumptions: The directionality of learning

The three hypotheses proposed by Hawkins (see e.g., Hawkins et al. 2008), White (see e.g., Prévost and White 2000, White 2008) and Lardiere (2008, 2009) discussed in section 3.1.1 account for the variability of IL grammars of L2 learners. They describe and interpret the knowledge that L2 learners already possess. The question that is discussed in this section is about the directionality of learning.

Within the Principles and Parameters framework, the original proposal was made for a separate learning strategy which regulates the markedness hierarchy and the directionality of learning known as the Subset Principle. The Subset Principle was originally proposed by Berwick (1985), developed in Wexler and Manzini (1987), and in Clark and Roberts (1993). Biberauer and Roberts (2009) comment on the learnability problem in L1 and use the Subset Principle to account for syntactic change. Specifically, Biberauer and Roberts (2009) state that if L1 acquirers do not make use of negative evidence (i.e. evidence of what is not possible in language), they might hypothesize the superset grammar. In other words, if a grammar generates a language which is a superset language of the target language, then there is no negative evidence to disconfirm it. Therefore, L1 acquirers must always start with the grammar that

generates the smallest language consistent with the positive evidence. This means that something like the Subset Principle must be assumed to account for L1 acquisition. Biberauer and Roberts (2009) further argue that since syntactic change is driven by language acquisition, the Subset Principle is also relevant to syntactic change. While Biberauer and Roberts have in mind diachronic change, for the purpose of this dissertation, I use the Subset Principle to account for the syntactic change in IL grammars, specifically, to establish the hierarchy of learning the cluster of features related to aspect and case and explain why a less marked cluster of features [+telic, +perfective] and [uCase: ACC] is learned before a more marked cluster of features [-telic, +perfective] and [uCase: lexical].[42]

3.2 An overview of two studies on the acquisition of aspect by L2 learners of Russian

The purpose of this section is to present an overview of the studies that target the acquisition of aspect by L2 learners of Russian. Since the empirical study presented in this dissertation investigates how English speaking L2 learners of Russian acquire Russian aspect and case, I only review the studies on the acquisition of aspect by English speaking learners of L2 Russian. In the literature on the acquisition of aspect developed within the generative framework, I have identified only two such studies -- Slabakova (2005) and Nossalik (2009). Pereltsvaig

[42] One might argue that the Subset Principle cannot be applied to account for the syntactic change in the IL grammars of L2 learners due to the negative evidence that L2 learners have access to in an L2 classroom. It is true that L2 learners are provided with negative evidence that ranges from explicit error correction to implicit recasts; however, due to the lack of consistent empirical evidence, especially from longitudinal studies, it is not quite clear if L2 learners make use of negative evidence or if negative evidence affects the acquisition of implicit rather than explicit knowledge. Research on the effectiveness of corrective feedback in L2 classroom (for a review of the studies on the effectiveness of corrective feedback see e.g., Ortega 2009) has shown that a number of different variables should be considered in order for L2 learners to make use of negative evidence. These variables include degree of explicitness of feedback, proficiency level of L2 learners, task design, linguistic complexity of the structure being corrected, teacher's preferred strategy, classroom context (content-based instruction versus language classroom). In order for corrective feedback to be effective, all the variables should be considered, which is quite a complex task. The issue of the effectiveness of corrective feedback is still being debated in the field and more studies are needed in order to identify whether L2 learners make use of negative evidence. Since there is no consensus on the role of negative evidence in L2 acquisition, I will assume the Subset Principle in order to account for the syntactic change in the IL grammars of L2 learners.

(2008) investigates the loss of grammatical aspect by heritage speakers of Russian rather than by L2 learners of Russian; therefore, this study is not reviewed in this dissertation.

The two summaries presented below consider the role of L1 transfer in the acquisition of L2 aspect by adult English-speaking learners of Russian; the hypotheses formulated in the studies are theory-driven, in that both studies investigate the Full Transfer/ Full Access Hypothesis formulated within the principles and parameters framework (Schwartz and Sprouse 1996).

3.2.1 Slabakova (2005): Acquisition of telicity by English speaking L2 learners of Russian

Slabakova (2005) investigates the acquisition of telicity by English learners of L2 Russian. Acquisition of aspect is considered extremely difficult for L2 learners of Russian, and this difficulty has been acknowledged in the pedagogical literature (Altman 1992, as cited in Slabakova 2005:63). However, Slabakoba questions this assumption by clarifying that in the acquisition of telicity in Russian, a distinction should be made between grammatical and lexical learning. Grammatical learning concerns itself with the (im)possibility of accessing the functional category of aspect, and the feature checking mechanisms that are associated with this functional category by adult L2 learners of Russian. Lexical learning refers to the acquisition of specific morphemes (in this case, telic prefixes) that mark telicity in Russian. More specifically, an L2 learner should know what prefixes can be attached to what imperfective verbal stems. In her study, Slabakova argues that L2 learners of Russian have no problems with the acquisition of the syntactic mechanism of marking telicity in Russian (i.e. grammatical learning); rather, they experience difficulties with the second (i.e. lexical) type of learning.

Slabakova develops her study within the principles and parameters framework of generative grammar; in particular, she refers to the Full Transfer/ Full Access hypothesis proposed by Schwartz and Sprouse 1996. This hypothesis states that the initial state of L2 grammar is L1; in other words, at the beginning of L2 learning, L2 learners adopt the L1 value of parameters but once L2 learners get more exposure to L2, they can reset parameters from their L1 value to their L2 value. This hypothesis also assumes access to UG by adult L2 learners, the principles of which restrict the possible grammars that can be created by L2 learners.

When applying this hypothesis to the study, Slabakova predicts that in the acquisition of Russian lexical aspect, English learners initially pay attention to the status of the direct object.

Recall that in English, the event is telic if a dynamic verb is combined with a singular countable direct object or an object modified by a demonstrative pronoun or a quantifier (e.g., *eat an apple/ this apple/ two apples*). In contrast, the event is atelic if a dynamic verb is combined with a mass noun or a bare plural noun (e.g., *drink water*, *eat apples*).

As discussed in chapter 2, in Russian, telicity is signalled by a prefixed perfective verb. Slabakova acknowledges that in Russian, perfectivity should not be equated with telicity and that not all prefixed verbs are telic. However, in her study, she chooses to focus on the unambiguously perfective and telic verbs, and perfectivizing telic prefixes (e.g., *myt'* 'wash.IMPF' vs. *vy-myt'* 'PF-wash.up').[43] Slabakova also excludes from her study verbs prefixed with lexical prefixes and superlexical prefixes. Recall further from our discussion in chapter 2 that lexical prefixes change the lexical meaning of the verb (e.g., *pisat'* 'write.IMPF' vs. *pod-pisat'* 'PF-sign') in addition to marking perfectivity and telicity, and that superlexical prefixes (e.g., *po-*) mark perfectivity but do not change telicity (e.g. *sidet'* 'sit.IMPF' vs. *po-sidet'* 'PF-sit.for.a.while').

Following the Full Transfer/ Full Access hypothesis (Schwartz and Sprouse 1996), Slabakova makes the following two predictions: 1) at the beginning of the acquisition of Russian lexical aspect, English L2 learners will pay attention to the status of the direct object (in other words, these learners transfer the value of the parameter from their L1 English); 2) assuming the accessibility of UG, L2 learners will be able to reset the parameter value because telicity is a universal semantic feature provided by UG.

The participants in her study were an experimental group of 66 English speaking L2 learners of Russian and a control group of 45 native speakers of Russian. Based on the results of

[43] For a full list of imperfective atelic verbs and prefixed perfective telic verbs used in the study, see Slabakova (2005:70-71).

a cloze test, the 66 participants of the experimental group were divided into three proficiency groups: Advanced, High-Intermediate and Low-Intermediate.[44]

In order to test the two predictions mentioned above, Slabakova develops an interpretation test. In this test, participants are asked to read a sentence and suggest its potential continuation out of three possible options (A, B, and C). In order to choose the correct continuation of the event expressed in the first sentence, the L2 learner has to interpret the sentence as telic or atelic. Three conditions are manipulated in the interpretation test. Condition A includes sentences with mass and bare plural nouns as objects. Condition B includes sentences with countable and singular objects. Condition C includes objects that are modified by overt demonstrative pronouns or quantifiers. (See Slabakova 2005:77 for the sentences included into the interpretation test with the three conditions). There are 10 experimental sentences per each condition (i.e. 5 sentences include imperfective verbs and 5 sentences include prefixed perfective telic verbs).

The results of the interpretation test on imperfective and perfective sentences reveal that there are no statistically significant differences among the test results of the Control, Advanced and High-Intermediate groups. Only the Low-Intermediate group is significantly different from the other groups. However, despite the difference, the participants in the Low-Intermediate group demonstrate emerging knowledge of Russian lexical aspect. When comparing the individual

[44] Following Oller (1979), McNamara (2000:15) and Brown (2004:8) define a cloze test as an integrative test that claims to measure overall language proficiency of L2 learners. A cloze test is usually a reading passage that consists of 150 to 300 words, in which every sixth or seventh word has been deleted and a test-taker is asked to supply the appropriate words. It is believed that if L2 learners are capable of supplying the words, this can be used as evidence of their knowledge of vocabulary, grammar, discourse, reading skills, and learning strategies, which altogether reflect their overall language proficiency. In the cloze test used in Slabakova (2005:69), the participants are asked to choose the correct form of the word out of the three possible options available to them. It should be noted, however, that according to the definition of a cloze test to be used as a measure of overall language proficiency, L2 learners should *supply* the correct word in its correct grammatical form rather than to *choose* one out of the three possible options available to them. Therefore, the modified version of the cloze test used in Slabakova (2005) cannot be claimed to be an adequate measure of the overall language proficiency, thus questioning the validity of the results of the study.

results of the participants in a group, 55% of the L2 learners of the Low-Intermediate group correctly interpret the imperfective sentences with a count object as atelic, whereas 60% of the L2 learners correctly interpret the imperfective sentences with demonstrative objects as atelic. Furthermore, 40% of the participants in the Low-Intermediate group correctly judge the perfective sentences with mass/ bare plural objects as telic. Based on the results of the test, Slabakova concludes that the majority of the participants in her study either have fully acquired the grammatical mechanism for telicity marking in Russian or have demonstrated the emerging knowledge of this mechanism.

The implications of Slabakova's study are the following. First, the study provides empirical evidence that supports the Full Transfer/ Full Access hypothesis, which states that "access to functional categories in adult non-native acquisition is not impaired but is in fact fully operational" (Schwartz and Sprouse 1996:75). In addition, the study challenges the well-established fact about the difficulty of learning how to manipulate telicity in Russian. Slabakova's study demonstrates that adult L2 learners of Russian are capable of acquiring the grammatical mechanism responsible for telicity marking. However, what they have problems with is lexical learning of telic prefixes and the way they cluster with the imperfective verbal stems.

3.2.2 Nossalik (2009): Acquisition of lexical and grammatical aspect by L2 learners of Russian

Nossalik (2009) investigates the acquisition of lexical and grammatical aspect by English learners of L2 Russian. She conducts two experiments. The first experiment is a replication of Slabakova (2005) discussed above. In other words, she investigates how L2 learners of Russian

acquire lexical aspect. The second experiment investigates the acquisition of grammatical aspect by L2 learners of Russian. This section provides a description of experiment 1 and experiment 2 of Nossalik's (2009) study.

3.2.2.1 Nossalik (2009): Experiment 1

For experiment 1, Nossalik uses 41 participants that she divides into Advanced, High-Intermediate and Low-Intermediate groups based on the results of a cloze test.[45] The control group consists of 10 native speakers of Russian. For experiment 1, Nossalik uses 40 test sentences, out of which 20 sentences contain unprefixed imperfective verbs and 20 sentences contain prefixed perfective verbs. For each set of imperfective and perfective verbs, 10 of the verbs are used with non-quantized DPs (e.g., mass nouns, bare plurals) and 10 are used with quantized DPs (e.g., count nouns, nouns of specified quantity). An example of how the verbs are used with their DP arguments in a truth value judgement task is given in (2):

(2) a. Petja gladil rubašk-i
Petja ironed.IMPF shirt-PL
'Petja was ironing shirts.'

b. Petja po-gladil rubašk-i
Petja PF-ironed shirt-PL
'Petja ironed shirts.'

Each sentence is presented to the participants twice and is accompanied by a picture. For example, the sentence in (2b) is shown twice with two pictures; once with a picture that depicts a

[45] All the participants included in the study were adult L2 learners of Russian. 14 participants out of 41, who were recruited and tested in Montreal, were also proficient in French. Their proficiency ranges from basic to advanced (Nossalik 2009:231); however, Nossalik does not comment on whether the participants' knowledge of French as their additional language would have had any effect on the results of her study.

completed event, and a second time with a picture that depicts an incomplete event. Each time the participants are shown a picture, they are asked to make a judgement as to whether the accompanying sentence matches the event presented in the picture. In order to do so, they must answer '*Yes', 'No', 'I don't know'*. In the case of (2b), the correct choice would be to match the sentence with the picture that shows the completed event despite the presence of a non-quantized DP argument (i.e. *rubašk-i* 'shirt-PL') since the event is both perfective and telic.

The results of Nossalik's experiment 1 are similar to the results of Slabakova's (2005) study. Specifically, the participants in the Advanced and High-Intermediate groups perform like native speakers in interpreting sentences with the prefixed perfective sentences as telic and sentences with unprefixed imperfective verbs as atelic despite the status of DP arguments (quantized vs. non-quantized). The only significant difference is found in the performance of the Low-Intermediate group; however, even for the Low-Intermediate group, the mean of correct interpretations of sentences with the prefixed perfective verbs as telic is higher than the mean of incorrect interpretations of sentences with the perfective prefixed verbs as atelic (17.6 vs. 6.2; mean acceptance of the sentences is given out of 20) (Nossalik 2009:239). When interpreting the sentences with imperfective verbs, the participants in the Low-Intermediate group are again significantly different from other groups. However, their performance is not significantly different from the performance of other participants on one of the conditions of the study; specifically, when the sentences with imperfective verbs are incorrectly interpreted as completed events.[46] The important comment here, however, is that all the participants (i.e. including the

[46] In Russian, imperfective verbs can potentially entail completion. Consider example (25) from chapter 2, section 2.2.4.3 repeated here as (i). In this example, the verb is imperfective; however, the predicate is telic.

(i) Vy čitali Vojnu i Mir?
you read.IMPF War and Peace
Did you read War and Peace?

In Slabakova's (2005) experiment, this condition is accounted for as the participants are given the option where a sentence with an imperfective verb can potentially entail completion. In her dissertation, Nossalik (2009:237)

Low-Intermediate group) correctly judge the sentences that have prefixed perfective verbs as completed events more often than they incorrectly judge the sentences containing imperfective verb as completed events.

To summarize, the first part of Nossalik's experimental study (2009) replicates the findings of Slabakova's (2005) study. Both studies demonstrate that Advanced and High-Intermediate English learners of L2 Russian are capable of resetting the telicity parameter from the English to the Russian setting. Low-Intermediate learners of L2 Russian demonstrate negative transfer from L1 and emerging knowledge of the Russian lexical aspect.

3.2.2.2 Nossalik (2009): Experiment 2

The purpose of Nossalik's experiment 2 is to understand how L2 learners of Russian acquire grammatical aspect (i.e. perfective and imperfective verbs including Secondary Imperfectives (SIs)). In particular, experiment 2 is divided into the four parts. The first part of experiment 2 deals with the acquisition of the following properties of perfective verbs: (i) perfectives in Russian cannot give rise to on-going and habitual interpretations; (ii) they cannot be used in the analytic future with the verb *byt'* 'will'; (iii) when used without the auxiliary *byt'* 'will', they undergo a meaning shift into future. These properties of perfectives are illustrated by the examples in (3) adapted from Nossalik (2009:249-250).

---

acknowledges that "although IMP [imperfective] verbs do not entail completion they are, nonetheless, compatible with completed events"; therefore, a picture that depicts a completed event could be possibly matched with the sentence that has a prefixed perfective verb (a better/ preferred choice according to Nossalik) and with a sentence that contains an imperfective verb. It is interesting that the native speakers in Nossalik's (2009:239) study match the sentences that contain imperfective verbs with the pictures that show completed events (the mean is 15.5 out of 20), as compared to 8.6 (Advanced), 9.5 (High-Intermediate) and 10.7 (Low-Intermediate). In this case, the mean of Low-Intermediate group is higher than the mean of Advanced and High-Intermediate groups and close to the mean of the control group. The statistical procedure shows that the results of the groups on this condition are not significantly different.

(3) a. *V nastojaš'ij moment Petina komanda pro-igraet match.[47]
at this moment Petja's team PF-play match
Intended on-going reading: 'At this moment, Petja's team loses (completely) the match.'

b. *Policija reguljarno raz-isčet etix prestupnikov.
police regularly PF-search.for these criminals
Intended habitual reading: 'The police regularly search for (and find) these criminals.'

c. *Zavtra Nina budet po-stirat' svoji jubki.
tomorrow Nina will PF-wash her skirts.
Intended future interpretation: 'Tomorrow Nina will wash her skirts.'

d. Čerez 10 minut Petja vy-učit eto stixotvorenie naizust'.
in 10 minutes Petja PF-learn this poem by-heart.
'In 10 minutes, Petja will learn this poem by heart.'

The ungrammaticality of the data in (3a, b) show that perfective verbs in Russian cannot yield on-going and habitual interpretations. In addition, perfective verbs cannot be used in the analytic future with the verb *byt'* 'will', as in (3c). However, when used without this auxiliary, perfective verbs undergo a meaning shift into future, as in (3d).

The second part of experiment 2 targets the acquisition of imperfectives that (i) allow on-going and habitual readings; (ii) are grammatical in the analytic future with the verb *byt'* 'will'; and (iii) are ungrammatical when used in the future tense sentences. These properties of imperfectives are illustrated in the examples in (4) adapted from Nossalik (2009:282).

(4) a. V nastojaš'ij moment Nina igraet s Olej.
at this moment Nina play.IMPF with Olja
'At this moment, Nina is playing with Olja.'

[47] In (3a), the stem *igraet* is translated as 'play'. When the lexical prefix *pro-* is added to the imperfective *igraet* 'play', the verb changes its meaning from 'play' to 'lose'; therefore, *igraet* is translated as 'play', in the gloss line, and the perfective *pro-igraet* is translated as 'lose' in the translation line.

b. Kolja postojanno isčet novyx druzej.
Kolja continuously looking.for.IMPF new friends
'Kolja continuously looks for new friends.'

c. Teper' Olja budet stirat' odeždu tol'ko rukami.
now Olja will wash.IMPF clothing only hands.
'From now on, Olja will wash clothing only by hand.'

d. *Čerez čas Kolja učit različnie jaziki.
in hour Kolja learn.IMPF various languages
Intended future meaning: 'In an hour, Kolja will be learning various languages.'

The data in (4) show that imperfectives in Russian yield on-going and habitual interpretations, as seen in (4a, b). They can be used in the analytic future, as seen in (4c), and they can never have a shifted future tense reading, as seen in (4d).

The third part of experiment 2 deals with the acquisition of SIs that can yield on-going and habitual interpretations, as illustrated in the examples in (5) adapted from Nossalik (2009:274).

(5) a. V nastojaš'ij moment Petina komanda pro-igr-yva-et match.
at this moment Petja's team PF-play-SI-3.SG match
'At this moment, Petja's team is losing the match.'

b. Policija reguljarno raz-iski-iva-et etix prestupnikov.
police regularly PF-search.for-SI-3.SG these criminals
'The police are regularly searching for these criminals.'

The SIs used in (5) are the counterparts of the present tense perfectives used in (3a, b). The difference is that the present tense perfectives cannot give rise to on-going and habitual interpretations, as in (3a, b), whereas SIs can, as illustrated in (5).

The fourth part of the experiment deals with the acquisition of the SI suffix *-va*. Recall from chapter 2 that SIs are formed from perfective telic verbs. SIs cannot be formed from atelic verbs, as illustrated by the examples in (6) adapted from Nossalik (2009:288).[48]

(6) a. *V nastojaš'ij moment Nina igr-yva-et s Olej.
at this moment Nina play.IMPF-SI-3.SG with Olja
Intended on-going reading: 'At this moment, Nina is playing with Olja.'

b. *Kolja postojanno isk-iva-et novyx druzej.
Kolja continuously look.for.IMPF-SI-3.SG new friends
Intended habitual reading: 'Kolja continuously looks for new friends.'

The ungrammaticality of the examples in (6) shows that the SI suffix *va-*, realized in this case as *-iva/ -yva*, cannot attach to the imperfective stems, as in (6a, b).

In order to check the knowledge of the Russian perfective and imperfective verbs including SIs, the L2 learners of Russian are given a computerized and timed grammaticality judgement task that includes 100 sentences including 20 distractors. The participants are asked to judge the sentences for their grammaticality by choosing one of the following answers: '*Yes', 'No', 'I don't know'*. The sentences are presented one at a time. The breakdown of the experimental sentences included in the grammaticality judgement task that checks the acquisition of the properties of perfective and imperfective verbs is presented in Table 6.

[48] According to Nossalik *-va* is the suffix that is added to a perfective verb prefixed with a telic or lexical prefix to form a SI. All other suffixes (e.g., *-iva/ -yva*) are allomorphs.

Table 6: The breakdown of the experimental sentences included in the grammaticality judgment task

Properties of perfective verbs	Number of sentences included in the grammaticality judgement task
(i) No-ongoing interpretation	5 ungrammatical sentences
(ii) No habitual interpretation	5 ungrammatical sentences
(iii) Future interpretation without *byt'* 'will'	10 grammatical sentences
(iv) No analytic future interpretation (i.e. with *byt'* will)	10 ungrammatical sentences
Properties of imperfective verbs	
(i) On-going interpretation	5 grammatical sentences
(ii) Habitual interpretation	5 grammatical sentences
(iii) No future interpretation without *byt'* 'will'	10 ungrammatical sentences
(iv) Analytic future interpretation (i.e. with *byt'* will)	10 grammatical sentences
Properties of SIs	
(i) On-going interpretation	5 grammatical sentences
(ii) Habitual interpretation	5 grammatical sentences
Acquisition of the SI suffix *-va*	

(i)	No SIs formed from atelic verbal stems that yield on-going interpretation	5 ungrammatical sentences
(ii)	No SIs formed from atelic verbal stems that yield habitual interpretation	5 ungrammatical sentences

In what follows, I present a summary of Nossalik's interpretation of the results of the grammaticality judgement task.

In order to check knowledge of the shifting operation of the present tense perfective verbs in the future that blocks their on-going and habitual interpretation, the participants are given 5 sentences with present tense prefixed perfective verbs that incorrectly yield on-going interpretation and 5 sentences with present tense prefixed perfective verbs that incorrectly yield habitual interpretation, and 10 prefixed perfective verbs that correctly yield future interpretation. The sample of the data is presented in (3a, b, d).

It should be noted that on the grammaticality judgement task, the verbs chosen to incorrectly yield on-going and habitual interpretations are prefixed with lexical prefixes. Recall from chapter 2 that in addition to changing telicity, lexical prefixes change the meaning of the verb. For example, in (3a), the imperfective verb *igrat'* 'play.IMPF' is prefixed with the prefix *pro-* that changes the meaning of the verb (i.e. *pro-irgat'* 'PF-lose'). At the same time, the perfective verbs that correctly yield a future interpretation are prefixed with lexically 'empty' prefixes (i.e. telic prefixes). As discussed in chapter 2, these prefixes add telicity but do not

change the lexical meaning of the verb (e.g., *učit'* 'learn.IMPF' vs. *vy-učit'* 'PF-learn'). The participants, especially in the High-Intermediate and Low-Intermediate groups, show better performance on the future interpretation sentences than on the on-going and habitual interpretations. In other words, they incorrectly judge the ungrammatical sentences with on-going and habitual interpretation as grammatical.[49] The results are explained as follows. In order for an L2 learner to apply a shifting operation in Russian that would block on-going and habitual interpretation of prefixed perfective verbs, an L2 learner should assign a correct structure to the predicate. In order to do so, they should decompose the prefixed verbs into a prefix (i.e. a perfectivity and a telicity marker) and a verbal root. It is easier to assign structure to the verbs that are prefixed with lexically empty prefixes. It is more difficult to decompose the perfective verbs prefixed with lexical prefixes. Nossalik claims that because lexical prefixes add idiosyncratic meaning to the verbs they attach to, these forms are memorized as one morphological chunk. The perfective verbs that are correctly used to yield future interpretation consist of the purely telic perfective prefixes; therefore, their morphological structure is transparent. L2 learners have no problems while analyzing them and assigning structure to them, hence a better performance on the perfective verbs that correctly give rise to future interpretations.[50]

[49] It should be noted that instructed L2 learners of Russian are given a pedagogical rule that explicitly teaches them that in Russian, perfective verbs can give rise to future interpretations. Nossalik (2009) acknowledges this fact (see footnote 241:253); however, she assumes that formal instruction has very little, if any, effect on the process of L2 acquisition.

[50] A comment should be made here about transparency of the verbs used in this part of the experiment. Nossalik argues that the verb *pere-čitat'* 'PF-read' that means 'reading something again' cannot be decomposed by L2 learners and is stored as an unanalyzed morphological chunk; however, *pere-plyt'* 'PF-swim', as in 'swim across', can be analyzed into a prefix and a verbal root. It is not quite clear why this is so because the two verbs have the same prefix (classified by Nossalik as lexical in one case and telic in another) and the verbal roots of the verbs *čitat'* 'read.IMPF' and *plyt'* 'swim.IMPF' are verbal roots of high frequency verbs. Even taking into consideration the fact that Russian prefixes are polysemous (i.e. the same prefix can be used as a lexical prefix with one verbal root and a purely telic prefix when combined with another root), it is not quite clear what prevents L2 learners from decomposing and analyzing the prefix *pere-* as a telicity marker in the verb *pere-čitat'* 'PF-read.again).

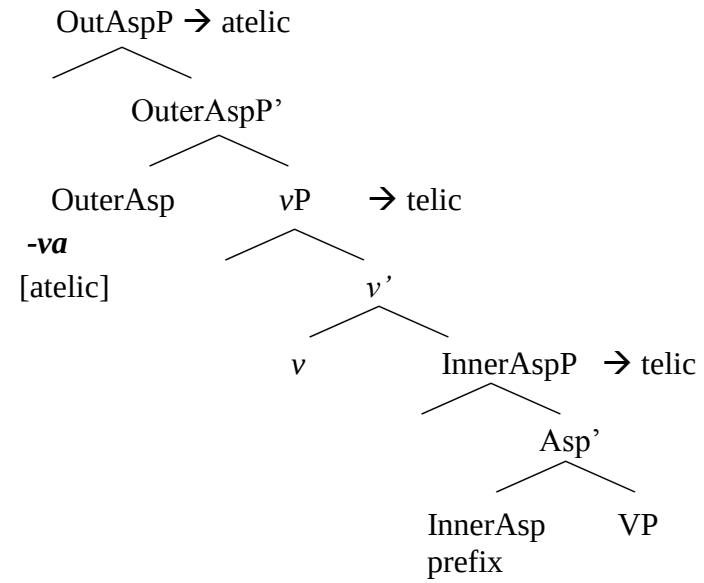
In addition to the acquisition of a shifting operation of the Russian perfective verbs into the future, L2 learners are further tested on how they acquire another property of perfective verbs with future tense; specifically, perfective verbs in Russian cannot be used in analytic future tenses, as in (3c). Out of 100 sentences used in experiment 2, 10 sentences contain infinitival forms of perfective verbs preceded by the future auxiliary *byt* 'will', as in (3c) above. The results of this part of experiment 2 show a high percentage of acceptance of ungrammatical sentences where perfective infinitives are incorrectly used in the analytic future tense. The percentage of incorrectly accepted sentences is as follows: 27% for the Advanced group, 57% for the High-Intermediate group, and 79% for the Low-Intermediate group. Nossalik claims that L2 learners incorrectly merge non-coerced TP [+future], which is licensed by the auxiliary '*byt*' 'will' onto a telic base, which is not possible in Russian.

The second part of experiment 2 targets the acquisition of imperfectives. As seen in the examples in (4), imperfectives in Russian (i) yield on-going and habitual interpretation; (ii) they can be used in the analytic future; (iii), and they can never have a shifted future tense reading. In this part of the experiment the participants are given 5 grammatical sentences that include imperfectives with an on-going reading, 5 grammatical sentences that include imperfectives with a habitual reading, 10 grammatical sentences where imperfectives are used in the analytic future, and 10 ungrammatical sentences with imperfectives that give rise to a future interpretation, as in (4a-d). The results of this part of the experiment show that L2 learners in all experimental groups successfully acquire on-going, habitual and analytic future interpretations of imperfectives. However, the participants in the Low-Intermediate group have problems with incorrectly assigning a shifting operation into the future for imperfectives. This problem is explained through the negative transfer from their L1 English.

In addition to testing the acquisition of perfective and imperfective verbs, L2 learners are also tested on the properties of SIs, which are formed in Russian from perfective telic verbs prefixed with lexical or telic prefixes (e.g., *pro-igrat'* 'PF-lose' vs. *pro-igr-yva-t'* 'PF-lose-SI-INF'). The SIs are grammatical in sentences that yield on-going and habitual interpretations. In order to test this property of SIs, the participants are given 10 grammatical sentences (i.e. 5 sentences with SIs that yield on-going interpretation and 5 sentences with SIs that yield habitual interpretation) that include SI counterparts of the present tense perfective verbs used in the first part of experiment 2.

Nossalik argues that the structure of SIs is quite complex. The complexity lies in the fact that first, L2 learners should compute the verb prefixed with a lexical or telic prefix as telic (i.e. L2 learners have to build a structure with InnerAspP). Then they must associate the suffix *–va* with OuterAspP, as in the example in (7) adapted from Nossalik (2009:183, example (7)).

(7)



In (7), a lexical or a telic prefix in SIs occupies the inner aspect projection, the SI suffix *-va* occupies the outer aspect projection.

The results of this part of the experiment show that due to the complexity of the structure of SIs, only the participants in the Advanced group behave in a native-like manner in assigning on-going and habitual interpretations to SIs in Russian.

In the last part of experiment 2, L2 learners are tested on how they acquire the SI forms. Recall from the discussion in chapter 2 that SIs can only be formed from telic verbal stems. In order to check whether L2 learners are aware of this restriction, Nossalik develops 10 non-existent SIs in Russian by attaching the suffix *-va* to an atelic verbal root (e.g., **čity-va-t'* 'read-SI-INF'). 5 of those non-existent SIs are included in sentences with an on-going interpretation, and 5 of those non-existent verbs are included in sentences with a habitual interpretation. The results of this part of the experiment show that even though L2 learners experience problems attaching *-va* to atelic stems, they eventually overcome this problem and attain native-like competence of SIs.

To summarize, Nossalik's study is probably the only comprehensive study that investigates the acquisition of lexical and grammatical aspect of L2 Russian within the generative framework. The design of the study reflects the complexity of the linguistic phenomenon under discussion (i.e. lexical and grammatical aspect in Russian). The study consists of two experiments. Experiment 1 targets the acquisition of lexical aspect in Russian, whereas experiment 2 targets the acquisition of grammatical aspect in Russian. [51]

[51]A comment should be made here about the number of sentences used as stimuli in Nossalik's study. As mentioned in the description above, the study includes 40 test sentences and 20 distractors for experiment 1, and 100 sentences for experiment 2. In experiment 1, each sentence out of 40 is shown to the participants twice. This means that in experiment 1, L2 learners are exposed to 100 stimuli. The second experiment includes 100 sentences, which makes the total number of sentences to be judged for grammaticality 200 sentences. In addition, at the beginning of the study the participants had to do a cloze test, on the basis of which they were placed into the three proficiency groups. A large number of stimuli used in the study may question the validity of the results. Although there is no specific

Since the participants in the Advanced group demonstrate near-native knowledge of the Russian aspectual system, the results of Nossalik's study provide evidence for the Full Transfer/ Full Access Hypothesis (Schwartz and Sprouse 1996), in that the telicity parameter can be reset from the L1 value to the L2 value (see the results of experiment 1 discussed above). However, the IL grammars of High-Intermediate and Low-Intermediate participants are characterized by "residual optionality", which means that in their IL grammars, they have two telicity-assigning mechanisms (i.e. English and Russian). This structural optionality is explained by Nossalik (2009:302) through unsuccessful processing rather than unsuccessful acquisition, where an 'old' structure is accessed prior to a newly acquired structure.

3.2.3 Slabakova (2005) and Nossalik (2009) on implicit versus explicit learning

The studies by Slabakova (2005) and Nossalik (2009) on the acquisition of lexical aspect by English speaking adult L2 learners of Russian discussed in sections 3.2.1 and 3.2.2 are based on the assumption that explicit metalinguistic instruction plays a limited (if any) role in L2 acquisition. In Nossalik (2009), it is argued that explicit pedagogical rules do not facilitate the process of L2 acquisition. For example, Nossalik (2009:247) states that metalinguistic rules are inaccurate and ineffective and therefore, "formal instructions play no crucial role in L2 acquisition of the Russian telicity-assigning mechanism". This position is partly shared by Slabakova (2005); however, Slabakova (2005) rightly asserts that, while discussing challenges of L2 learners in the acquisition of aspect in Russian, it is important to separate syntactic learning from idiosyncratic lexical learning. Slabakova states that what is difficult for L2 learners of

'standard' as to how many sentences a researcher can use to test his/her hypothesis, it should be taken into consideration that "judging sentences can be tiresome and judgement can become unreliable" (Mackey and Gass 2005:50); therefore, it is recommended to use no more than approximately 50 sentences for grammaticality judgement tasks (Mackey and Gass 2005:51). (However, see for example, Hawkins and Chan (1997) with 101 sentences to be judged for their grammaticality with a break in between the two parts of the study.)

Russian is acquiring idiosyncratic morphemes (i.e. prefixes) that mark telicity, and what is not difficult is acquiring the syntactic mechanism related to telicity in Russian.

It should be noted here that neither Slabakova (2005) nor Nossalik (2009) reference any pedagogical literature on how aspectual properties are introduced in today's L2 Russian classrooms when they argue for the ineffectiveness of pedagogical rules. In Slabakova (2005) and Nossalik (2009), telicity is equated with perfectivity although for different reasons. Slabakova makes this assumption in order to account for a general tendency that exists in Russian where prefixed perfective verbs are indeed telic and perfectivizing prefixes indeed function as telicity markers (Slabakova 2005:66). However, she also refers to Borik (2006), who argues that perfectivity and telicity are two separate linguistic constructs. In relation to telic prefixes, Slabakova (2005) states that they have a status of inner ('internal') rather than outer ('external') prefixes (Di Sciullo and Slabakova 2005).

In Nossalik (2009), perfectivity is also equated with telicity; specifically, Nossalik states that "perfectivity corresponds to a much better defined notion of telicity" because "the two terms (i.e. perfectivity and telicity) are labels for a syntactic structure that has inner aspect but lacks outer aspect" (Nossalik 2009:97). Nossalik's treatment of prefixes is somewhat controversial as she disagrees with the division of the prefixes into lexical and superlexical (Nossalik 2009:126) and treats the delimitative prefix *po-* and repetitive prefix *pere-* as *v*P internal contrary to Ramchand (2004), Svenonius (2004), Slabakova (2005), and Borik (2006). If perfectivity is equated with telicity in Slabakova (2005) and Nosslik (2009) for the different reasons mentioned above, then there are no grounds to suggest that metalinguistic knowledge contradicts the implicit knowledge that L2 learners develop about Russian aspect. In fact, implicit knowledge can be reinforced by pedagogical instructions that state that perfective verbs express

completion.[52] For example, in LeFleming and Kay (2003), a textbook of colloquial Russian, it is explained that perfective aspect (i.e. viewpoint aspect) emphasises completion or result, and this result may refer to a single action, as in (7a, b) or to a series of actions, each one completed before the next one starts, as in (8) (LeFleming and Kay 2003:37):

(7) a. On končil rabot-u
he finished.PF work-ACC
'He finished his work.'

b. Vy dolžny pro-čitat' et-u knig-u segodnja
you must PF-read this-ACC book-ACC today
'You must finish reading this book today.'

(8) Ya v-stanu primu duš-Ø i odenus'
I PF-get.up take shower-ACC and dress
'I will get up, take a shower and get dressed.'

It should be noted here that the issue of how explicit knowledge and implicit knowledge are interrelated in the IL grammars of L2 learners is far from being settled in the non-generative as well as the generative research in SLA (Ellis 2005, Whong et al. 2013). The evidence provided by research is not conclusive so as to argue for the general ineffectiveness of pedagogical instructions in the process of L2 acquisition. More research is needed to understand the relationship between explicit and implicit knowledge that might include among other things observations of pedagogical practices and analysis of the pedagogical literature as well as the

[52] In addition to the positive evidence provided by a language instructor and other types of input, L2 learners get access to (e.g., films, CDs, guest speakers, etc.), L2 learners are also provided with negative evidence when L2 learners are explicitly told of what is not possible in a language. As early as 1987, White stated that the process of L2 acquisition is not uniform and while some L2 learners make use of positive evidence, some may benefit from negative evidence while constructing their L2 grammars. Specifically, White (1987:242) stated that "[m]any L2 learners do get negative evidence in the language classroom, evidence that may trigger grammar change, if they take note of it."

general effect pedagogical practice might have (or not) on the acquisition of implicit knowledge (for such a study see Rothman 2008).

In addition, if the target of generative SLA is the acquisition of implicit knowledge, the participants of such empirical studies should include instructed learners as well as learners who acquire their L2s in naturalistic settings. There is a general belief that L2 learners who acquired L2 in naturalistic settings represent an underinvestigated pool of participants in both non-generative and generative research. To the best of my knowledge, the only study that investigates such L2 learners within the generative paradigm is a case study by Ioup et al. (1994).[53] The majority of learners who are usually recruited by the SLA researchers are instructed learners. For example, in Nossalik (2009), only 6 participants out of 41 are claimed to have learned L2 Russian in a naturalistic setting; unfortunately, it was not clear whether or not they were placed in the Advanced group of participants, who, as the study has shown, demonstrate near-native knowledge of L2 Russian aspect. Needless to say, further research is needed to target the relationship between explicit and implicit knowledge in the IL grammars of L2 learners before any conclusion can be reached about the (in)effectiveness of pedagogical instruction in the L2 classroom.

3.3 Acquisition of L2 case

The purpose of this section is to present an overview of some of the studies that target the acquisition of case by L2 learners. Section 3.3.1 provides a description of a case study by Lardiere (1998) that investigates the acquisition of pronominal case and tense by an L2 learner of English rather than L2 Russian. The case study is reviewed in this section because its findings emphasize the importance of treating the process of acquisition of abstract functional categories

[53] For non-generative studies that target uninstructed learners, see for example Schmidt (1983).

(e.g., Tense) separately from the rate of suppliance of overt morphological realization in the production data of an L2 learner. In Lardiere (1998), it is claimed that the lack of morphology should not be used as evidence to argue for the lack of abstract functional categories and/or feature underspecification. This important conclusion made by Lardiere (1998) in her case study is taken as one of the research hypotheses for the empirical study discussed in this dissertation (see chapter 4 where the theoretical assumptions and research hypotheses are discussed).

Overall, there is a lack of empirical studies developed within the generative framework that investigate the acquisition of case by L2 learners of Russian (on this issue see also Peirce 2013). Thus, in order to understand how L2 learners of Russian acquire case, in the absence of such studies, in section 3.3.2, I outline some findings on what is known about the acquisition of case by L1 learners of Russian. In addition, in section 3.3.3, I briefly review the two non-generative studies that focus on the acquisition of case by L2 learners. The studies on the acquisition of case presented in this section serve as a starting point for the empirical study that investigates the acquisition of aspect and case by L2 learners of Russian discussed in this dissertation.

3.3.1 Lardiere (1998)

Lardiere (1998) is a case study that investigates the acquisition of pronominal Nominative and Accusative case by Patty, an L2 learner of English. The goal of the study is to provide empirical evidence that lack of morphological inflections in production does not mean lack of functional categories or their features in the IL grammars of L2 learners. Specifically, the failure to supply the past tense morphology in obligatory contexts is not a valid indicator of the lack of the underlying representation associated with the functional projection of Tense and its

feature specifications. It is argued that the more reliable evidence would be the correct use of the pronominal case by an L2 learner. Lardiere's argument is based on assumptions developed in the Minimalist Program, according to which features that check Nominative and Accusative case, appear on the T head and the little *v* head, respectively.[54] Thus, if an L2 learner supplies the correct pronominal case (i.e. Nominative and Accusative), then this can be used as evidence that the functional projection of Tense and features associated with it (e.g., [+finite], [+past], [uCase]) are present in the syntax.

The participant in Lardiere's longitudinal case study, Patty, is a native speaker of two Chinese languages (i.e. Hokkien and Mandarin). She studied ESL when she immigrated to the United States at the age of 22, and she has a Master's degree in accounting from a US university. The data for the case study were collected in three recordings with eight and a half years between the first recording and the subsequent two recordings. The first recording took place when Patty was 32; at that time, she had been living in the USA for 10 years. When the second and third recordings took place eight and a half years later, Patty was completely immersed in the English-speaking environment; she was married to an American and had a senior management job with a US company.

The data in the three recordings demonstrate that Patty's production of past tense morphology during the first, second and third recordings was the same; specifically, Patty supplied obligatory past tense morphology at a low rate of 34%. Moreover, Patty's rate of suppliance of past tense morphology in obligatory contexts remained unchanged over the period of eight and a half years despite massive exposure to the target language.

Lardiere (1998) argues that one way to account for the lack of past tense morphology in obligatory contexts in Patty's production data is to suggest that the IL grammar of this L2 learner

[54] For a reassessment of this proposal, see footnote 40.

lacks the functional projection of Tense or alternatively, if the projection is present, it is underspecified for features. This interpretation would be in line with the Weak Continuity Hypothesis (see also the Minimal Trees Hypothesis, Vainikka and Young-Scholten 1994), according to which only lexical categories are available to L2 learners while functional categories are not accessible to L2 learners or are underspecified for features.[55] If this hypothesis is applied to the analysis of Patty's IL, then the prediction would be that Patty's production data should lack the adequate pronominal case morphology because if the functional projection of Tense is underspecified for case features, then Patty's production data should show errors with pronominal case. However, this is not what the data show. The data demonstrate that Patty's use of pronominal case in obligatory contexts is absolutely perfect. Patty supplied the correct pronouns at the rate of 100%. Lardiere states that although the past tense morphology is supplied at a very low rate of 34%, Nominative and Accusative pronominal case is supplied at a very high rate of 100%. Based on this evidence, she concludes that the abstract category of Tense that is specified for finiteness is indeed present in the syntax of the L2 learner.

Lardiere (1998) explains that the lack of past tense morphology is due to the problem of mapping the syntactic structure to the morphological spell-out, and that this mapping operation is outside of the syntax proper domain. The pronominal case was chosen in this study because of the simplicity of pronominal case marking in English (in fact, as discussed in chapter 2, pronominal case marking is the only instantiation of morphological case in English), which therefore reduces the effect of the mapping problem. Lardiere predicts that the outcomes of the

[55] According to Vainikka and Young-Scholten (1994), L2 learners start building the extended verbal phrase gradually. First, they start with the bare VP without any functional projections; second, the single function projection (e.g., Agreement) is present in their IL grammars but it is unspecified for features; third, the features of the functional projection of Agreement are specified; finally, the extended structure is built including the Complementizer Phrase (CP).

study might be quite different for the languages that have very complicated case marking systems, including languages with inherent lexical case.

3.3.2 The acquisition of case by L1 learners of Russian

The focus of this dissertation is on the acquisition of aspect and case by adult L2 learners of Russian; however, considering the lack of empirical studies on the acquisition of the Russian case system by adult L2 learners, this section outlines the research findings of the empirical studies by Gvozdev (1961, as cited in Polinsky 2007), Babyonyshev (1993), and Schütze (1995) on the acquisition of case by L1 learners.

In a comprehensive survey article on the uninterrupted and interrupted acquisition of Russian, Polinsky (2007) cites the following two studies that investigate the acquisition of case in Russian: Gvozdev (1961) and Schütze (1995).[56] In his pioneering study, Gvozdev (1961, as cited in Polinsky 2007:165) shows that the case forms are typically acquired by the age of 2; however, the full acquisition of the case system takes place by the age of 6 with the following order of acquisition:

(9) Nominative > Accusative/ Genitive > Dative/ Locative > Instrumental

The data presented in Schütze (1995) demonstrate almost error-free use of Nominative case and Accusative case at the rate of 93%, whereas other case forms cause more errors. Thus, the findings of Schütze (1995) are in line with the proposed order of acquisition of the Russian case system by L1 learners presented in (9).

[56] According to Polinsky (2007:157), uninterrupted acquisition "results in complete, full native speaker competency". Interrupted acquisition usually takes place in childhood with a speaker switching to a more dominant language and typically results in incomplete language acquisition.

Babyonyshev's (1993) study investigates the acquisition of case by two monolingual Russian children. Children's production data were recorded during a one-hour session once a week for six months. In total, there were 26 sessions for the first child, who started the experiment at the age of 2;7, and 19 sessions for the second child, who started the experiment at the age of 1;6. The sessions were recorded and transcribed. The main research question raised in the study is whether the early grammars of children are caseless, as argued by the proponents of the lexical-thematic analysis of early grammars (see e.g., Radford 1990). If it is assumed that early grammars are caseless, then Nominative case, which is a default case in Russian, should appear on all DPs. Such use of Nominative case is not found in the data. Although it is true that the participants use Nominative case more than any other case, this is explained by the fact that the children use DPs in the structural positions that require Nominative case assignment more often than in any other position. In fact, the data show that the percentage of the incorrect use of Nominative was quite low (i.e. at the rate of 8%).

Babyonyshev's (1993) study also shows that case marking in early children's grammars is not random and unconstrained. It is true that the appearance of structural Accusative case is less frequent in the data than the appearance of Nominative case; however, when structural Accusative case is used, it is used correctly (i.e. at the rate of 90%). In comparison, the rate of lexical Accusative case (i.e. lexical Accusative case assigned by prepositions) is rather low in the data (i.e. 62%), which is slightly more than at a chance level. The participants of the study started using lexical Accusative case later than structural Accusative case, and it was infrequent in the data. This is explained by the idiosyncrasies of lexical case assignment that need to be memorized lexical item by lexical item.

The study provides evidence to support the claim that early grammars of L1 learners are not caseless; in fact, L1 learners start showing appropriate use of case in Russian at an early age. This means that the grammars of L1 learners are subject to the Case Filter. This also means that early grammars have functional categories associated with case, as well as the case assigning mechanism discussed in chapter 2. In addition to showing that early grammars are not caseless, Babyonyshev's (1993) study presents the order of acquisition of different cases in Russian, which is in line with the order of acquisition presented in (9). In this order of acquisition, the acquisition of structural case (i.e. Nominative and Accusative) precedes the acquisition of non-structural (i.e. inherent and lexical) case.

3.3.3 The acquisition of case by L2 learners of Russian

As mentioned in the introduction to section 3.3, there is a lack of empirical studies on the acquisition of case by English speaking adult learners of L2 Russian from a generative perspective. Therefore in this section, I present an overview of the two empirical studies on the acquisition of case by L2 learners of Russian that are developed and conducted within non-generative framework. These include Rubinstein (1995) and Kempe and MacWhinney (1998), and are used as a starting point for the investigation of the acquisition of case by L2 learners of Russian in this dissertation.

3.3.3.1 Rubinstein (1995): An example of a study developed within the morpheme studies framework

As seen from the order of acquisition in (9) repeated here as (10), Accusative case is the second case to be acquired after Nominative case by L1 learners of Russian with Instrumental case being the last one in the order of acquisition.

(10) Nominative > Accusative/ Genitive > Dative/ Locative > Instrumental (Gvozdev 1967, as cited in Polinsky 2007:165)

This order of acquisition was partly confirmed in a study by Rubinstein (1995), one of the rare studies of the acquisition of case by L2 learners of Russian. The study was developed within the non-generative framework of morpheme studies (see e.g., Hyltenstam 1977). The purpose of the study is to determine the order of acquisition of the Russian case system by adult L2 learners. The participants of the study were 136 adult American learners of L2 Russian registered in the Basic Russian course at the Defense Language Institute in the United States. The data were collected through structured oral interviews consisting of 50 questions designed to elicit different cases in Russian. The results of the study demonstrate that adult L2 learners of Russian acquire the Russian case system in the following order: (i) Prepositional (i.e. Locative) case/ Accusative case; (ii) Genitive case/ Instrumental case; (iii) Dative case.[57]

This order of acquisition differs from the order of acquisition found in L1 studies in (9). L1 learners have more problems with Instrumental and Locative cases than adult L2 learners. Furthermore, for children, Dative case is acquired after Accusative and Genitive, whereas for

[57] The acquisition of Nominative case is not considered in the study. Nominative case is considered to be 'dictionary' case. When new words are introduced in the language classroom, they are usually introduced in the Nominative case.

adult L2 learners Dative case is the last case to be acquired in the order of acquisition. Rubinstein (1995) explains the acquisition order of the Russian case system by adult L2 learners through morphological and semantic simplicity, order of presentation in the classroom, external and internal frequencies and transfer from L1.

An important finding from the studies on the acquisition of case by L1 and L2 learners is that Accusative case seems to be one of the first cases to be acquired by L1 and adult L2 learners of Russian, whereas the acquisition of inherent cases (e.g., Dative and Instrumental) appears to be more challenging for language learners.

3.3.3.2 Acquisition of case by L2 learners of Russian: An example of a study developed within connectionism

One of the studies that investigates the acquisition of Nominative and Accusative case in Russian by L2 learners is the study by Kempe and MacWhinney (1998). This study is couched within the theoretical framework of connectionism, a theory that abandons rules and emphasizes the role of input and associative learning. Within this framework, L1 and L2 learning are understood as the process of strengthening associations between co-occurring elements in the language. In Kempe and MacWhinney (1998), it is argued that despite the complexity of the case paradigm in Russian, Russian exhibits cues of high validity (i.e. in Russian, the associations of inflectional morphemes that mark Nominative case and Accusative case with the thematic functions of nouns as agents or themes/ patients is much stronger than in German, which is also a target language in this cross-linguistic study). The strength of association of a morpheme and its function in relation to the case paradigm depends on how a case system of a specific language is related to animacy, number and gender. Specifically, it is stated that in Russian, neutralization of

Nominative/ Accusative distinction occurs mainly in inanimate nouns and in a limited set of end-palatalized feminine nouns. The corpus analysis shows that only 5% of the sentences contain two inanimate nouns; all other sentences in the corpus contain animate nouns, thus providing high value cues for L2 learners as to the function of a noun as an agent or a theme/ patient (Kempe and MacWhinney 1998:552). As predicted by the theoretical framework of the study, 22 English speaking L2 learners of Russian outperformed 22 English speaking L2 learners of German in using case marking as a cue to agenthood in sentences with non-canonical word order (e.g., OVS word order). Based on the results of the study, Kempe and MacWhinney (1998) conclude that the strength of individual cues has a stronger effect on learning than the complexity of a paradigm and that associative learning represents a general learning mechanism for L2 learners.

3.4 Chapter summary

Chapter 3 discusses the main theoretical assumptions made in the generative literature about the process of L2 acquisition. Specifically, I discuss the role of UG in the process of L2 acquisition and the three major hypotheses that account for the variability of IL grammars of L2 learners. The three hypotheses agree that UG guides L2 learners in the process of L2 acquisition; however, the hypotheses differ in the degree of accessibility of UG. The MSIH and the Feature Re-assembly Hypothesis believe in the accessibility and acquisition of uninterpretable features by adult L2 learners, whereas the representational deficit approach argues against it.

Since the focus of this dissertation is the acquisition of aspect and case by adult L2 learners of Russian, in this chapter, I further discussed the relevant empirical studies on the acquisition of aspect and case. The findings of the studies show that in their acquisition of lexical aspect (i.e. the interpretable feature [telic]), adult L2 learners of Russian attain native-like

proficiency. Due to the lack of empirical studies on the acquisition of the Russian case system by adult L2 learners conducted within the generative framework, this chapter also presents some findings that are related to the acquisition of case by L1 learners conducted within both generative and non-generative frameworks, as well as studies on the acquisition of L2 case in Russian conducted within the non-generative framework. The findings of the studies all seem to conclude that structural cases (i.e. Nominative and Accusative) are acquired before lexical and inherent cases (i.e. Genitive, Dative, Instrumental).

The theoretical assumptions as well as the findings of the empirical research presented in chapter 3 are taken as a theoretical foundation, on the basis of which I develop the research hypotheses for the study on the acquisition of aspect and case by L2 learners of Russian. These hypotheses are presented in the next chapter.

Chapter 4: Description of the Experiment

As mentioned in chapter 1, the proposed study aims to contribute to the discussion on L2 morphosyntactic feature acquisition by focusing on the acquisition of aspect and case by adult English speaking L2 learners of Russian, and, in particular, on the acquisition of the interpretable features [telic] and the uninterpretable feature [uCase]. This chapter provides a description of the empirical study designed to test the acquisition of these features, and it is structured as follows. Section 4.1 highlights the theoretical assumptions and research hypotheses proposed for the empirical study. These assumptions and hypotheses are proposed within the framework of current approaches to aspect and case in generative grammar, on the one hand, and generative approaches to L2 acquisition, on the other, as discussed in chapter 2 and chapter 3, respectively. Section 4.2 provides the background information about the participants in the control and experimental groups. Section 4.3 describes a questionnaire that was filled in by the participants for the purpose of collecting relevant background information. In addition, this section also describes the cloze test that was used as a tool to measure overall language proficiency of the participants. Section 4.4 provides an example of sentences with Condition 1 and Condition 2 verbs included in the experimental tasks. Sections 4.5, 4.6 and 4.7 respectively, describe the Logical Entailment (LE) task, the Grammaticality Judgement (GJ) task, and the Elicited Production (EP) tasks used in the study. Section 4.8 concludes the chapter.

4.1 Theoretical assumptions

This section summarizes the theoretical assumptions on L2 acquisition made in this dissertation.

Theoretical assumption 1: Following the discussion of different hypotheses on feature accessibility by L2 learners proposed by White (2008), Lardiere (2008, 2009), and Hawkins et al. (2008), I assume that the universal semantic feature [telic], and the uninterpretable feature [uCase] on nominal arguments, which, as a universal, is also present in the L2 learners' L1, are accessible to adult L2 learners of Russian.

Theoretical assumption 2: L2 learners of Russian start building their IL grammars based on the Subset Principle discussed in Wexler and Manzini (1987) and Slabakova (2002). In particular, it is predicted that, similar to L1 learners, L2 learners start building their grammars with the most restrictive associations or one-to-one association, where one lexical aspectual feature is always associated with one morpheme. It is further assumed that L2 learners of Russian first associate a perfective prefix with telicity. Gradually, when they are exposed to more data, they reconsider their initial hypothesis in order to account for the cases when a perfectivity marker (e.g., the superlexical prefix *po*-) is not used as a telicity marker.

Theoretical assumption 3: The Missing Surface Inflection Hypothesis (MSIH) (Prévost and White 2000, White 2008) explains the lack of correct morphology in the production data of L2 learners as a mapping problem at the interface level (i.e. from syntax to PF) rather than as an impairment of purely syntactic knowledge.

Based on these theoretical assumptions, I develop the research hypotheses discussed in section 4.1.1.

4.1.1 Research Hypotheses

This section introduces the research hypotheses proposed in this dissertation.

Hypothesis 1: Hypothesis 1 focuses on the acquisition of the telicity feature. Taking into consideration the theoretical assumption about the accessibility of the interpretable universal semantic feature [telic], which was experimentally tested by Slabakova (2005) and Nossalik (2009), I assume that L2 learners will have no difficulties in distinguishing between telic and atelic events in Russian despite the fact that in English, telicity is realized on the quantized DP object of a dynamic verb, and in Russian, on a telic or lexical verbal prefix that merges with the base form of a verb whose event structure is compositionally determined. Since telic and atelic events give rise to different logical inferences, as discussed in chapter 2, section 2.2.4.1, hypothesis 1 predicts that L2 learners of Russian will differentiate between telic and atelic events even in those cases where the superlexical prefix (e.g., *po*-) is used as a marker of perfectivity, but not of telicity.

Following the Subset Principle by Wexler and Manzini (1987), and Slabakova (2002), hypothesis 1a predicts that L2 learners will perform better on the experimental sentences that include verbs where the features [telic] and [perfective] have the same value, as in [+telic] and [+perfective] (e.g., *vy-igrat'* 'PF-win') than on the sentences where the features [telic] and [perfective] have different values, as in [-telic] and [+perfective] (e.g., *po-ljubovat'sja* 'PF-admire).

Hypothesis 2: Hypothesis 2 focuses on the acquisition of the case feature. Taking into consideration the theoretical assumption concerning accessibility of the uninterpretable feature [uCase], as a feature present both in L1 and L2, hypothesis 2 predicts that L2 learners will perform better on structural case assignment than on lexical case assignment. This is because structural Accusative case is available both in English and in Russian but lexical case is not available in English (see chapter 2, sections 2.3.3 and 2.3.4). Moreover, the discussion in chapter

2 shows that lexical case is characterized as idiosyncratic and unpredictable and as such, needs to be memorized by L2 learners on a case-by-case basis. This fact predicts that L2 learners might have difficulties with lexical case assignment.

Hypothesis 3: Hypothesis 3 focuses on the acquisition of the combination of case and telicity features. In terms of the acquisition of the cluster of features [+telic, +perfective] and [uCase: ACC], on the one hand, and [-telic, +perfective] and [uCase: lexical], on the other, hypothesis 3 predicts that L2 learners will show better performance on the first cluster of features than on the second one. The Feature Re-assembly Hypothesis (Lardiere 2007, 2008) predicts that the acquisition of the cluster of features starts with the features available in the L2 learners' L1. Since the cluster of features [+telic, +perfective] and [uCase: ACC] is accessible through the learners' L1, L2 learners will not have any difficulties with this cluster of features.

Hypothesis 4: Hypothesis 4 focuses on the asymmetry between production and comprehension. Hypothesis 4 predicts that L2 learners will perform better on a grammaticality judgement task rather than on a production task, where they have to supply the morphological marker for structural Accusative case or for lexical case. Recall that according to the MSIH (White 2008), the failure to supply the correct morphological inflection is not equated with deficiency of purely syntactic knowledge (i.e. knowledge of case assigning mechanisms) of L2 learners.

4.1.2 Variables controlled for in the study

Before presenting a description of the study developed to test the research hypotheses, I outline some differences between the study presented in this dissertation, on the one hand, and the studies by Slabakova (2005) and Nossalik (2009), on the other.

As discussed in chapter 3, Slabakova (2005) and Nossalik (2009) investigate the acquisition of lexical aspect by adult English speaking L2 learners of Russian. Recall also from the discussion presented in chapter 2 that in English and in Russian, telicity is compositionally determined. In English, the telicity of a predicate depends on a temporal feature of a verb (i.e. stative vs. dynamic) and the properties of its DP direct object (i.e. quantized vs. non-quantized). In Russian, the status of a DP object as quantized or non-quantized is irrelevant to the telicity of a predicate. What matters for telicity in Russian is the presence of a telic prefix or lexical prefix that functions as a telicity marker. In order to capture the difference in telicity realization, both Slabakova (2005) and Nossalik (2009) control for the status of a DP object as quantized or non-quantized. To illustrate, in Slabakova (2005), each imperfective atelic verb and its perfective telic counterpart is combined with a DP argument that is either non-quantized (i.e. mass and bare plural nouns), or quantized (i.e. countable and singular objects and objects modified by overt demonstrative pronoun or a modifier). This is illustrated by the examples in (1) and (2) adapted from Slabakova (2005:69-70).

(1) a. Daša jela byterbrod
Daša ate.IMPF sandwich
Intended meaning: 'Dasha was sandwich-eating.'

b. Daša s-jela byterbrod
Dasa PF-ate sandwich
'Dasha ate a sandwich.'

(2) a. Maša vezla detej domoj
Maša drove.IMPF children home
'Masha was driving children towards their home.'

b. Maša pri-vezla detej domoj
Maša PF-drove children home
'Masha brought children home.'

In (1a), the predicate is atelic, whereas in (1b), the predicate is telic. The sentence in (1a) has a singular count noun as a DP object. In (1b), telicity is marked on the telic prefix *s-*. The sentence in (2b) has a bare plural noun as a DP object. In (2a), the predicate is atelic, whereas in (2b) the predicate is telic despite the presence of a non-quantized DP object. In (2b), telicity is marked by the telic prefix *pri-*. Slabakova (2005) controls for the status of a DP object in order to show that when differentiating between atelic and telic events, L2 learners pay attention to the perfective prefix that signals telicity rather than to the status of a DP object as quantized or non-quantized.

It should be noted, however, that for the purpose of the present study, the status of a DP object as quantized or non-quantized is not controlled for. This is because, based on the empirical evidence provided by Slabakova (2005) and Nossalik (2009), I assume that the parameter of aspect can be reset and that in relation to aspect, the IL grammars of the advanced and intermediate L2 learners of Russian are subject to the same constraints as grammars of the native speakers of Russian. Specifically, when computing the value of lexical aspect (i.e. telic vs. atelic), similar to native speakers of Russian, advanced and intermediate L2 learners pay attention to the verb but not to the object. In Slabakova (2005) and Nossalik (2009), even beginner learners of L2 Russian demonstrate emerging knowledge of the Russian lexical aspect system.

In this study, I control for the following variables. Variable 1 has to do with the difference between telic (i.e. lexical and telic) prefixes, on the one hand, and superlexical prefixes, on the other. Controlling for this variable is important in order to empirically test Hypothesis 1. More specifically, it is important to control for this variable in order to identify whether L2 learners can differentiate between telic and atelic events in situations (i) where the

base form of a verb whose event structure is compositionally determined merges with a telic or a lexical prefix that marks telicity; or situation (ii) where the base form of a verb whose event structure is not compositionally determined merges with a superlexical prefix that functions only as a perfectivity marker but not a telicity marker. In this dissertation, verbs that satisfy scenario (i) are referred to as 'Condition 1' verbs and verbs that satisfy scenario (ii) are referred to 'Condition 2' verbs.

Variable 2 has to do with the difference between structural Accusative case versus lexical case assignment. Controlling for this variable is important in order to empirically test Hypotheses 2 and 3. Specifically, controlling for this variable helps identify which of the following combination of features would be acquired first: [+telic, +perfective] and [uCase: ACC], on the one hand, or [-telic, +perfective] and [uCase: lexical], on the other.

Samples of experimental sentences with Condition 1 and Condition 2 verbs are presented in section 4.1.3.

4.1.3 Condition 1 versus Condition 2 verbs

Examples (3) and (4) illustrate how the variables discussed in section 5.1.2 are controlled for.

(3) a. Futbolisty igrali igr-u dva časa/ *za dva časa.
soccer.players played.IMPF game-ACC two hours/ *in two hours
'The soccer players were playing the game for two hours/ *in two hours.'

b. Futbolisty vy-igrali igr-u za dva časa/ * dva časa.
soccer.players PF-played game-ACC in two hours/* two hours
'The soccer players won the game in two hours/ *for two hours.'

(4) a. Žukov komandoval polk-om 1-go Ukrainskogo fronta dva
Žukov commanded.IMPF division.INSTR 1-st Ukrainian front two

goda/ *za dva goda
years/ *in two years
'Žukov was commanding the division of the first Ukrainian front for two years/ * in two years.'

b. Žukov po-komandoval polk-om 1-go Ukrainskogo fronta dva goda/
Žukov PF-commanded division.INSTR 1-st Ukrainian front two years/

*za dva goda
*in two years
'Žukov was in command of the division of the first Ukrainian front for two years/ * in two years.'

In (3a, b), the base form *igrat'* 'to play' of the verb *igrali* 'played.IMPF' is a Condition 1 verb, whose event structure is compositionally determined. As a Condition 1 verb, it displays the following properties: (i) it merges with the lexical prefix *vy-* that changes the meaning of the verb from *igrat'* 'play' to *vy-igrat'* 'win'; (ii) it changes the lexical aspect of the predicate from atelic, as in (3a), to telic, as in (3b); and (iii) its direct DP object is marked with structural Accusative case.

In (4a, b), the base form *komandovat'* 'to command' of the verb *komandoval* 'commanded.IMPF' is a Condition 2 verb, whose event structure is not compositionally determined. As a Condition 2 verb, it displays the following properties: (i) it merges with the superlexical prefix *po-* that does not change the meaning of the verb *komandoval* 'commanded.IMPF'; (ii) the predicate stays atelic both in (4a) and (4b); and (iii) its DP object is assigned lexical (i.e. Instrumental) case.

4.2 Participants

There are 35 participants in the study. 29 participants are included in the experimental group and 6 participants are included in the control group. Below I discuss each group in turn.

4.2.1 Participants in the control group

The participants in the control group are native speakers (NSs) of Russian who have been exposed to Russian from birth. On average, they have lived for more than 35 years in Russian speaking communities in Russia, Ukraine and Bashkiria, an autonomous republic of the Russian Federation. The age of the participants in the control group ranges from 21 to 79. In addition to Russian, they speak other languages (e.g., English, German, Ukrainian, Hebrew, and Bashkir). Table 7 presents the relevant information about the participants included in the control group.

Table 7: Information about the participants in the control group

No. of participants in the control group	Age	Period of time (on average) spent in Russia/ or in Russian speaking areas in Ukraine and Bashkiria	Other L2s[58]
6	mean: 37.5 range: 21-79	35 years range: 14-70 years	English (different levels of language proficiency), German, Ukrainian, Hebrew, Bashkir

[58]Following Ortega (2009:5), L2 is used here as a cover term for any language (L2, L3, etc.) that has been learned by a participant after the acquisition of L1.

The participants in the control group were recruited through personal contacts in Kiev (Ukraine), and Toronto (Ontario), as well as through electronic announcements made at several universities in Canada and the United States. The participants were tested in Kiev (Ukraine), Toronto (Ontario), and Middlebury College (VT). Each participant was paid $20.00 for their participation in the study.

In order to address the concerns related to the competence of the NSs of Russian included in the control group, specifically, their knowledge of other languages in addition to Russian, and the possibility of language attrition for those who currently reside in Canada and the USA, the following should be taken into consideration:

(i) The participants in the control group have been exposed to Russian as their L1 from birth. On average, they have spent 35 years living in the Russian speaking areas in Ukraine and the Russian Federation. According to Ortega (2009:4), who summarizes what is known about L1 acquisition, "the process of acquiring language is essentially completed by all healthy children by the age [of four], in terms of most abstract syntax, and by age five or six for most other 'basics' of language". Bylund (2009:696) argues that "there is a point of life [12 years of age] at which the susceptibility to attrition alters"; in other words, after this age, the person is less susceptible to L1 attrition in a situation with limited L1 contact. Based on these arguments, I conclude that the participants in the control group possess the competence of NSs of Russian and are not highly susceptible to language attrition and therefore, can be used as controls in the experimental study.

(ii) Following Rothman and Treffers-Daller (2014) as well as Scontras, Fuchs and Polinsky (2015), I take the position, that the majority of speakers in today's world are by- and multi-lingual (on the multilingual nature of today's world, see also the Linguistic Society of America

2012) and they fail to meet the criteria of an idealized monolingual language user. Therefore, logistically speaking, it is difficult, to find a purely monolingual speaker who has never been exposed to any language and/ or dialect except his/ her L1.

4.2.2 Participants in the experimental group

The experimental group consists of 29 English learners of L2 Russian. The participants in the experimental group were recruited through a language school in Kiev, Ukraine, the Departments of Slavic Languages at universities in Canada and the USA, and through personal contacts. They were each paid $20.00 for their participation in the study. The participants in the experimental group are native speakers of English from North America (i.e. Canada and the USA). The average age of the participants in the experimental group is 24.2, their age ranging from 19 to 66 years old. On average, their first exposure to L2 Russian is at 17.4 years and the age of their first exposure to Russian ranges from 8 to 22 years (see comment below about the participant whose first exposure to Russian was at the age of 8). Although the participants in the experimental group have identified knowledge of other languages in addition to Russian (e.g., one participant identifies Polish as her additional language), the important fact is that their predominant language is English. The information about the participants included in the experimental group is presented in Table 8.

Table 8: Information about the participants in the experimental group

No. of participants in the experimental group	Age range of participants	Age of the 1st exposure to Russian	Time spent in a Russian speaking country	Other L2s (see footnote 57)
29	Mean: 24.2 Range: 19 - 66	Mean: 17.4 Range: (8-22) (please see the comment below)	Mean: 6.3 months Range: from 2 weeks to 5 years	German, Polish, Hebrew, Spanish, French, Mandarin, Cantonese, Italian, Macedonian, French, ASL, Arabic, Yiddish

It should be noted that originally the experimental group included 31 participants. During testing, two participants were identified as heritage speakers (HS) of Russian and therefore were excluded from the study. According to Benmamoun, Montrul, and Polinsky (2013:129), for a HS, his/ her heritage language should be the first one in the order of acquisition but whose acquisition has not been completed because of a shift to a more dominant language.

According to Gass and Selinker (2008:23-24), HSs and L2 learners constitute two different types of bi-/ multi-lingual speakers. They argue that due to the early exposure to a heritage language, HSs possess "a slightly different knowledge base" (Gass and Selinker 2008:24) and therefore should be excluded from studies on L2 acquisition. The two participants who were excluded from the study had an early exposure to Russian (i.e. they were exposed to Russian from birth), so they were considered HSs.

As seen from Table 8, there is one more participant in the experimental group who had early exposure to Russian, specifically starting with the age of 8. However, he fits the profile of an L2 learner rather than an HS of Russian because he identifies English as his L1 and he likely

had completed L1 acquisition before his first exposure to Russian (see Ortega 2009 on the timeline for the acquisition of L1); therefore, in this study, he is identified as an L2 learner and is included in the experimental group.

4.3 Questionnaire and cloze test

At the beginning of the study, the participants were asked to fill in a short questionnaire. The purpose of the questionnaire was to collect background information about the participants' age, any languages they speak, age of their first exposure to Russian, and time spent in a Russian-speaking country. A copy of the questionnaire is presented in Appendix A.

After completing the questionnaire, the participants were asked to do a cloze test in order to identify their level of language proficiency in Russian. Recall from chapter 3, section 3.2.1, footnote 43 that following Oller (1979), McNamara (2000:15) and Brown (2004:8) define a cloze test as an integrative test that claims to measure overall language proficiency of L2 learners. A cloze test is usually a reading passage that consists of 150 to 300 words in which every sixth or seventh word has been deleted and the test-taker is asked to supply the appropriate words. It is claimed that if L2 learners are capable of supplying the words, this can be used as evidence of their knowledge of vocabulary, grammar, discourse, reading skills, and learning strategies. In other words, the score of the cloze test is a reflection of the test-taker's overall language proficiency.

For the purpose of the present study, the participants were instructed to read a passage in Russian consisting of 240 words. The text titled "A Conversation with Mom" was taken and adapted for the purpose of the cloze test from a modern Russian novel by Marinina (2009). A copy of the cloze test used in the study is presented in Appendix B. The first paragraph of the

cloze test was presented to the participants without any omissions for the purpose of introducing them to the story. Starting with the second paragraph, every seventh word in the sentence was omitted. In total, there were 40 omissions. The participants were instructed to fill in the gaps by supplying grammatically appropriate words that meaningfully fit into the context of the reading passage. For each correct answer the participants were given one point and the final score was out of 40. Failure to supply the correct word or its correct grammatical form meant that no point was assigned. The performance of the participants in the control group on the cloze test was used as a cut-off point, according to which the participants in the experimental group were placed into the four proficiency groups (i.e. Beginners, Low-Intermediate, High-Intermediate and Advanced). Chapter 5, section 5.1 provides a description of the procedure of assigning the participants into the 4 proficiency groups based on the results of the cloze test.

4.4 Experimental tasks for Condition 1 and Condition 2 verbs

There are three test tasks that are used in the study: a Logical Entailment (LE) task, a Grammaticality Judgement (GJ) task and an Elicited Production (EP) task. Each task targets Condition 1 and Condition 2 verbs.[59] Recall from the discussion in chapter 4, section 4.1.3 that Condition 1 verbs have base forms whose event structure is compositionally determined. Imperfective base forms of Condition 1 verbs merge with lexical and telic prefixes that change their event structure from atelic to telic. Condition 1 verbs take internal DP arguments marked with structural Accusative case. This is illustrated here in (5):

[59] Each experimental task has different Condition 1 and Condition 2 verbs. The different verbs have been chosen in order to reduce the possibility of memorizing the correct verb forms and nominal forms by the participants of the study.

(5) a. Vanya čital knig-u tri časa/ * za tri časa
Vanya read.IMPF book-ACC three hours/ * in three hours
'Vanya was reading a/the book for three hours/ *in three hours.'

b. Vanya uže pro-čital knig-u za tri časa/ *
Vanya already PF-read book-ACC in three hours/

*tree časa
three hours
'Vanya has already read the book in three hours/ *for three hours.'

In (5a) the sentence is grammatical with the adverbial modification phrase *tri časa* 'for three hours'. The grammaticality of this example shows that the imperfective base form of the verb *čitat'* 'read' is atelic. However, when the telic prefix *pro-* is added to the imperfective base form of *čitat'* 'read', as in in (5b), it changes the lexical aspect of the predicate from atelic to telic. The grammaticality of the sentence in (5b) with the adverbial modification phrase *za tri časa* 'in three hours' and the ungrammaticality of this sentence with the adverbial modification phrase *tri časa* 'for three hours' demonstrate that the predicate is telic. As seen from the example in (5), the verb *čitat'* has a compositional event structure because its event structure is affected by the telic prefix *pro-*. In (5a, b), the verb *čitat* 'read' takes the DP argument *knig-u* 'book-ACC', which is marked with structural Accusative case.

Condition 2 verbs have base forms whose event structure is not compositionally determined. Imperfective base forms of Condition 2 verbs merge only with superlexical prefixes (e.g., *po-*) that do not change their event structure (i.e. Condition 2 verbs remain inherently atelic). Condition 2 verbs assign lexical case to their direct object. This is illustrated here in (6):

(6) a. Turisty ljubovalis' pejzaž-em dva časa/ * za dva časa
tourists admired.IMPF landscape-INSTR two hours/ * in two hours
'The tourists were admiring the landscape for two hours/ *in two hours.'

b. Turisty po-ljubovalis' pejzaž-em dva časa/ ? za dva časa
tourists PF-admired landscape-INSTR two hours/ ? in two hours

(i potom prodolžili svoj put')
(and then continued their journey)
'The tourists admired the landscape for two hours/ * in two hours (and then they continued their journey).

In (6a), the sentence is grammatical with the adverbial modification phrase *dva časa* 'for two hours'. The grammaticality of this example shows that the imperfective base form of the verb *ljubovat'sja* 'to admire' is atelic. When the superlexical prefix *po-* is added to the imperfective base form of the verb *ljubovat'sja* 'to admire', as in in (6b), it does not change the lexical aspect of the predicate. The grammaticality of the sentence in (6b) with the adverbial modification phrase *dva časa* 'for two hours' demonstrates that the predicate remains atelic. In (6a, b), the inherently atelic verb *ljubovat'sja* 'to admire' assigns lexical Instrumental case to its DP argument.

For some NSs of Russian, the predicate *po-ljubovat'sja pejzaž-em* 'PF-admire landscape-INSTR' is grammatical with the adverbial modification phrase *za dva časa* 'in two hours', hence the question mark in (6b). This is because according to Borik (2006:80), some atelic predicates in the past tense can have a weak inference of completion, that is "sentences in past tense often refer to what we understand as 'completed eventualities', irrespective of the telicity of properties of a predicate of a sentence". In order to show that the predicate *po-ljubovat'sja pejzaž-em* 'PF-admire landscape-INSTR' is inherently atelic despite its possible grammaticality with an 'in X time' phrase, I use the progressive test for telicity discussed in chapter 2, section 2.2.4.1. The progressive test shows that telic and atelic predicates have different logical inferences. Crucially, the progressive test shows that the progressive form of a telic predicate only denotes part of the

event, so asserting that the event has occurred cannot also entail that the event has been completed. Since atelic predicates only denote the process, it is possible to assert that the event has occurred and it has been completed. Consider examples (7) and (8):

(7) a. Turisty ljubovalis' pejzaž-em →
tourists admired.IMPF landscape-INSTR
'The tourists were admiring the landscape.'

b. Turisty uže po-ljubovalis' pejzaž-em
tourists already admired.IMPF landscape-INSTR
'The tourists have already admired the landscape.'

(8) a. Vanya čital knig-u ↛
Vanya read.IMPF book-ACC
'Vanya was reading a book.'

b. Vanya uže pro-čital knug-u
Vanya already PF-read book-ACC
'Vanya has already finished reading the book.'

The examples in (7) show that only the verbs with a non-compositional event structure (i.e. inherently atelic Condition 2 verbs), such as *ljubovat'sja* 'to admire' can license the logical inference from the progressive to the non-progressive tense. When the superlexical prefix *po-* is added to the base form of the inherently atelic verb *ljubovat'sja* 'to admire', it does not change its atelicity; it only adds perfectivity. The meaning of the superlexical prefix *po-* in this example is similar to the adverbial modification phrase 'for a while'. In contrast, the logical inference from the progressive to the non-progressive tense is not possible for Condition 1 verbs that have a compositional event structure, such as *čitat'* 'to read', as illustrated in (8).

The examples in (7) show that the base form of the verbs *ljubovat'sja* 'to admire' is inherently atelic and as such, its event structure is not affected by the addition of the superlexical

prefix *po*-, which adds perfectivity but does not change the lexical aspect of the verb. In contrast, as seen from the examples in (8), the event structure of the base form *čitat'* 'to read' is affected by the addition of the telic prefix *pro*- that changes its grammatical aspect from imperfective to perfective and its lexical aspect from atelic to telic.

4.5 Experimental tasks: Logical Entailment (LE) task

The purpose of the LE task is to test Hypothesis 1. Specifically, that L2 learners will (i) differentiate between telic and atelic events even in those cases when the superlexical prefix (e.g., *po*-) is used as a marker of perfectivity, but not of telicity; (ii) perform better on experimental sentences that include Condition 1 verbs, as these verbs have the less marked cluster of features with the same value (i.e. [+telic, +perfective]) as compared to the more marked cluster of features with opposite values (i.e. [-telic, +perfective]).

In order to test this hypothesis, the test sentences of the LE task include sentences with Condition 1 and Condition 2 verbs. Recall from the discussion in section 4.4 that base forms of Condition 1verbs have a compositional event structure, in that they merge with telic or lexical prefixes that change the lexical aspect of a predicate from atelic to telic. Condition 1 verbs also take DP objects marked with structural Accusative case. Base forms of Condition 2 verbs have a non-compositional event structure, in that they merge with superlexical prefixes (e.g., *po*-) that do not change the telicity of the predicate. Condition 2 verbs take DP objects marked with lexical Instrumental case.

In the LE task, the participants are given 14 pairs of sentences and 4 pairs of distractors. Out of the 14 pairs, 7 pairs of sentences include Condition 1 verbs and 7 pairs of sentences include Condition 2 verbs. 7 verbs included in the experimental sentences of the LE task are

Condition 1 verbs, as they (i) merge with telic or lexical prefixes and as such, can typically form a secondary imperfective (SI);[60] (ii) pass the adverbial modification test for telicity; and (iii) take DP objects marked with structural Accusative case.

7 verbs included in the experimental sentences of the LE task satisfy Condition 2, as they (i) merge with superlexical prefixes and as such, cannot typically form a SI; (ii) can pass the adverbial modification test and the progressive test for atelicity; and (iii) take DP objects marked with lexical case.

4.5.1 LE task for Condition 1 verbs

Condition 1 verbs included in the experimental sentences of the LE task are listed in Table 9.

[60] Recall from chapter 2, section 2.2.4.3 that perfective verbs prefixed with lexical or telic prefixes (i.e. Condition 1 verbs) typically form a SI, whereas perfective verbs prefixed with superlexical prefixes (i.e. Condition 2 verbs) do not. A SI test is used to distinguish telic and lexical prefixes, on the one hand, form superlexical prefixes, on the other.

Table 9: Condition 1 verbs included in the LE task

Telic and lexical prefixes	Base forms of the verbs whose event structure is compositionally determined	Prefixed perfective verbs	DP argument marked with structural Accusative case	Secondary imperfective (i.e. PF-root-SI-INF)
pere- (lexical)	*letet'* fly.IMPF	*pere-letet'* PF-fly 'fly.over'	*okean-Ø* ocean-ACC	*pere-let-a-t'* PF-fly-SI-INF
vy- (telic)	*myt'* wash.IMPF	*vy-myt'* PF-wash 'wash up'	*posud-u* dishes-ACC	*vy-my-va-t'* PF-wash-SI-INF
vy- (lexical)	*igrat'* play.IMPF	*vy-igrat'* PF-play 'win'	*matč-Ø* game-ACC	*vy-igr-yva-t'* PF-play-SI-INF
pri- (telic)	*gotovit'* cook.IMPF	*pri-gotovit'* PF-cook	*užin-Ø* dinner-ACC	*pri-gotavli-va-t'* PF-cook-SI-INF
s- (telic)	*delat'* do.IMPF	*s-delat'* PF- do	*domašny-ju* home-ACC rabot-u work-ACC	**s-del-yva-t'* PF-do-SI-INF
pro- (telic)	*čitat'* read.IMPF	*pro-čitat'* PF-read	*skazk-i* fairy.tales-ACC	*pro-čit-yva-t'* PF-read-SI-INF
pri- (lexical)	*stroit'* build.IMPF	*pri-stroit'* PF-build	*etaž-Ø* floor-ACC	*pri-srat-iva-t'* PF-build-SI-INF

The data presented in Table 9 show that the base forms of the verbs from column 2 can merge with perfective prefixes from column 1. The prefixed perfective verbs are presented in column 3 of Table 9. The prefix *pere-* in *pere-letet'* 'PF-fly' 'fly over', *vy-* in *vy-igrat'* 'PF-play' 'win' and *pri-* in *pri-stroit'* 'PF-build' 'build an additional (floor)' are referred to as lexical

because they add new lexical information to the verb they attach to. The prefixes *vy-* in *vy-myt'* 'PF-wash', *pri-* in *pri-gotovit'* 'PF-cook', *s-* in *s-delat'* 'PF-do', and *pro-* in *pro-čitat'* 'PF-read' are referred to as telic because they do not change the meaning of the verb they attach to. Following Matushansky (2002), Romanova (2004:255) states that lexical and telic prefixes can be identical and their interpretation (lexical vs. telic) depends on the verbal root or stem they attach to. This explains the status of the prefix *vy-*, which functions as a telic prefix in *vy-myt'* 'PF-wash' and as a lexical prefix in *vy-igrat'* 'PF-play' 'win', as well as the status of the prefix *pri-*, which functions as a telic prefix in *pri-gotovit'* 'PF-cook' and as a lexical prefix in *pri-stroit'* 'PF-build' 'build an additional (floor)'.

The data presented in column 5 of Table 9 show that the perfective verbs prefixed with telic or lexical prefixes can form SIs. Recall form the previous discussion in chapter 2, section 2.2.4.3, that only perfective verbs prefixed with telic or lexical prefixes can form a SI; this is formed by adding the suffix *-a, -va, -iva, or -yva* to a perfective stem. According to Richardson (2007), the possibility of a perfective verb to form a SI is used as a diagnostic to distinguish lexical and telic prefixes from superlexical ones. Since the verbs presented in Table 9 can form SIs, they are prefixed by telic or lexical prefixes. There is, however, one exception. The SI **s-del-yva-t* 'PF-do-SI-INF' is not attested in Modern Russian; however, as noted by Chatterjee (1989:55) and Forsyth (1970:41), the form is included in Dal's Explanatory Dictionary of the Living Great Russian of 1882. According to Forsyth (1970:41), the SI form **sdelyvat'* is not possible in Modern Russian because the prefixed verb lost its meaning, which originally was 'do and complete', and now it simply means 'PF.do'. Since a SI form was once attested in Russian, the perfective verb *s-delat'* 'PF-do' prefixed by *s-* shares the same properties with all other verbs in Table 9.

Another property of the telic and lexical prefixes listed in Table 9 is that they change the lexical aspect of the predicates they attach to from atelic to telic, as seen in (9) – (15).

(9) a. Samolet letel nad ocean-om dva časa/ *za dva časa
airplane flew.IMPF over ocean-INSTR two hours/ *in two hours
'The airplane was flying over the ocean for two hours/ *in two hours.' (atelic)

b. Samolet pere-letel ocean-Ø za dva časa/ * dva časa.
airplane PF-flew ocean-ACC in two hours/ two hours
'The airplane flew over the ocean in two hours/ *for two hours.' (telic)

(10) a. Deti myli posud-u pol časa/ *za pol časa
children washed.IMPF dishes-ACC half hour/ *in half časa
'The children were washing dishes for half an hour/ * in half an hour.' (atelic)

b. Deti vy-myli posud-u za pol časa/ *pol časa
children PF-washed dishes-ACC in half hour/ *half hour
'The children washed up the dishes in half an hour/ * for half an hour.' (telic)

(11) a. Futbolisty igrali igr-u dva časa/ *za dva časa.
players played.IMPF game-ACC two hours/ *in two hours
'The soccer players were playing the game for two hours/ *in two hours (atelic)

b. Futbolisty vy-igrali igr-u za dva časa/ * dva časa.
players PF-played game-ACC in two hours/* two hours
'The soccer players won the game in two hours/ *for two hours.' (telic)

(12) a. Muž gotovil užin-Ø čas/ * za čas
husband cooked.IMPF dinner-ACC hour/ *in hour
'The husband was cooking dinner for an hour/ * in an hour.' (atelic)

b. Muž pri-gotovil užin-Ø za čas/ * čas
husband PF-cooked dinner-ACC in hour/ * hour
'The husband cooked the dinner in an hour/ * for an hour.' (telic)

(13) a. Deti delali domasnju-ju rabot-u pjat' minut/
children did.IMPF home-ACC work-ACC five minutes/

* za pjat’ minut
* in five minutes
‘The children were doing their homework for five minutes/ * in five minutes.’ (atelic)

b. Deti s-delali domasnju-ju rabot-u za pjat’ minut/
children PF-did home-ACC work-ACC in five minutes/

* pjat’ minut
* five minutes
‘The children did their homework in five minutes/ * for five minutes.’ (telic)

(14) a. Deti čitali skazk-i dva časa/ *za dva časa
children read.IMPF fairy.tales-ACC two hours/ *for two hours
‘The children were reading fairy tales for two hours/ * in two hours.’ (atelic)

b. Deti pro-čitali skazk-i za dva časa/ * dva časa
children PF-read fairy.tales-ACC in two hours/ * two hours
‘The children read the fairy tales in two hours/ * for two hours.’ (telic)

(15) a. Stroiteli stroili etaž-Ø odno leto/
construction.workers built.IMPF floor-ACC one summer/

*za odno leto.
*in one summer
‘The construction workers were working on adding the floor for one summer/
*in one summer.’ (atelic)

b. Stroiteli pri-stroili etaž-Ø za odno leto/ .
construction.workers PF-built floor-ACC in one summer

*odno leto.
*one summer
‘The construction workers added the floor in one summer/ *for one summer.’ (telic)

The telicity of the verbs in Table 9 is tested by the adverbial modification test ‘in X time/ for X time’. Recall from chapter 2, section 2.2.4.1 that according to this test, atelic predicates are grammatical with the ‘for X time’ adverbial phrase and ungrammatical with the ‘in X time’ adverbial phrase, whereas telic predicates are grammatical with the ‘in X time’ adverbial phrase and ungrammatical with the ‘for X time’ adverbial phrase. Based on the results of the adverbial

modification test, the predicates in the examples (9a) - (15a) are atelic. Once a telic or a lexical prefix is added to these verbs, the lexical aspect of the predicate changes from atelic to telic, as seen in (9b) – (15b). This change is evidenced by the grammaticality of the sentences in (9b) – (15b) with the 'in X time' phrase.

Lastly, the verbs presented in Table 9 and in the examples in (9) – (15) take DP arguments that are case-marked with structural Accusative.

To summarize, the examples in (9) – (15) show that the verbs in Table 9 have the following properties: (i) they merge with telic or lexical prefixes and as such, can form SIs; (ii) they pass the adverbial modification test for telicity; and (iii) they take DP objects marked with structural Accusative case. Based on these properties, I conclude that the event structure of the base forms of these verbs is compositionally determined and as such, these verbs can be used as Condition 1 verbs in the experimental sentences of the LE task.

4.5.2 LE task for Condition 2 verbs

Condition 2 verbs included in the experimental sentences of the LE task are listed in Table 10. [61]

[61] Recall from chapter 2, section 2.5.1 that Richardson (2007) makes the theoretical proposal that in Russian, structural Accusative case is aspectually relevant. Specifically, structural Accusative case is linked to the compositional event structure of the base form of a verb. Since the empirical study presented in this dissertation is inspired by Richardson's theoretical proposal, I use the inherently atelic verbs listed in Richardson (2007:231-235) in the sentences of the experimental tasks. The analysis presented in section 4.5.2 shows that these verbs have all the properties of Condition 2 verbs.

Table 10: Condition 2 verbs included in the LE task

Superlexical prefix *po-*	Base forms of the verbs whose event structure is not compositionally determined	Prefixed perfective verbs	DP argument marked with lexical case	Secondary Imperfective (i.e. PF-root-SI-INF)
po-	*aplodirovat'* applaud.IMPF	*po-aplodirovat'* PF-applaud	*aktyor-am* actors-DAT	N/A
po-	*dirižirovat'* conduct.IMPF	*po-dirižirovat* PF-conduct	*orkestr-om* orchestra-INSTR	N/A
po-	*komandovat'* command.IMPF	*po-komandovat'* PF-command	*polk-om* division-INSTR	N/A
po-	*zavedovat'* manage.IMPF	*po-zavedovat'* PF-manage	*kanšeljari-ej* office-INSTR	N/A
po-	*rukovodit'* lead.IMPF	*po-rukovodit'* PF-lead	*otdel-om* department-INSTR	N/A
po-	*akkomponirovat'* accompany.IMPF '	*po-akkomponirovat'* PF-accompany	*pevc-u* singer-DAT	N/A
po-	*assistirovat'* assist.IMPF	*po-assistirovat'* PF-assist	*vrač-u* doctor-DAT	N/A

The data presented in Table 10 show that the base forms of the verbs from column 2 of Table 10 can merge with the prefix *po-*. The perfective verbs prefixed with *po-* are presented in column 3 of Table 10. The prefix *po-* is referred to as a superlexical prefix. It has the meaning of

a temporal modifier ‘for a while’, and it does not change the lexical meaning of the verb it attaches to.

It should be noted here that in contrast to the perfective verbs prefixed with lexical and telic prefixes listed in Table 9, the perfective verbs prefixed by the superlexical prefix *po-* in Table 10 cannot form SIs. This is because no new lexical meaning is derived when the prefix *po-* is added to the imperfective verb. For example, when the superlexical prefix *po-* is added to the imperfective verb *aplodirovat’* ‘applaud.IMPF’, it yields a perfective verb with the same meaning, where the superlexical prefix *po-* acts as an adverbial modifier ‘for a while’, as seen in (16).

(16)	Posle	spektaklja	zriteli	po-aplodirovali	aktjor-am
	After	performance	audience	PF-applauded	actors.DAT

‘After the performance, the audience was applauding the actors for a while.’

As seen from (16), the prefix *po-* perfectivizes the imperfective base form and expresses the duration of the event without changing its lexical meaning. The imperfective counterpart *aplodirovat’* ‘applaud.IMPF’ of the perfective verb *po-aplodirovat’* ‘PF-applaud’ already exists, so a SI form is redundant.[62]

Another property of the superlexical prefix *po-* is that it attaches to inherently atelic base forms of verbs that stay atelic. In order to show that the superlexical prefix *po-* does not change the telicity of a predicate, I apply the progressive test. Recall from chapter 2, section 2.2.4.1 and section 4.4 that atelic predicates prefixed with *po-* might be grammatical for some NSs of Russian with the adverbial phrase ‘in X time’. In order to avoid this ambiguity (i.e.

[62] For more on why the perfective verbs prefixed by superlexical prefixes cannot form a SI, see Ludwig (1995:30, as cited in Richardson 2007).

grammaticality with both adverbial modification phrases ‘for X time’ and ‘in X time’), the progressive test is applied to the verbs listed in Table 4. The progressive test is illustrated in the examples in (17) - (23).

(17) a. Kogda opustilsja zanaves, zriteli aplodirovali aktjor-am →
when fell curtain audience applauded.IMPF actors-DAT
‘When the curtain fell, the audience was applauding the actors.’

b. Zriteli uže po-aplodirovali aktjor-am
audience already PF-applauded actors-DAT
‘The audience has already applauded the actors.’

(18) a. Kogda Rostrapoviču ispolnilos’ 35 let, on
when Rostrapovič turned 35 years he

direžiroval orkestr-om. →
conducted.IMPF orchestra-INSTR
‘When Rostrapovič turned 35, he was conducting an orchestra.’

b. Rostrapovič uže po-direžiroval orkestr-om
Rostrapovič already PF-conducted orchestra-INSTR
‘Rostrapovič has already conducted an orchestra.’

(19) a. Kogda načalas’ vojna, general Žukov komandoval
when came war general Žukov commanded.IMPF

polk-om →
division-INSTR
‘When the war started, general Žukov was commanding the division.’

b. General Žukov uže po-komandoval
general Žukov already PF-commanded

polk-om
division-INSTR
‘General Žukov has already commanded the division.’

(20) a. Kogda Ivan byl prin'jat na rebotu, Maša
when Ivan was hired for job Maša

zavedovala kančeljari-ej →
managed.IMPF office-INSTR
'When Ivan was hired, Maša was managing the office.'

b. Maša uže po-zavedovala kančeljari-ej.
Maša already PF-managed office-INSTR
'Maša has already managed the office.'

(21) a. Kogda načalas' Perestrojka, Yurij rukovodil
when started Peresprojka Yurij managed.IMPF

otdel-om perevodčikov. →
department-INSTR translators
'When Perestrojka started, Yurij was managing the department of translators.'

b. Yurij uže po-rukovodil otdel-om perevodčikov.
Yurij already PF-run department-INSTR translators
'Yurij has already managed the department of translators.'

(22) a. Kogda podnjalsja zanaves, pianist akkompaniroval
when raised curtain pianist accompanied.IMPF

pevts-u na rojale →
singer-DAT at grand.piano
'When the curtain fell, a pianist was accompanying a singer at the grand piano.'

b. Pianist uže po-akkomponiroval pevts-u na rojale
pianist already PF-accompanied singer-DAT at grand.piano
'A pianist has already accompanied a singer at the grand piano.'

(23) a. Kogda objavili požarnuju trevogy, Maša asistirovala
when declared fire alarm, Maša assisted.IMPF

izvestn-omu khirurg-u →
famous-DAT surgeon-DAT.
'When the fire alarm went off, Maša was assisting a famous surgeon.'

b. Maša uže po-asistirovala izvestm-onu khirurg-u.
Maša already PF-assisted famous-DAT surgeon-DAT
'Maša has already assisted a famous surgeon.'

The data in (17) – (23) show that the sentences with an atelic progressive predicate, as seen in (17a) – (23a) entail the truth of the sentences with non-progressive readings, as seen in (17b) – (23b). The data in (17) – (23) show that the verbs are atelic despite the presence of the perfective superlexical prefix *po*-.

Lastly, the verbs presented in Table 10 and in the examples in (17) – (23) take direct objects that are case-marked with lexical case.

To summarize, the examples in (17) – (23) show that the verbs in Table 10 have the following properties: (i) they merge with the superlexical prefix *po*- and as such, cannot form a SI; (ii) they pass the progressive test for telicity; and (iii) they take DP objects marked with lexical case. Based on these properties, I conclude that the event structure of the base forms of these verbs is not compositionally determined and as such, these verbs can be used as Condition 2 verbs in the experimental sentences of the LE task.

4.5.3 LE task for Condition 1 and Condition 2 verbs

On the LE task, L2 learners of Russian were given 18 pairs of sentences including 4 distractors. The test sentences were divided into the two types of sentences with Condition 1 and Condition 2 verbs with their relevant properties, as discussed in sections 4.5.1 and 4.5.2. The pairs of sentences with Condition 1 and Condition 2 verbs were mixed and presented to the participants in a random order. The first sentence of each pair included an unprefixed imperfective verb with the DP argument marked either with structural Accusative case or with lexical case depending on the event structure of the base form of the verb. The second sentence in the pair included the same perfective verb prefixed either with a lexical or a telic prefix, or with a superlexical prefix with the DP argument marked with structural Accusative case or with lexical case depending on

the event structure of the base form of the verb. The participants were asked to read a pair of two sentences and decide whether or not the event that happened in the second sentence could be logically inferred from the event that happened in the first sentence. Specifically, the participants were asked to answer the following question, "Do you think that if the action/ event in sentence (a) happened, then the action/ event in sentence (b) must have happened as well?" The participants were provided with three choices (i.e. *'Yes', 'No'* or *'I don't know'*) and were instructed to circle the appropriate answer. Examples of the sentences of the LE task are given in (24) and (25) with the boxed answer as the correct answer for both examples.[63] See Appendices C and D for the full version of the LE task. Note that the LE task in Appendix C is presented in Russian, as it was administered to the participants. The English translation of the LE task is presented in Appendix D.

(24) a. Kogda mama prišla s raboty, deti myli
when mom came from work children washed.IMPF

posud-u.
dishes.ACC.
'When mom came from work, the children were washing the dishes.'

b. Deti uže vy-myli posud-u.
chidren already PF-washed dishes-ACC
'The children have already washed the dishes.'

If (24a) is true, is (24b) also true?

Yes *No* *I don't know*

[63] The examples presented in (24) are for illustrative purposes only. In both cases, the examples illustrate the correct answers to be provided by the participants. The participants may also choose 'Yes' or 'I don't know' as the incorrect answers in (24a), or 'No' or 'I don't know' as the incorrect answers in (24b). If they choose the incorrect answers, their performance would demonstrate that they do not differentiate between telic and atelic events. Specifically, for the example in (24b), the incorrect answers would show that the participants incorrectly treat all prefixed verbs as telic (i.e. Condition 1 verbs) and therefore they do not differentiate between telicity and perfectivity.

(25) a. Kogda opustilsja zanaves, zriteli aplodirovali
when fell curtain audience applauded.IMPF

aktjor-am
actors-DAT
'When the curtain fell, the audience was applauding the actors.'

b. Zriteli uže po-aplodirovali aktjor-am
audience already PF-applauded actors-DAT
'The audience has already applauded the actors.'

If (25a) is true, is (25b) also true?

Yes *No* *I don't know*

By choosing *No* in (24) and *Yes* in (25), the participants demonstrate that they are aware that in (24) the verb has changed its lexical aspect from atelic to telic when the purely telic prefix *vy-* is added to the verb in (24b); however, in (25), the predicate remains atelic and the addition of the superlexical prefix *po-* in (25b) does not change the lexical aspect of the predicate. By correctly choosing 'No' in (24) and 'Yes' in (25), the participants demonstrate the knowledge that (i) not all verbs prefixed with a perfective affix are telic; in other words, they understand the difference between telicity and perfectivity; (ii) the perfective verbs prefixed with lexical and telic prefixes are different from the verbs prefixed with the superlexical prefix *po-* that does not affect the event structure of the inherently atelic verb.

4.6 Experimental tasks: Grammaticality Judgement (GJ) task

The second task used in the study is a Grammaticality Judgement (GJ) task. The purpose of this task is to identify whether L2 learners of Russian know that in Russian, structural Accusative case is aspectually relevant and it is linked to the compositional event structure of the

base form of a verb. More specifically, the DP arguments of Condition 1 verbs are marked with structural Accusative case, and the DP arguments of Condition 2 verbs (i.e. inherently atelic verbs) are marked with lexical case.

4.6.1 GJ task for Condition 1 verbs

Condition 1 verbs included in the GJ task are listed in Table 11.

Table 11: Condition 1 verbs included in the GJ task

Telic and lexical prefixes	Base forms of the verbs whose event structure is compositionally determined	Prefixed perfective verbs	DP argument marked with structural Accusative case	Secondary imperfective (i.e. PF-root-SI-INF)
v- (lexical)	*bit'* beat.IMPF	*v-bit'* PF-beat 'hammer.in'	*gvozd'-Ø* nail-ACC	*v-b-iva-t'* PF-beat-SI-INF
za- (lexical)	*voročat'* handle.IMPF	*za-vernut'* PF-handle 'wrap.up'	*podarok-Ø* gift-ACC	*za-vorač-iva-t'* PF-handle-SI-INF
vy- (telic)	*stirat'* wash.IMPF	*vy-stirat'* PF-wash 'wash up'	*rubašk-i* shirt-ACC	*vy-stir-yva-t'* PF-wash-SI-INF
pri- (lexical)	*nesti* carry.IMPF	*pri-nesti* PF-carry 'bring'	*kotenk-a* kitten-ACC	*pri-nos-i-t'* PF-carry-SI-INF
s- (telic)	*vjazat'* knit.IMPF	*s-vjazat'* PF-knit 'knit up'	*koft-u* cardigan-ACC	*s-vjaz-yva-t'* PF-knit-SI-INF
u- (lexical)	*brat'* take.IMPF	*u-brat'* PF-take 'clean.up'	*komnat-u* room-ACC	*u-bir-a-t'* PF-clean-SI-INF
na- *(lexical)*	*brosit'* throw.IMPF	*na-brosit'* PF-throw 'throw.over' (one's shoulders)	*platok-Ø* shawl-ACC	*na-bras-yva-t'* PF-trow-SI-INF
pere- (lexical)	*brosit'* throw.IMPF	*pere-brosit'* PF-throw 'throw.over' (a fence)	*mjač-Ø* ball-ACC	*pere-bras-yva-t'* PF-trow-SI-INF
pod- (lexical)	*brosit'* throw.IMPF	*pod-brosit'* PF-throw 'throw.up' (in the sky)	*mjač-Ø* ball-ACC	*pod-bras-yva-t'* PF-trow-SI-INF

As seen from Table 11, Condition 1 base forms of the verbs from column 2 can merge with the telic prefixes, as in *vy-stirat'* 'PF-wash', *s-vjazat'* 'PF-knit', and lexical prefixes, as in *v-bit'* 'PF-beat' 'hammer.in', *za-vernut'* 'PF-handle' 'wrap up', *pri-nesti* 'PF-carry' 'bring', *u-brat'* 'PF-take' 'clean', *na-brosit'* 'PF-throw' 'throw over' (one's shoulders), *pere-brosit'* 'PF-throw' 'throw over' and *pod-brosit'* 'PF-throw' 'throw up'. The prefixes from column 1 are referred to as telic or lexical since all the verbs prefixed with them can form the SIs, as seen from column 5.

Another property of the telic and lexical prefixes listed in Table 11 is that they change lexical aspect from atelic to telic. The telicity of the verbs from Table 11 is tested by the adverbial modification test 'in X time/ for X time', which is illustrated by the examples in (26) – (36).

(26) a. Soldat bil vragov-ACC četyre goda/ *za četyre goda
soldier beat.IMPF enemies four years *in four years
'A soldier was fighting enemies for four years/ *in four years.' (atelic)

b. Stroitel' v-bil gvozd'-ø v stenu za minutu/*minutu
builder PF-beat nail-ACC in wall in minute/*minute
'The construction worker hammered a nail into the wall in a minute/ *for a minute.' (telic)

(27) a. Prodavščica voročala tjažolyj mešok-ø plat' minut/ *za
sales.person handled.IMPF heavy sack-ACC five minutes/ *in

pljat' minut (atelic)
five minutes
'A sales person was handling a heavy sack for five minutes/ *in five minutes.'

b. Prodavščica za-vernula podarok-ø za minutu/ *minutu
sales.person PF-handled gift-ACC in minute/ *minute
'A sales person wrapped the gift up in a minute/*for a minute.' (telic)

(28) a. Mama stirala rubašk-i desjat' minut/* za desjat' minut
mom washed.IMPF shirts-ACC ten minutes/* in ten minutes
'Mom was washing shirts for 10 minutes/ * in ten minutes.' (atelic)

b. Mama vy-stirala rubašk-i za dve minuty/ *dve minuty
mom PF-washed shirts-ACC in two minutes/ *two minutes
'Mom washed a shirt in two minutes/for two minutes.' (telic)

(29) a. Maša nesla kotjonk-a domoj dva časa/*in dva časa
Maša carried.IMPF kitten-ACC home two hours/*in two hours
'Maša was carrying a kitten home for two hours/*in two hours.' (atelic)

b. Maša pri-nesla kotjonk-a domoj za dva časa/*dva časa
Maša PF-carried kitten-ACC home in two hours/*two hours
'Maša brought a kitten home in two hours/*for two hours.' (telic)

(30) a. Maša vjazala koft-u dva goda/* za dva goda
Maša knitted.IMPF cardigan-ACC two years/* in two years
'Maša was knitting a/ the jacket for two years/*in two years.' (atelic)

b. Maša s-vjazala koft-u za dva goda/*dva goda
Maša PF-knitted cardigan-ACC in two years/*two years
'Maša knitted the jacket in two years/*for two years.' (telic)

(31) a. Daša brala urok-i matematiki dva goda/ *za dva
Daša took.IMPF lessons-ACC mathematics two years/ *in two

goda (atelic)
years
'Daša was taking lessons in mathematics for two years/ *in two years.'

(32) b. Daša u-brala komnat-u za čas/ *čas
Daša PF-took room-ACC in hour/*hour
'Daša cleaned the apartment in an hour/ *hour.' (telic)

(33) a. Devočka brosala mjač-ø pjat' minut/ *za pjat' minut
girl threw.IMPF ball-ACC five minutes/ *in five minutes
'A girl was throwing a ball for five minutes/* in five minutes.' (atelic)

(34) b. Devočka pod-brosila mjač-ø vysoko v nebo za
girl PF-threw ball-ACC high in sky in

odnu secondu/ *odnu secoundu
one second/ *one second
'A girl threw a ball up high in the sky in one second/*for one second.'

(35) a. Devočka brosala mjač-ø pjat' minut/ *za pjat' minut
girl threw.IMPF ball-ACC five minutes/ *in five minutes
'A girl was throwing a ball for five minutes/* in five minutes.' (atelic)

b. Babuška na-brosila platok-ø na pleči za
grandma PF-threw shawl-ACC on shoulders in

odnu secundu/ * odnu secundu (telic)
one second/ * one second
'The grandmother threw her shawl over her shoulders in one second/ *for one second.'

(36) a. Devočka brosala mjač-ø pjat' minut/ *za pjat' minut
girl threw.IMPF ball-ACC five minutes/ *in five minutes
'A girl was throwing a ball for five minutes/* in five minutes.' (atelic)

b. Reb'jata pere-brosili mjač-ø čerez zabor za
guys PF -threw ball-ACC over fence in

odnu secundu/ *odnu secundu
one second / * one second
'The guys threw a ball over a/the fence in one second/ *for one second.' (telic)

Based on the results of the adverbial modification test (i.e. grammatical with 'for X time' and ungrammatical with 'in X time'), the predicates in examples (26a) - (36a) are atelic. Once a telic or a lexical prefix is added to these verbs in (26a) – (36a), the lexical aspect of the predicate changes from atelic to telic. This change is evidenced by the grammaticality of the sentences in (26b) – (36b) with the 'in X time' phrase.

Lastly, the examples in (26) – (36) also show that the verbs presented in Table 11 take DP arguments that are marked with structural Accusative case.

To summarize, the verbs in Table 11 have the following properties: (i) they merge with telic or lexical prefixes and as such, can form a SI; (ii) they pass the adverbial modification test for telicity; and (iii) they take DP objects marked with structural Accusative case. Based on these properties, I conclude that the event structure of the base forms of these verbs is compositionally

determined and as such, these verbs can be used as Condition 1 verbs in the experimental sentences of the GJ task.

4.6.2 GJ task for Condition 2 verbs

Condition 2 verbs included in the GJ task are listed in Table 12.

Table 12: Condition 2 verbs included in the GJ task

Superlexical prefix *po-*	Based forms of inherently atelic verbs [64]	Prefixed perfective verbs	DP arguments are assigned lexical case	Secondary imperfective (i.e. PF-root-SI-INF)
po-	*voskhiščat'sja* admire.IMPF	*po-voskhiščat'sja* PF-admire	*uspex-ami* success-INSTR	N/A
po-	*zloupotrebljat'* misuse.IMPF	*po-zloupotrebljat'* PF-misuse	*alkogol-em* alcohol-INSTR	N/A
po-	*gordit'sja* be.proud.IMPF	*po-gordit'sja* PF-be.proud	*det'-mi* children-INSTR	N/A
po-	*dorožit'* value.IMPF	*po-dorožit'* PF-value	zdorovj-em health-INSTR	N/A
po-	*dokučat* bother.IMPF	*po-dokučat'* PF-bother	professor-u professor-DAT	N/A[65]
po-	*čuždat'sja* avoid.IMPF	*po-čuždat'sja* PF-avoid	mam-y mom-GEN	N/A
po-	*zavidovat'* envy.IMPF	*po-zavidovat'* PF-envy	Alekse-ju Alexij-DAT	N/A
po-	*mešat'* meddle.IMPF	*po-mešat'* PF-meddle	svad'b-e wedding-DAT	po-meš-yva-t' PF-stir-SI-INF
po-	*stoit'* be.worth.IMPF	**po-stoit'* PF-be.worth	sljoz-ø tears-GEN	N/A

The data in Table 12 show that with one exception (i.e. the verb *stoit'* 'be.worth.IMPF'), all the verbs can merge with the superlexical prefix *po-* that adds perfectivity but does not make

[64] As discussed in footnote 60, condition 2 verbs (i.e. the inherently atelic verbs) are taken from Richardson (2007).
[65] The SI form *po-dokuč-iva-t'* 'PF-bother-SI-INF' of the verb *dokučat* 'bother.IMPF' is not attested in Modern Russian.

the verb telic. In addition, the majority of the verbs in Table 6 cannot form the SIs. The verbs *dokucat'* 'bother.IMPF' and *mešat'* 'meddle.IMPF' are exceptions which can be accounted for by noticing that the SI form *po-dakuč-iva-t'* 'PF-bother-SI-INF' is not attested in Modern Russian, and the SI form *po-meš-yva-t'* PF-stir-SI-INF' has a different meaning: *po-mešat'* 'PF-stir' vs. *po-meš-yva-t'* 'PF-stir-SI-INF'.

Sentences with the verbs in Table 12 show grammaticality with the 'for X time' phrase and take objects marked with lexical case, as illustrated in (37) – (45).

(37) Mama vosxičšalas' uspex-ami syna dva goda/*za dva
mom admired.IMPF success-INSTR son two years/*in two

goda
years
'Mom was admiring the success of her son for two years/*in two years.'

(38) Miša zloupotrebljal alkogol-em desjat' let/ *za desjat'
Miša misued.IMPF alcohol-INSTR ten years/ *in ten

let
years
'Miša was misusing alcohol for ten years/ *in ten years.'

(39) Daša gorditsja det'-mi vsju svoju žizn'/
Daša is.proud.IMPF chidren-INSTR all her life

*za vsju svoju žizn'
*in all her life
'Daša was proud of (her) children all her life/ in all her life.'

(40) Každyj čelovek dorožit zdorovj-em vsju svoju
every person cherish.IMPF health-INSTR all his

žizn'/ *za vsju svoju žizn
life / *in all his life
'Every person cherishes her/his health all her/his life.'

(41) Student dokučal professor-u svoimi voprosami dva
student bothered.IMPF professor-DAT his questions two

časa/ *za dva časa
hours/ in two hours
'A student was bothering the professor with his questions for two hours/ *in two hours.'

(42) Podrostok čuždalsja svojej mam-y dva časa/
teenager avoided.IMPF his -GEN mother-GEN two hours

*za dva časa
in all evening
'A teenager was avoiding his mom for two hours/ *in two hours.'

(43) Anna zavidivala Aleksej-u pjat' let / *za pjat' let
Anna envied.IMPF Aleksej-DAT five years/ *in all years
'Anna envied Aleksej for five years/ *in five years.'

(44) Etot čelovek ne stoil tvo-ix sl'joz-ø
this person not was.worth.IMPF your-GEN tears-GEN

vsju tviju žizn'/ *za vsju tvoju žizn'
all your life/ *in all your life
'This person was not worth your tears shed all your life/ *in all your life.'

(45) Roditeli mešali svad'b-e dočeri dvagoda/ *za dva goda
parents meddled wedding-DAT daughter two years/ *in two years
'The parents has been meddling in their daughter's wedding for two years/ *in two years.'

To summarize, the examples in (37) – (45) show that the verbs used in Table 12 have the following properties: (i) they merge with the superlexical prefix *po-* and as such, cannot form a SI; (ii) they pass the adverbial modification test for atelicity; and (iii) crucially, they assign lexical case to their DP objects. Based on these properties, I conclude that the event structure of the base forms of these verbs is not compositionally determined and as such, they can be used as Condition 2 verbs in the experimental sentences of the GJ task.

4.6.3 The GJ task for Condition 1 and Condition 2 verbs

In order to test whether L2 learners of Russian know that structural Accusative case is aspectually relevant and is linked to the compositional event structure of the base form of a verb, the participants were given 24 pairs of sentences including 6 distractors. Out of the 18 pairs of the test sentences, 9 pairs of sentences targeted Condition 1 verbs and 9 pairs of sentences targeted Condition 2 verbs. Each pair of sentences included a grammatical and an ungrammatical sentence. For Condition 1 verbs, a grammatical sentence had a DP argument with structural Accusative case and an ungrammatical sentence where a DP argument was incorrectly marked with non-structural case. For Condition 2 verbs, a grammatical sentence had a DP argument that was assigned lexical case by an inherently atelic verb, and an ungrammatical sentence with a DP argument marked with structural Accusative case.

Examples of the sentences included in the GJ task for both Condition 1 and Condition 2 verbs are given in (46) and (47), respectively.

(46) a. Prodavšiča za-vernula podarok-ø ← correct answer
sales.person PF-handled gift-ACC
'A sales person wrapped the gift up.'

b. Prodavšiča za-vernula podark-a ← incorrect answer
sales.person PF-handled gift-GEN
'A sales person wrapped the gift up.'

c. I don't know.

(47) a. Daša gorditsja det'-mi ← correct answer
Daša is.proud.IMPF chidren-INSTR
'Daša is proud of her children.'

b. Daša gorditsja det'-ej ← incorrect answer
Daša is.proud.IMPF chidren-ACC
'Daša is proud of her children.'

c. I don't know.

Condition 1 verb *za-vernula* ‘PF-handled’ ‘wrapped up’, whose event structure is compositionally determined, takes the DP argument *podarok-ø* ‘gift-ACC’, which is marked with structural Accusative case. By choosing (46a), the participants demonstrate that they know that structural Accusative case is aspectually relevant. In (47a) the verb *gorditsja* ‘is.proud.IMPF’ is inherently atelic; it can never merge with prefixes that affect its telicity, and as an inherently atelic verb, it assigns lexical (Instrumental) case to its DP argument *det’-mi* ‘children-INSTR’. As seen from examples (46c) and (47c), the participants are also given the option ‘I don’t know’ that they can choose if they are not sure which of the two sentences is grammatical.[66] See Appendices E and F for the full version of the GJ task. Note that the GJ task in Appendix E is presented in Russian, as it was administered to the participants. The English translation of the GJ task is presented in Appendix F.

[66] The purpose of this footnote is to explain the asymmetry between Condition 1 and Condition 2 verbs of the GJ task. As seen in (46), the Condition 1 verb is prefixed with the lexical prefix *za-*, whereas the Condition 2 verb is unprefixed in (47). As shown in Table 11, Condition 1 verbs can be combined with different telic and lexical prefixes. Recall that one of the characteristics of the base forms of Condition 1 verbs is that they can be combined with telic or lexical prefixes. In contrast, one of the characteristics of the inherently atelic base forms of Condition 2 verbs is that they can only be combined with superlexical prefixes. It should be noted here that there are only few superlexical prefixes in Russian and not all of them can be combined with the base forms of Condition 2 verbs, as this relationship is idiosyncratic. The only superlexical prefix that the base forms of Condition 2 verbs can be combined with is the superlexical prefix *po-*, as shown in Table 12. Therefore, in order to prevent the participants from establishing the pattern, where each verb prefixed with *po-* would be considered a Condition 2 verb on the GJ task, Condition 2 verbs were presented without any prefixes.

4.7 Experimental tasks: Elicited Production (EP) task

The third task used in the study is the Elicited Production (EP) task. The EP task is different from the LE task and the GJ task in that in this task, L2 learners of Russian were asked to supply in writing a correct morphological case inflection of an internal DP argument given to them in the Nominative case, which is the base form of the noun. Out of the 12 verbs selected for this task, the base form of six verbs is compositionally determined (i.e. these are Condition 1 verbs). This means that (i) the base forms of these verbs can merge with telic or lexical prefixes that change the lexical aspect of the predicate from atelic to telic, and (ii) the verbs take DP arguments marked with structural Accusative case. The base form of the other six verbs selected for the task is not compositionally determined (i.e. Condition 2). This means that (i) inherently atelic verbs can merge only with superlexical prefixes that do not change the telicity of the event; (ii) the inherently atelic verbs assign lexical case to their DP arguments.

4.7.1 EP task for Condition 1 verbs

Condition 1 verbs included in the EP task are listed in Table 13.

Table 13: Condition 1 verbs used in the EP task

Telic and lexical prefixes	Base forms of the verbs whose event structure is compositionally determined	Prefixed perfective verbs	DP arguments marked with structural Accusative case	SI forms (i.e. PF-root-SI-INF)
u- (lexical prefix)	*bit'* beat.IMPF	*u-bit'* PF-beat 'kill'	*konj-a* horse-ACC	*u-biv-a-t'* PF-beat-SI-INF
na- (telic prefix)	*pisat'* write.IMPF	*na-pisat'* PF-write	*poem-u* poem-ACC	*?na-pis-yva-t'* PF-write-SI-INF
pri- (lexical prefix)	*dumat'* think.IMPF	*pri-dumat'* PF-think 'create'	*istorij-u* story-ACC	*pri-dum-yva-t'* PF-think-SI-INF 'be creating'
pod- (lexical prefix)	*delat'* do.IMPF	*pod-delat'* PF-do 'forge'	*otsenk-u* grade-ACC	*pod-del-yva-t'* PF-do-SI-INF 'be forging'
pro- (telic prefix)	*čitat'* read.IMPF	*pro-čitat'* PF-read	*p'es-u* play-ACC	*pro-čit-yva-t'* PF-read-SI-IMPF
raz- (lexical prefix)	*ljubit'* love.IMPF	*raz-ljubit'* PF-love 'fall out of love'	*Nataš-u* Nataša-ACC	*?raz-ljubl-iva-t'* PF-love-SI-INF Intended mening: 'be falling out of love'

Recall from chapter 2, section 2.2.4.3, and chapter 4, sections 4.5 and 4.6 that the majority of verbs prefixed with lexical or telic prefixes can form SIs, whereas the majority of verbs prefixed with superlexical prefixes cannot. The majority of the verbs prefixed with the

prefixes listed in Table 13 pass the SI test; therefore, according to the test they combine with lexical or telic prefixes. There are two exceptions as follows: *na-pisat'* 'PF-write' and *raz-ljubit'* 'PF- love' 'fall put of love'. However, the discussion presented below shows that although the SIs from the verbs *na-pisat'* 'PF-write' and *raz-ljubit'* 'PF- love' 'fall out of love' are not attested in Modern Russian, they are considered Condition 1 verbs.

Example (48) shows that although the SI form **na-pis-yva-t'* 'PF-write-SI-INF' is not attested in Russian, the perfective form *po-na-pis-yva-t'* 'PF-PF-write-SI-INF' is used in Modern Russian (National Corpus of the Russian Language 2014).

(48) Eto sledovateli gadjuki po-na-pis-yva-l-i
It detectives cobras PF-PF-wrote-SI-PAST-3.PL
'It was written by the damn detectives.'

In (48), *na-* is a telic prefix since it is closer to the root, and *po-* is a superlexical prefix which is typically stacked in Russian on top of a lexical or a telic prefix; therefore, the verb *na-pisat'* 'PF-write' can be used here as a Condition 1 verb, as it is prefixed with a telic prefix *na-*.

Although the verb *raz-ljubl-iva-t'* 'PF-love-SI-INF' is not attested in Modern Russian, the following example from a 19th century writing has been found in the National Corpus of the Russian Language (2014).

(49) Dosaždaenaja dokučnymi pros'bami rodnykh devočka Gruša
Bothered annoying requests relatives girl Gruša

stala raz-ljubl-iva-t' ikh
became PF-love-SI-INF them
'When bothered by the annoying requests of her relatives, the girl Grusha started falling out of love with them.'

The example in (49) shows that *raz-ljubit'* 'PF- love' 'fall out of love' is prefixed with a lexical prefix based on the SI test; therefore, this verb is a Condition 1 verb.

Since all the prefixed verbs presented in Table 13 can form SIs, the prefixes are referred to as lexical for *u-bit'* 'PF-beat' 'kill', *pri-dumat'* 'PF-think' 'create', *pod-delat'* 'PF-do' 'forge', and *raz-ljubit'* 'PF-love' 'fall out of love', or as telic prefixes for *na-pisat'* 'PF-write' and *pro-čitat* 'PF-write'. The adverbial combinations in the examples in (50) - (55) further illustrate that these prefixes affect the event structure of the base forms of the verbs.

(50) a. Vronsky bil konj-a tri minuty/ *za tri minuty
Vronsky beat.IMPF horse-ACC three minutes/ *in three minutes
'Vronsky was beating a horse for three minutes/ *in three minutes.' (atelic)

b. Vronsky u-bil konj-a za tri minuty/ *tri minuty
Vronsky PF-beat horse-ACC in three minutes/ *three minutes
'Vronsky killed the horse in three minutes/ *for three minutes.' (telic)

(51) a. Puškin pisal poem-u dva goda/ *za dva goda
Puškin wrote.IMPF poem-ACC two years/ *in two years
'Puškin was writing a poem for two years/ *in two years.' (atelic)

b. Puškin na-pisal poem-u za dva goda/*dva goda
Puškin PF-wrote poem-ACC in two years/*two years
'Puškin wrote the poem in two years/ *for wo years.' (telic)

(52) a. On dumal dum-u celyj den'/ *za celyj den'
he thought.IMPF thought-ACC whole day/ *in whole day
'He was thinking a thought for a whole day/ *in a whole day.' (atelic)

b. On pri-dumal istorij-u za den'/*den'
he PF-thought thought-ACC in day/* day
'He created a story in a day/ *for a day.' (telic)

(53) a. Deniska delal urok-i dva časa/ * in two hours
Deniska did.IMPF home.work-ACC two hours/ *za dva časa
'Deniska was doing his homework for two hours/ *in two hours.' (atelic)

b. Deniska pod-delal otsenk-u za secundu/ *secundu
Deniska PF-did grade-ACC in second/ *second
'Deniska forged his grade in a second/ *for a second.' (telic)

(54) a. Studenty čitali p'es-u Chekhova dva dnja/ *za dva
students read.IMPF play-ACC Chekhov two days/ *in two

dnja
days
'The students were reading Chekhov's play for two days/ *in two days.' (atelic)

b. Studenty pro-čitali p'es-u Chekhova za dva dnja/ *dva
students PF-read play-ACC Chekhov in two days/ *two

dnja
days
'The students read Chekhov's play in two days/ *for two days.' (telic)

(55) a. Andrey ljubil Nataš-u dva goda/ *za dva goda
Andrey loved.IMPF Nataša-ACC two years/ *in two years
'Andrey was in love with Natasha for two years/ *in two years.' (atelic)

b. Andrey raz-ljubil Nataš-u za dva goda/ *dva
Andrey PF-love Nataša-ACC in two years/ *two

goda
years
'Andrey fell out of love with Nataša in two years/ *for two years.' (telic)

The examples in (50) - (55) show that when lexical or telic prefixes are added to the imperfective atelic stems in (50a) - (55a), the prefixes change the lexical aspect of the predicate from atelic, as in (50a) – (55a) to telic, as in (50b) - (55b). Lastly, all the verbs in Table 13 take DP objects case-marked with structural Accusative. In sum, these verbs are all Condition 1 verbs.

4.7.2 EP task for Condition 2 verbs

The 6 inherently atelic verbs (i.e. Condition 2 verbs) selected for the study are listed in Table 14. The base forms of these verbs are not compositionally determined. This means that (i) these inherently atelic verbs can merge only with superlexical prefixes that do not change their atelicity; (ii) these verbs assign lexical case to their DP arguments.

Table 14: Condition 2 verbs included in the EP task

Superlexical prefixes	Base form of the verbs whose event structure is not compositionally determined	Prefixed perfective verbs	DP arguments marked with lexical case	Secondary Imperfective (PF-root-SI-INF)
po-	*upravljat'* manage.IMPF	*po-upravljat'* PF-manage	*stran-oj* country-INSTR	N/A
po-	*stesnjat'sja* be.shy.IMPF	*po-stesnjat'sja* PF-be.shy	*Karlson-a* Karlson-GEN	N/A
po-	*mešat'* prevent.IMPF	*po-mešat'* PF-prevent	*uničtoženij-u* destruction.DAT	N/A[67]
po-	*ljubovat'sja* admire.IMPF	*po-ljubovat'sja* PF-admire	*pejzaž-em* landscape-INSTR	N/A
vos-	*pol'zovat'sja* use.IMPF	*vos-pol'zovat'sja* PF-use	*položenj-em* situation-INSTR	N/A
po-	*sposobstvovat'* assist.IMPF	*po-sposobstvovat'* PF-assist	*razvitij-u* development-DAT	N/A

[67] The SI of the verb *mešat'* 'prevent.IMPF' is possible; however, it has a different meaning: *po-mešat'* 'PF-stir' vs. *po-meš-yva-t'* 'PF-stir-SI-INF'.

Note that all prefixes listed in Table 14 are superlexical because they cannot form the SIs. In addition, the superlexical prefixes listed in column 1 of Table 8 do not change the lexical aspect of the predicate from atelic to telic, as shown by the progressive test in the examples of (56) – (61) below. Recall from chapter 2 that atelic and telic predicates give rise to different logical inferences. In particular, a sentence with an atelic predicate in the progressive tense entails the truth of a sentence with a verb in the non-progressive tense. Recall also that the progressive test was used to test the atelicity of Condition 2 verbs of the LE task in section 5.4.2.

(56) a. Kogda načalas' vojna so švedami Pjotr Pervyi
when began war with Swedes Peter First

pravil.IMPF stran-oj →
rule country-INSTR
'When the war with the Swedes started, Peter the Great was ruling the country.'

b. Pjotr Pervyi uže po-upravljal stranoj
Peter First already PF-ruled country
'Peter the Great has already ruled the country.'

(57) a. Kogda nastalo utro turisty ljubovalis' pejzaž-em →
when began morning tourists admired.IMPF landscape-INSTR
'When the morning began, the tourists were admiring the landscape.'

b. Turisty uže po-ljubobalis' pejzaž-em
tourists already PF-admired landscape-INSTR
'The tourists have already admired the landscape.'

(58) a. Kogda prisla mama Malyš stesnjalsja Karlson-a →
when came mom little.boy felt.shy.IMPF Karlson-GEN
'When mom came, the little boy felt shy before Karlson.'

b. Malyš uže po-stesnjalsja Karlson-a
little.boy already PF-felt.shy Karlson-GEN
'The little boy has already felt shy of Karlson.'

(59) a. Kogda nastupila vojna partizany mešali
when began war partisans prevented.IMPF

uničtoženij-u museja →
destruction-DAT museum
'When the war started, the partisans were preventing the destruction of the museum.'

b. Partisany uže po-mešali uničtoženi-u museja
partisans already PF-prevented destruction-DAT museum
'The partisans have already prevented the destruction of the museum.'

(60) a. Kogda k nemu prisla slava on postojano pol'zovalsja svo-im
when PR him came fame he constantly used.IMPF his-INSTR

položeni-em izvetnogo aktjora' →
position-INSTR famous actor
'When he became famous, he was constantly using his authority as a famous actor.'

b. On uže vos-pol'zovalsja svo-im polozenij-em
he already PF-used his-INSTR authority-INSTR
'He has already used his authority.'

(61) a. Kogda proizošla revolucija on sposobstvoval razvitij-u
when happened revolution he promoted.IMPF development-DAT

Russkogo iskustva →
Russian art
'When the revolution happened, he was promoting the development of the Russian art.'

b. On uže po-sposobstvoval razvitij-u russkogo iskustva
he already PF-promoted development-DAT Russian art
'He has already promoted the development of the Russian art.'

The progressive test shows that the truth of the sentences in (56a) - (61a) implies the truth of the sentences in (56b) – (61b). Therefore, the verbs used in the examples in (56)- (61) are atelic.

In conclusion, the verbs listed in Table 14 have the following properties. They (i) are prefixed with the superlexical prefixes, as they cannot form SIs; (ii) pass the progressive test for atelicity; (iii) assign lexical case to their DP objects. Based on these properties, they are included in the EP task as Condition 2 verbs.

4.7.3 EP task for Condition 1 and Condition 2 verbs

The purpose of the EP task is to elicit the correct morphological case inflection from the L2 learners of Russian. Similar to the LE task and the GJ task, the EP task distinguishes between Condition 1 and Condition 2 verbs. Condition 1 verbs take direct objects marked with structural Accusative case, whereas Condition 2 verbs assigns lexical case to their direct objects.

In order to elicit the correct morphological inflection, on the EP task, the participants were asked to answer a question about a short story by using a prompt written after the story. The story and the question were written in English, whereas the prompt was written in Russian. The participants were asked to choose the correct morphological case inflection of a DP argument that was provided to them in the base Nominative case form. Examples (61) and (62) illustrate how Condition 1 and Condition 2 verbs were tested on the EP task. In (61), the base form of the verb *na-pisat'* 'PF-write', which is *pisat'* 'write', is compositionally determined; its lexical aspect is affected by the addition of the telic prefix *na-* that changes the predicate from atelic to telic; the DP argument *poem-u* 'poem-ACC' of this verb has structural Accusative case.

(61) *The story:*

Alexander Pushkin, a great Russian writer of the 19th century, created many unforgettable literary characters. One of his characters was a privileged young man named Eugene Onegin. Onegin spent the early years of his life attending countless parties, squandering his inheritance and hurting people who loved him. No wonder that he became disillusioned with his life.

Question:

When did Pushkin write "Eugene Onegin"?

Prompt:

Alexandr	Puškin	na-pisal	poem-a	“Evgenij Onegin”	v	19	veke.
Alexander	Puškin	PF- wrote	poem-NOM	“Evgenij Onegin”	in	19	century

‘Alexander Pushkin wrote his poem “Evgenij Onegin” in the 19th century.’

Correct Answer:

Alexandr	Puškin	na-pisal	poem-u	“Evgenij Onegin”	v	19	veke.
Alexander	Puškin	PF-wrote	poem-ACC	“Evgenij Onegin”	in	19	century

‘Alexander Pushkin wrote his poem “Evgenij Onegin” in the 19th century.’

The verb *na-pisat’* ‘PF-write’ requires the DP argument marked with structural Accusative case. The assumption here is that if a participant supplies the correct morphological inflection of the structural Accusative case for the DP argument *poem-a* ‘poem-NOM’, which is *poem-u* ‘poem-ACC’, s/he is aware that the event structure of the base form of the verb *pisat’* ‘write’ is compositionally determined.

Condition 2 verbs of the EP task is illustrated here by the example in (62). In this example, the base form of the verb *ljubovat’sja* ‘admire’ is not compositionally determined. The imperfective form of the verb can only merge with the superlexical prefix *po-* that does not change its telicity, and the inherently atelic verb *ljubovat’sja* ‘admire’ assigns Instrumental case to its DP argument *pejzaž-em* ‘landscape-INSTR’.

(62) *The story:*

The tourists went to the Caucasus Mountains. They were climbing the mountains the whole morning. When they reached the peak, they saw a beautiful landscape. In the afternoon, they spent an hour enjoying the landscape before they continued their expedition.

Question:

What did the tourists do in the afternoon?

Prompt:

Tourists	po-ljubovalis'	pejzaž-Ø	s	12	do	1	dnja.
Tourists	PF-admired	landscape-NOM	from	12	to	1	afternoon

'The tourists were admiring the landscape from noon to one.'

Correct Answer:

Touristy	po-ljubovalis'	pejzaž-em	s	12	do	1	dnja
Tourists	PF-admired	landscape-INSTR	from	12	to	1	afternoon

'The tourists were admiring the landscape from noon to one.'

The inherently atelic verb *ljubovat'sja* 'admire.IMPF' merges with the superlexical prefix *po-* and assigns lexical (Instrumental) case to its DP object. If a participant supplies the correct morphological inflection of lexical (Instrumental) case for the DP argument *pejzaž* 'landscape', which is *pejzaž-em* 'landscape-INSTR', the assumption is that s/he is aware that the event structure of the base form of the verb *ljubovat'sja* 'admire' is not compositionally determined. The full version of the EP task is shown in Appendices G and H. Note that the EP task in Appendix G is presented in Russian, as it was administered to the participants. The English translation of the EP task is presented in Appendix H.

4.8 Chapter summary

This chapter presents the major theoretical assumptions and research hypotheses to be investigated in the study on the acquisition of aspect and case by English L2 learners of Russian. It also identifies some differences among the existing studies on the acquisition of aspect by L2 learners of Russian and the present study. Specifically, it states the conditions controlled for in

Slabakova (2005) and Nossalik (2009), and the variables controlled for in the present study, which are illustrated by specific examples that introduce Condition 1 and Condition 2 verbs.

Three experimental tasks (i.e. the LE task, the GJ task, and the EP task) were developed to test these research hypotheses. The purpose of the LE task was to focus on different logical inferences of the verbs whose base form is (not) compositionally determined. The purpose of the GJ task was to focus on the morphological case of DP objects (structural or lexical) of the verbs whose base form is (not) compositionally determined. The purpose of the EP task was to elicit in writing the correct morphological case inflection of the DP objects of Condition 1 and Condition 2 verbs, respectively. The breakdown of the number of sentences used per task is shown in Table 15.

Table 15: The breakdown of the experimental sentences

Task	No. of sentences (Condition 1 verbs)	No. of sentences (Condition 2 verbs)
Logical Entailment (LE) task	7	7
Grammaticality Judgement (GJ) task	9	9
Elicited Production (EP) Task	6	6
Total number of experimental sentences per condition:	22	22
Total number of experimental sentences excluding distractors:	44	
Total number of experimental sentences including distractors:	55	

According to Mackey and Gass (2005:50), participation in the experiment can be tiresome and the participants' judgements can become unreliable when they have to judge a large number of sentences. In order to reduce the possibility of incorrect judgements and improve the reliability of an experimental study, Mackey and Gass (2005) recommend reducing the number of experimental sentences and only allowing up to 50. As seen from Table 15 above, the total number of experimental sentences in the present study including the distractors is 55. On average, it took a participant approximately an hour to fill in the questionnaire, do the cloze test and the three experimental tasks.

The next chapter provides a description of the procedure used to divide the participants into the experimental groups and the results of the three experimental tasks.

Chapter 5: Results

This chapter presents the results of the Logical Entailment (LE), Grammaticality Judgement (GJ) and Elicited Production (EP) tasks. This chapter is structured as follows. Section 5.1 explains how the participants of the control group were divided into the four proficiency groups (i.e. Advanced, High-Intermediate, Low-Intermediate and Beginners). Section 5.2 discusses the results of each experimental task. Section 5.3 discusses the results of the statistical procedure (i.e. a repeated measures ANOVA) used in the study. Section 5.4 concludes the chapter.

5.1 Description of the procedure of dividing the participants into proficiency groups

The 35 participants who took part in the experiment are divided into two groups: experimental (N=29) and control (N=6). The mean score and the standard deviation (SD) for the cloze test are calculated for each group. The mean score of the control group on the cloze test is 38, and the SD is 1.67. The mean score of the experimental group is 18.9, and the SD is 11.5 (see Table 16 below).

Table 16: The results of the control group and experimental group on the cloze test

Groups	Number	Mean	SD
Control	6	38.00 (range 36-40)	1.67
Experimental	29	18.9 (range 0-40)	11.5

In order to divide the participants of the experimental group into proficiency groups, I used the concept of normal distribution with its two important characteristics (i.e. central

tendency and dispersion).[68] Central tendency indicates the typical behaviour of a group and is estimated through the mean. Dispersion shows how the scores are dispersed or distributed around the central tendency and is estimated through the standard deviation (SD) and score range (Brown 1988:81). When I applied the concepts of central tendency and dispersion to the performance of the participants in the experimental group on the cloze test, I obtained the following results. The mean of the participants in the experimental group on the cloze test is 18.9, SD is 11.5 and the range is 40, where 0 is the lowest score and 40 is the highest score. In order to calculate the cut-off point for the advanced group, I added the SD to the mean and obtained the score of 30.4. Thus, any participant who scored above 30.4 was included into the Advanced group, and any participant who scored below 30.4 but above the mean score of 18.9 was included into the High-Intermediate group. In order to define the cut-off point for the Low-Intermediate group, I subtracted the SD from the mean and obtained the score of 7.4. Thus, any participant who scored above 7.4 but below 18.9 was included into the Low-Intermediate group, and any participant who scored below 7.4 was included into the Beginner group. Table 17 provides the distribution of the scores of the cloze test according to which the participants in the experimental group were divided into the four proficiency groups.

Table 17: The distribution of the scores of the cloze test

	Beginners	Low-Intermediate	High-Intermediate	Advanced	NSs (controls)
Cut-off Point	**0 --------→**	**7.4 -------→**	**18.9 ≈ 19 →**	**30.4 --------→**	**36-40**
Score Range	**0-6**	**7-18**	**19-29**	**30-36**	**36-40**

[68] The concept of normal distribution, which is often used in social sciences, provides information on the distribution of the frequencies of occurrences of a certain score on a test, with the highest frequencies usually occurring around the mean (McNamara 2000:62-63).

Based on the scores presented in Table17, the participants in the experimental group were divided into the 4 proficiency groups: Beginners, Low-Intermediate, High-Intermediate and Advanced. The statistical information about their performance on the cloze test is presented in Table 18 below.

Table 18: Mean and SD of the participants in the experimental group according to the cloze test scores

Proficiency	No	Mean	SD	Actual Score Range
Advanced	6	34.17	3.82	30-40
High-Intermediate	9	24.56	3.84	19-29
Low-Intermediate	9	12	3.12	7-15
Beginners	5	2.8	2.28	0-5

In order to demonstrate that the difference in the mean scores on the cloze test is statistically significant and that the placement of the participants into the four proficiency groups was not done by chance, I used a statistical procedure called a one-way Analysis of Variance (ANOVA) and a post-hoc test (Tukey HSD).[69] A one-way ANOVA allows us to compare the means among the groups and to show whether the difference in the means is statistically significant. If the difference is statistically significant, a post-hoc test (e.g., Tukey HSD) is applied to identify the location or the source of the difference (Mackey and Gass 2005:274-275). In this study, a one-way ANOVA shows a statistically significant difference between the control

[69] In this study, a one-way ANOVA as well as other statistical procedures were run with the help of a statistical software called Statistical Package for the Social Sciences (SPSS) (SPSS Statistics 21 and 22).

group and the experimental group $F(4, 30) = 128.970$, $p < 0.001$.[70] A post-hoc test (Tukey HSD) also shows that the experimental groups are different from each other and from the control group ($p < 0.001$) with the exception of the Advanced group. The post-hoc test (Tukey HSD) shows no statistically significant difference between the Control group and the Advanced group ($p = 0.252$; $p > .05$).

The results of ANOVA show that the placement of the participants into the four proficiency groups was not done by chance, as the means of the groups on the cloze test are significantly different from each other and from the control group with the exception of the Advanced group. The high performance of the participants of the Advanced group on the cloze test shows that their performance on the cloze test is not significantly different from the performance of the NSs included into the control group. Because the cloze test is used in this study as a measure of the overall language proficiency, it can be concluded that based on the results of the cloze test, the language proficiency of the participants of the Advanced group is rather high.

5.2 Results

This section presents the analysis of the results obtained by the participants on the following experimental tasks used in the study: the Logical Entailment (LE) task, the

[70] ANOVA results provide an *F* value and a *p* value. The *F* value is a ratio of the amount of variation between the groups to the amount of variation within the groups (Brown 1988, Mackey and Gass 2005). In this case, the *F* value is large, as *F* equals 128.970. This means that the variation between the groups is larger than the variation within the groups. This tells us that the means are statistically significant and the groups are significantly different from each other. The *p* (probability) value provides information as to whether or not the difference in group performance on the cloze test is due to chance. The commonly accepted level for significance in L2 research, which is known as alpha level, is .05. The actual *p* value obtained as a result of one-way ANOVA should be lower than the established alpha level in order to reject the null hypothesis that suggests that there is no difference in the means. In this case, *p* =.000; thus, the result is significant at the .05 level (i.e. $p < .001$). In this study, the results are reported according to the established conventions in research in social sciences including research in L2 acquisition. Specifically when reporting the results of ANOVA, it is necessary to report the *F* value, degrees of freedom (*df*) and the *p* value (see e.g., Yockey 2007).

Grammaticality Judgement (GJ) task and the Elicited Production (EP) task for Condition 1 and Condition 2 verbs, respectively. Recall that Condition 1 verbs take direct objects marked with structural Accusative case that is linked to the compositional event structure of the base form of Condition 1 verb. The base form of Condition 1 verb is considered to be compositionally determined when its telicity is affected by a telic or a lexical prefix. Condition 2 verbs assign lexical case to their direct objects. The base form of Condition 2 verbs is not compositionally determined. Condition 2 verbs can merge only with superlexical prefixes that do not affect their telicity.

5.2.1 Results: The LE task

Recall from chapter 4, section 4.5.3 that on the LE task the participants were asked to differentiate between telic and atelic predicates in Russian by showing their knowledge that atelic and telic predicates give rise to different logical inferences. Table 19 below shows the percentage of the correctly inferred sentences on the LE task.

Table 19: Percentage of the correctly inferred sentences as telic or atelic on the LE task

Proficiency	Means (in percentages)	SD
NS (N=6)	90.67	9.6
Advanced (N=6)	81.17	17.31
High-Intermediate (N=9)	73.89	18.96
Low-Intermediate (N=9)	74.56	13.63
Beginner (N=5)	50.00	24.40
Total (N=35)	74.77	19.95
Total (experimental group) (N=29)	71.48	20.05

By making correct logical inferences on the LE task, the participants in the experimental group also demonstrate their knowledge that in Russian telicity is marked on the prefix for Condition 1 verbs. However, not all prefixes act as telicity markers. Condition 2 verbs of the LE task were perfective atelic verbs prefixed with the superlexical prefix *po-* that changes their perfectivity but not their telicity. The base form of Condition 2 verbs is not compositionally determined and they remain inherently atelic despite the presence of a perfective prefix.

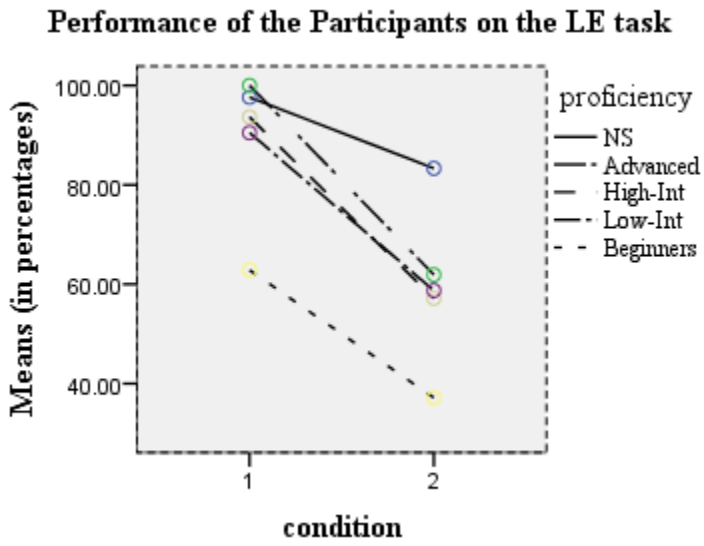
Table 20 below presents the performance of the participants on Condition 1 and Condition 2 verbs of the LE task.

Table 20: Performance of the participants on Condition 1 and Condition 2 verbs of the LE task

Proficiency	Condition 1 and Condition 2 verbs	Means (in percentages)	SD
NSs	1	97.62	5.83
	2	83.33	16.7
Advanced	1	100	0
	2	61.9	34.60
High-Intermediate	1	93.65	14.48
	2	57.14	27.66
Low-Intermediate	1	90.48	12.37
	2	58.73	30.68
Beginners	1	62.82	32.89
	2	37.14	21.67
Total (experimental groups)	1	88.67	20.3
	2	55.17	29

Figure 1 below shows a decrease in the mean scores obtained by the participants on Condition 2 verbs of the LE task.

Figure 1: Performance of the participants on Condition 1 and Condition 2 verbs of the LE task (in percentages)



Based on the comparison of the mean scores obtained by the participants on the LE task, the participants in the experimental group show better results on Condition 1 verbs of the LE task. There is a considerable decline in the mean scores for the Advanced group (100% vs. 62%), High-Intermediate group (94% vs. 58%), Low-Intermediate group (90% vs. 59%) and Beginners (63% vs. 37%). The results obtained by the participants on Condition 1 and Condition 2 verbs of the LE task are discussed in more detail in chapter 6.

5.2.2 Results: The GJ task

Recall from the previous discussion that on the GJ task the participants were asked to demonstrate their knowledge that in Russian, structural Accusative case is aspectually relevant. Specifically, they were asked to make grammaticality judgments about structural Accusative case marking on DP arguments of Condition 1 verbs and lexical case marking on DP arguments

of Condition 2 verbs. Table 21 below presents the overall performance of the participants on the GJ task.

Table 21: Percentage of the correctly judged sentences on the GJ task

Proficiency	Means (in percentages)	SD
NS (N=6)	98	3.1
Advanced (N=6)	84.33	7.17
High-Intermediate (N=9)	62.44	12.32
Low-Intermediate (N=9)	57.33	17.67
Beginner (N=5)	51.20	15.66
Total (N=35)	69.37	20.76
Total (experimental group) (N=29)	63.45	17.59

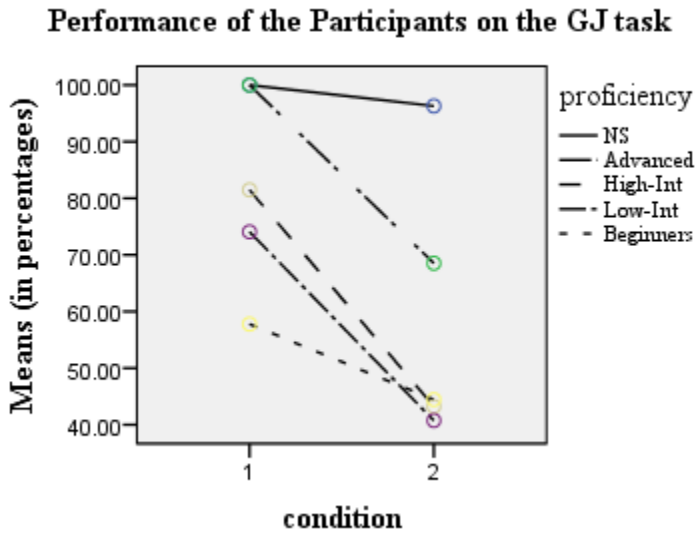
Table 22 presents the performance of the participants on the GJ task, Condition 1 and Condition 2 verbs, respectively.

Table 22: Performance of the participants on Condition 1 and Condition 2 verbs of the GJ task

Proficiency	Condition	Means (in percentages)	SD
NSs	1	100	0
	2	96.3	5.74
Advanced	1	97.2	0
	2	68.52	14.77
High-Intermediate	1	81.5	12.42
	2	43.21	21.11
Low-Intermediate	1	74.07	20.03
	2	40.74	20.03
Beginners	1	57.78	14.5
	2	44.44	27.22
Total (experimental group)	1	78.93	19.32
	2	47.89	22.44

Figure 2 below shows a decrease in the mean scores obtained by the participants on Condition 2 verbs of the GJ task.

Figure 2: Performance of the participants on Condition 1 and Condition 2 verbs of the GJ task (in percentages)



Based on the comparison of the mean scores of Condition 1 and Condition 2 verbs of the GJ task, the participants in the experimental group perform better on Condition 1 verbs. There is a considerable decline in the mean scores for the Advanced group (97% vs.69%), High-Intermediate group (82% vs. 43%), Low-Intermediate group (74% vs. 41%) and Beginners (58% vs. 44). The performance of the participants on Condition 1 and Condition 2 verbs of the LE task is discussed in more detail in chapter 6.

5.2.3 Results: The EP task

Recall that on the EP task the participants were asked to demonstrate their knowledge that structural Accusative case is aspectually relevant in Russian and supply the correct case marking for Condition 1 verbs. In addition, they were also asked to supply lexical case marking for

inherently atelic Condition 2 verbs. Table 23 below presents the performance of the participants on the EP task.

Table 23: Percentage of the correctly supplied case on the EP task

Proficiency	Means (in percentages)	SD
NS (N=6)	100	0
Advanced (N=6)	75	17.48
High-Intermediate (N=9)	51.85	17.57
Low-Intermediate (N=9)	24.07	8.78
Beginner (N=5)	16.67	0
Total (N=35)	51.91	32.03
Total (experimental group) (N=29)	41.95	25.44

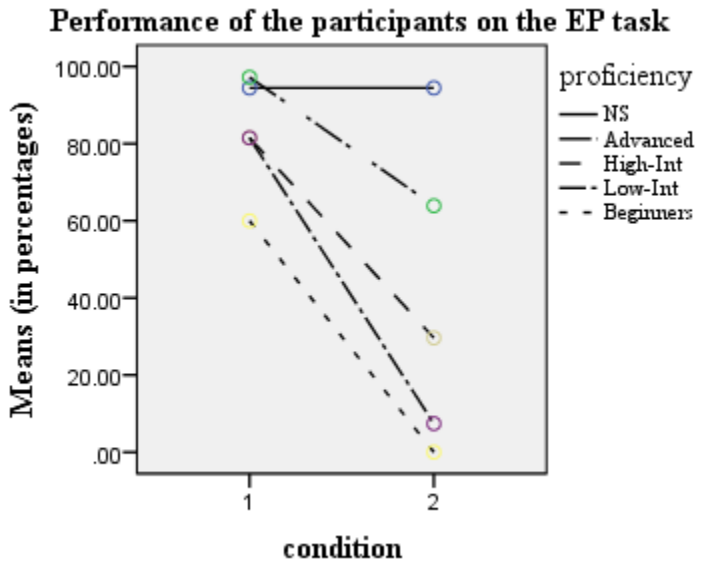
Table 24 below presents the performance of the participants on Condition 1 and Condition 2 verbs of the EP task.

Table 24: Performance of the participants on the EP task

Proficiency	Condition	Means (in percentages)	SD
NSs	1	94.4	8.6
	2	100	0
Advanced	1	97.2	6.8
	2	75	17.5
High-Intermediate	1	81.5	19.4
	2	51.9	17.6
Low-Intermediate	1	81.5	13
	2	24	8.8
Beginners	1	60	19
	2	16.7	0
Total (experimental group)	1	81.03	18.75
	2	41.95	25.44

Figure 3 below shows a decrease in the mean scores obtained by the participants on condition 2 of the EP task.

Figure 3: Performance of the participants on the EP task (in percentages)



Based on the comparison of the mean scores of Condition 1 and Condition 2 verbs of the EP task, the participants in all experimental groups perform better on Condition 1 verbs. There is a considerable decline in the mean scores for the Advanced group (97% vs.69%), High-Intermediate group (82% vs.43%), Low-Intermediate group (74% vs. 41%) and Beginners (58% vs. 44%).

5.3 Results of the repeated measures ANOVA[71]

A repeated measures ANOVA, a type of General Linear Model, is run on the results of the three tasks with the type of verb (Condition 1 and Condition 2 verbs) as a within-subject

[71] A repeated measures ANOVA is a complex type of analysis. When this type of analysis is applied, a more accurate overall picture of the relationship among the variables is obtained (Ondrack, personal communication, June 25, 2014).

factor and the proficiency group as a between-subject factor. The information presented below shows the statistical information for each experimental task.

5.3.1 The LE task

The mean scores for the type of verbs used (i.e. Condition 1 and Condition 2) differ significantly ($F(1,30) = 29.364$, $p < .001$). The mean scores for the proficiency differ significantly ($F(4,30)=4.527$, $p <.05$). The post-hoc test (Sidak) shows that the difference is between NSs and Beginners ($p < 0.05$). The interaction between the type of condition used and proficiency level is not significant for the LE task ($p = .655$).

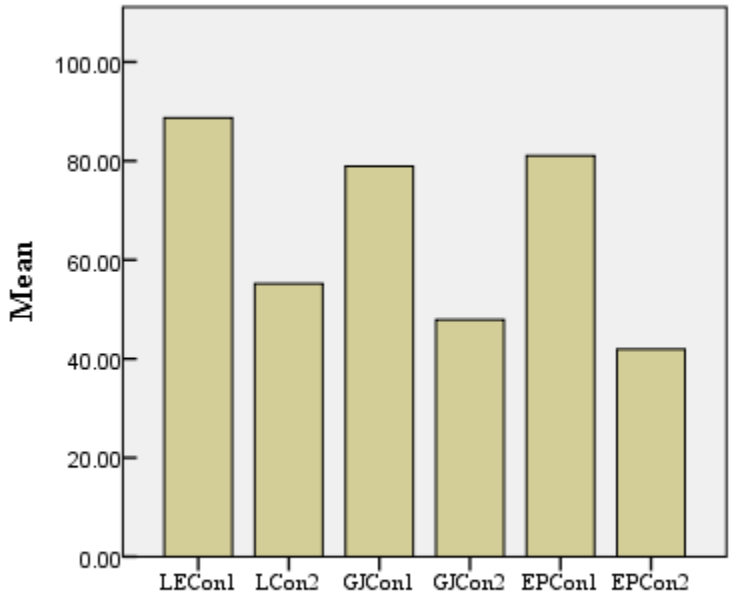
5.3.2 The GJ task

The mean scores for the type of condition used (i.e. Condition 1 and Condition 2 verbs) differ significantly ($F(1,30) = 44.974$, $p < .001$). The mean scores for proficiency differ significantly ($F(4,30) = 14.681$, $p < .001$). The post-hoc test (Sidak) shows that the difference is between the NSs group and all the experimental groups ($p < .001$) except the Advanced group. The interaction for the type of verbs by group is significant ($F(4,30) = 3.415$, $p < .05$). The post-hoc test (Sidak) shows that for Condition 1 verbs, the difference is found between the NSs group and the Low-Intermediate group ($p < .05$), and the NSs group and the Beginners ($p <. 001$). For Condition 2 verbs, the difference is found between the NSs, the High-Intermediate ($p < .001$), Low-Intermediate ($p < .001$) and Beginners ($p = .001$).

5.3.3 The EP task

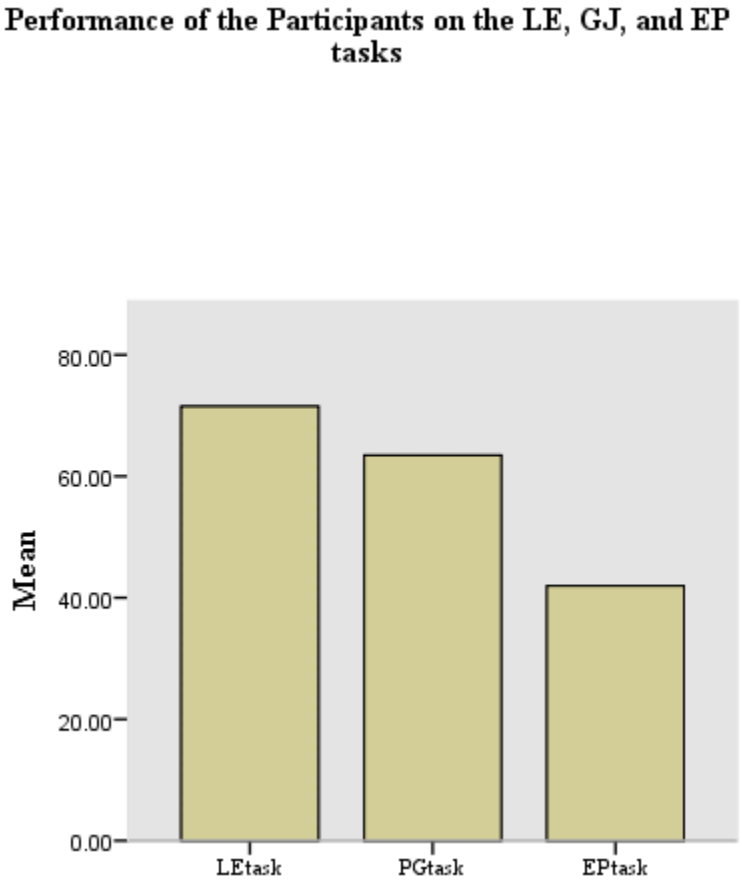
The mean scores for the type of verbs used (i.e. Condition 1 and Condition 2 verbs) differ significantly ($F(1,30) = 82.096$, $p < .001$). The mean scores for the proficiency differ significantly ($F(4,30) = 35.056$, $p < .001$). The post-hoc test (Sidak) shows that the difference is between the NSs and the High-Intermediate, Low-Intermediate and Beginners groups ($p < .001$). The interaction for the type of verbs used by group is significant ($F(4,30) = 11.137$, $p < .001$). The post-hoc test (Sidak) shows that for Condition 1 verbs, the difference is between the NSs and the Beginners ($p < .05$). For Condition 2 verbs, the difference is between the NSs and all the experimental groups including the Advanced group: for the NSs and the Advanced groups ($p < 0.05$); for the NSs and the High-Intermediate, Low-Intermediate and Beginners ($p < .001$). The results of the experimental study demonstrate that on the three tasks there was a statistically significant effect for the type of verbs used (i.e. Condition 1 or Condition 2 verbs). The results presented in this chapter also show that the participants perform better on Condition 1 verbs than Condition 2 verbs on the three experimental tasks, which is demonstrated by the graph presented in Figure 4.

Figure 4: Performance of the participants on Condition 1 verbs and Condition 2 verbs of the three experimental tasks



The results of the study also show that the participants demonstrated the best performance on the LE task, which is followed by the GJ task and the EP task, respectively. However, the interaction between the type of condition used and the proficiency group is not significant for the LE task and is significant for the GJ task and the EP task. The overall performance of the participants on the three experimental tasks is demonstrated by the graph presented in figure 5 below:

Figure 5: The overall performance of the participants on the LE, GJ, and EP tasks



The results of the three experimental tasks are discussed in chapter 6.

5.3 Chapter Summary

In this chapter I presented the results of the three experimental tasks (i.e. LE, GJ and EP tasks) that were developed to test the research hypotheses proposed in chapter 4. I started this chapter by discussing the procedure of dividing the participants into the following proficiency groups: Advanced, High-Intermediate, Low-Intermediate, and Beginners. Then I presented the overall results of the LE, GJ and EP tasks, as well as the results for Condition 1 and Condition 2

verbs for each task. This description of the results was followed by the description of the statistical procedure known as the repeated measures ANOVA that was run on the results of the three experimental tasks with the type of verb (i.e. Condition 1 and Condition 2) as a within-subject factor and the proficiency group as a between-subject factor. In this chapter, I presented the statistical information obtained as the result of this procedure for each experimental task.

Chapter 6: Discussion

The purpose of this chapter is to discuss the empirical results of the study; specifically, I discuss the results of the LE task in section 6.1, the results of the GJ task in section 6.2, and the results of the EP task in section 6.3. Section 6.4 provides an explanation as to why the participants of the experimental group performed better on Condition 1 verbs than on Condition 2 verbs across the three experimental tasks. Section 6.5 reassesses the research hypotheses proposed for the study in light of the results obtained from the experimental tasks. Section 6.6 concludes the chapter.

6.1 Discussion of the results: The LE task

On the LE task, the participants were asked to differentiate between atelic and telic events by providing logical inferences of the sentences with Condition 1 and Condition 2 verbs. Recall from the discussion of Condition 1 and Condition 2 verbs in chapter 2, section 2.5.3, and chapter 4, section 4.4 that the event structure of the base form of Condition 1 verbs is compositionally determined. This means that the imperfective base form of Condition 1 verbs can merge with telic and lexical prefixes that change their event structure from atelic to telic. Direct objects of Condition 1 verbs are marked with structural Accusative case. The event structure of the base form of inherently atelic Condition 2 verbs is not compositionally determined. This means that the base form of Condition 2 verbs can merge only with superlexical prefixes (e.g., the superlexical prefix *po*-) that do not change their event structure (i.e. Condition 2 verbs remain atelic). Direct objects of inherently atelic Condition 2 verbs are marked with lexical case.

Recall from chapter 4, section 4.4 that on the LE task the participants were asked to make logical inferences of telic and atelic sentences, where the logical inference from a progressive tense to a non-progressive tense is not possible for Condition 1 verbs but is possible for inherently atelic Condition 2 verbs. By making correct logical inferences, the participants would demonstrate knowledge of telic and atelic events in Russian even in those cases when a verbal prefix (i.e. the superlexical prefix *po*-) functions as a perfectivity marker but not as a telicity marker.

A comparison of the mean scores of the participants included in the experimental group showed that 71% of the participants made correct logical inferences of the sentences with Condition 1 and Condition 2 verbs, which means that the participants were able to differentiate between telic and atelic events in Russian. In relation to Condition 1 verbs, the percentage of correctly inferred sentences was 89%, and in relation to Condition 2 verbs, the percentage of the correctly inferred sentences was 55%. The statistical procedures discussed in chapter 5, section 5.3 showed that there was a statistically significant effect for the type of verbs used on the LE task (i.e. Condition 1 verbs vs. Condition 2 verbs) and for the proficiency level; however, the difference was found only between NSs and Beginners. The relationship between the type of verbs used (i.e. Condition 1 verbs vs. Condition 2 verbs) and the proficiency level was not statistically significant.

By showing that atelic and telic events give rise to different logical interpretations at the rate of 71%, L2 learners of Russian demonstrated that they have access to the interpretable semantic feature [telicity] irrespective of its unique morphological realization in Russian on the verbal prefix. They also demonstrated knowledge of the fact that in Russian, the interpretable lexical aspect semantic feature [telic] is combined with the feature [perfective] usually associated

with grammatical aspect and that the following combination of features is possible in Russian [+telic, +perfective] and [-telic, +perfective].

The empirical evidence obtained on the LE task about the general accessibility of the semantic interpretable features [±telic] and [±perfective] is consistent with the theoretical claim made in the generative literature about the innateness of the basic architecture of the conceptual structure (see e.g., Jackendoff 2002:417, Slabakova 2006). This claim implies the general accessibility to L2 learners of the interpretable features that have universal content of meaning, which is mapped to different linguistic forms in different languages. In Russian, the linguistic form, which is associated with the two interpretable features [±telicity] and [±perfective], is the verbal prefix. The results of the LE task are also consistent with the empirical evidence provided in Slabakova (2005) and Nossalik (2009) to support the claim about the accessibility of interpretable features by adult L2 learners.

The second question discussed in this section addresses the difference of logical inferences for Condition 1 and Condition 2 verbs. Specifically, sentences with Condition 1 verbs, where the features telicity and perfectivity have the same value (i.e. [+telic, +perfective]) and are realized on a telic or lexical prefix, were correctly inferred at the rate of 89%. In contrast, sentences with Condition 2 verbs, where the features telicity and perfectivity have different values (i.e. [-telic, +perfective]) and only the feature perfectivity was realized on a perfective prefix, were correctly interpreted at the rate of 55%.

As discussed in chapter 2, section 2.2.4, there is a general tendency in Russian to mark perfectivity and telicity on the prefix that is added to the imperfective base form of the verb. In this case, the prefix is used as a telicity *and* as a perfectivity marker. According to Slabakova (2005:67), such prefixes "constitute the large majority of all perfective prefixes in the language;

in a sense, they represent a rule", whereas superlexical prefixes (e.g., *po-*) constitute exceptions to the rule.[72] The tendency in Russian to have one marker for telicity and perfectivity is in line with the theoretical principle of distributional bias discussed in Comrie (1976), Forsyth (1970), and Pereltsvaig (2008). According to the distributional bias principle, telicity and perfectivity in Russian seem to coincide in the following way: when the verb is telic, it appears in the perfective form, and when the verb is atelic, it appears in the imperfective form. Therefore, the cluster of features with the same values (i.e. [+telic, +perfective]) of Condition 1 verbs is more prototypical and the least marked cluster of features than a less prototypical and more marked cluster of features with the opposite values (i.e. [-telic, +perfective]) of Condition 2 verbs.

A better performance of the participants on Condition 1 verbs can be explained through the Subset Principle (Wexler and Manzini 1987, Slabakova 2002) discussed in chapter 3. The Subset Principle is a learning strategy that determines the hierarchy of markedness, according to which a less marked feature is acquired before a more marked feature.[73] Since Condition 1 verbs have a less marked cluster of features, which is [+telic, +perfective], and Condition 2 verbs have a more marked cluster of features, which is [-telic, +perfective], the results show that Condition 1 verbs were acquired before Condition 2 verbs. The results of the LE task also show that the participants were able to acquire Condition 2 verbs. Specifically, the results demonstrate that the percentage of correctly inferred sentences for Condition 2 verbs on the LE task was 37% for Beginners,

[72] One might argue here against the use of the word 'a rule' while describing this phenomenon. Perhaps a better term to use here will be 'a tendency', as one still has to account for the cases where telicity and perfectivity have opposite values (i.e. [-telic, +perfective]).

[73] The concept of markedness is introduced by the Prague School of Linguistics (see e.g., Jakobson 1968, White 1989). According to Ortega (2009:37), this concept explains the co-occurrence of different linguistic properties (e.g., syntactic and phonological) within and across linguistic systems. It is believed that the co-occurrence of properties is not random and it is ranked from the most basic and frequently used properties of a linguistic system (unmarked) to more complex and rare (marked). There is an assumption made in the literature on L1 acquisition that if a language has two forms (marked and unmarked), children start the process of learning with the unmarked form and then acquire the marked one.

approximately 58% for Low-Intermediate and High-Intermediate, and 62% for Advanced L2 learners of Russian. Only 20% of the participants in the Beginner group were able to obtain the score of 70% while making inferences for the sentences that included Condition 2 verbs; for the Low-Intermediate and High-Intermediate groups, the percentage of the participants who inferred the sentences with Condition 2 verbs correctly with the score of 70% and up was 40%, and for the Advanced group it was 50%. This shows a gradual emergence of the knowledge of Condition 2 verbs.

6.2 Discussion of the results: The GJ task

On the GJ task, the participants were asked to judge the grammaticality of 18 pairs of sentences with Condition 1 and Condition 2 verbs and their direct objects. Recall from the discussion in chapter 4, 4.6.3 that each pair of sentences of the GJ task included a grammatical and an ungrammatical sentence. For Condition 1 verbs, a grammatical sentence included a direct object marked with structural Accusative case and an ungrammatical sentence where the same direct object was incorrectly marked with non-structural lexical case. For Condition 2 verbs, a grammatical sentence included a direct object marked with lexical case and an ungrammatical sentence where the same direct object was incorrectly marked with structural Accusative case. The purpose of the GJ task was to test whether the L2 learners of Russian know that structural Accusative case is aspectually relevant and is linked to the compositional event structure of the base form of a verb.

A comparison of the mean scores of the participants included in the experimental group on the GJ task showed that the participants were able to judge correctly 63% of all the sentences included into the GJ task. Their performance on the GJ task is slightly lower than their

performance on the LE task (71% on the LE task and 63% on the GJ task). In relation to Condition 1 verbs and their direct objects, the percentage of correctly judged sentences was 79%, and in relation to Condition 2 verbs and their direct objects, the percentage of correctly judged sentences was 48%. The statistical procedures used to analyse the results of the GJ task discussed in chapter 5, section 5.3 showed that there was a statistically significant effect for the type of verbs (i.e. Condition 1 verbs vs. Condition 2 verbs) used on the GJ task and for the proficiency level. The relationship between the type of verbs used (i.e. Condition 1 verbs vs. Condition 2 verbs) and the proficiency level was also statistically significant. For Condition 1 verbs, the difference was found between NSs, Low-Intermediate group, and Beginners. For Condition 2 verbs, the difference was found between NSs and all of the experimental groups with the exception of the Advanced Group.

6.3 Discussion of the results: The EP task

If on the GJ task the participants were asked to judge the grammaticality of sentences with Condition 1 and Condition 2 verbs, then on the EP task they were asked to supply the correct case morphology of the DP arguments of Condition 1 and Condition 2 verbs. In other words, the GJ task was a task that tapped into the competence of L2 learners of Russian, whereas the EP task checked their performance (i.e. their ability to supply the correct case form for structural Accusative case or lexical case in a written production task). The overall mean score of the participants on the EP task was 42%. It was lower than the overall scores obtained by the participants on the LE task (i.e. 71%) and GJ task (i.e. 63%). The mean score of the participants for Condition 1 verbs of the EP task was 81%, whereas for Condition 2 verbs, the mean score was 42%. The statistical procedures discussed in chapter 5, section 5.3 showed that in the EP

task, there was a statistically significant effect for the type of verbs used (i.e. Condition 1 verbs vs. Condition 2 verbs) and for the proficiency level. For Condition 1 verbs, the difference was found only between NSs and Beginners and for Condition 2 verbs, the difference was found between all the experimental groups including the Advanced group. Similar to the results of the LE task and GJ task, in the EP task, the participants performed better on the direct objects of Condition 1 verbs than on the direct objects of Condition 2 verbs.

6.4 Discussion of the results: Condition 1 verbs versus Condition 2 verbs

This section provides an explanation of the better performance of the participants on Condition 1 verbs than on Condition 2 verbs across the three experimental tasks. In section 6.1, I discussed the question as to why the participants were better on Condition 1 verbs than on Condition 2 verbs of the LE task. In relation to the acquisition of lexical aspect, it seems that the participants first acquire a less marked and a more prototypical cluster of features and then a more marked and less prototypical cluster of features. In relation to the GJ and EP task that are designed to tap into knowledge of the L2 case system, the explanation is based on the difference between Russian and English in the mechanism of case assignment.

Recall from chapter 2, section 2.5 that in Russian structural Accusative case is linked to a feature present on *v*; specifically, the interpretable but unvalued feature [quantized]. Richardson (2007) assumes that *v* has an interpretable but unvalued feature [quantized] that is valued against the aspectual feature [+quantized] or [-quantized] present on the elements within the *v*P. In Russian, a lexical or a telic prefix carries the feature [+quantized]. The function of a telic or a lexical prefix in Russian is similar to that of the quantized internal DP argument in English in that a lexical or a telic prefix in Russian and the internal quantized DP argument in English

change the event structure from atelic to telic. For inherently atelic verbs (i.e. Condition 2 verbs), their base forms come from the lexicon with the feature [-quantized]. Recall that inherently atelic verbs cannot merge with lexical or telic prefixes that have the feature [+quantized]. In the absence of the projection InnerAspP/PrefP, the interpretable unvalued feature on *v* acquires its value [-quantized] from the closest element it c-commands; specifically, from the feature [-quantized] present on V. Recall also that when the *v*P gets the feature value [+quantized] as a result of the operation Agree that allows for feature valuing between the interpretable unvalued aspectual feature [quantized] present on little *v* and the feature [+quantized] present on the Head of the projection InnerAsp/PrefP, structural Accusative case is licensed as a 'side effect' of the operation Agree. The case assigning mechanism for Condition 1 verbs is similar to the case assigning mechanism in English. The only difference is that in English, the feature [+quantized] is present on the internal DP argument of specified cardinality rather than on the lexical or telic prefix, as is the case in Russian.

Similarities of the case checking mechanism in English and Russian and the presence of structural Accusative case in both languages explain the relatively high mean score (i.e. 71%) of the participants for Condition 1 verbs of the GJ task. Recall that for Condition 1 verbs of the GJ task, a statistically significant difference was found between NSs, Low-Intermediate and Beginner Groups, whereas for Condition 1 verbs of the EP task, the difference was found between NSs and Beginners. Structural Accusative case is an uninterpretable feature which is present in the L1 as well as in the L2 of the participants; therefore, L2 learners show accessibility of the uninterpretable feature case, which is present in their L1.

The case assignment mechanism of the internal DP arguments used in Condition 2 verbs is different from the mechanism of case licensing in English. On the GJ task and the EP task, the

inherently atelic Condition 2 verbs assign lexical case to their DP arguments. According to Woolford (2006), lexical case is unpredictable and idiosyncratic. To illustrate the idiosyncrasy of lexical case assignment, out of the 9 verbs used in condition 2, 4 verbs assign Instrumental case, 3 verbs assign Dative case, and 2 verbs assign Genitive case. The low performance of the participants on Condition 2 verbs (i.e. 48%) can be explained by the absence of lexical case assignment mechanism in English. In this case, the only learning mechanism that is available to L2 learners is not language-specific. While learning lexical case, L2 learners have to use the general cognitive mechanisms available to them (e.g., memory). The absence of the lexical case assignment mechanism in English as well as the idiosyncrasy and unpredictability of lexical case explain the low performance of the participants on Condition 2 verbs and the statistically significant difference between NSs and all the experimental groups including the Advanced group.

The results obtained on the GJ and EP tasks suggest that the UG principles that govern structural case assignment are accessible by L2 learners through L1. The results obtained on the GJ task and EP task seem to be consistent with the results of the studies on the acquisition of case by L1 learners.[74] The results of the studies on L1 acquisition of the case system that fall within the generative framework (see e.g., Babyonyshev 1993, Schütze 1996) and non-generative framework (see e.g., Gvozdev 1961, as cited in Polinsky 2007) show that children acquire structural case (i.e. Nominative and Accusative) prior to lexical case. The precedence of the acquisition of structural case over lexical is explained as follows. Recall that structural case is

[74] It is interesting that in the studies on speech disorders (i.e. aphasia), the aphasic participants have less problems with structural case (Nominative and Accusative) and more problems with lexical/ inherent case (i.e. Dative and Instrumental) (Lamers and Ruigendijk 2009:431). The difference is explained by the automatic assignment of structural Accusative case once the syntactic structure has been built. Lexical case, which is assigned by a specific lexeme on a lexeme by lexeme basis cannot be assigned automatically, and in those cases when the assigner (e.g., a verb) is present, a specific lexical case should be retrieved and supplied in time (in the case of production), which is not always possible for people affected by aphasia.

associated with specific structural positions in finite clauses in Nominative/ Accusative languages (e.g., structural Nominative occupies several such positions though structural Nominative is associated with the highest nominal argument in finite clauses in Nominative/ Accusative languages). When L1 children start acquiring case in Russian, UG principles, which constrain such associations between structural case on the DP and its position in a sentence, and the input available to L1 learners, help them to establish the links between structural cases and their positions. Once the links are established, structural case is used correctly. According to Babyonyshev (1993:38), "…children have full mastery of nominative and accusative Cases, from the moment of the appearance of the arguments that require them".

In contrast to structural case, lexical case is acquired differently because it is not associated with a specific structural position in finite clauses but rather with a specific lexeme (i.e. a verb or a preposition) which should be learned by L1 (and L2 learners) lexeme by lexeme, as claimed by Eisenbeiss et al. (2009:372).

Assume that adult L2 learners, in a manner similar to children acquiring their L1, have access to UG principles. Their access to UG principles takes place through their L1. In this case, the L2 learners of Russian can access the uninterpretable feature [uCase] from their L1. This theoretical assumption is confirmed by the empirical evidence obtained from the performance of the L2 learners of Russian on Condition 1 verbs of the GJ and EP tasks with L2 learners supplying the correct structural case at the rate of 71% (i.e. Condition 1 verbs of the GJ task). In relation to the lexical case assigned by Condition 2 verbs included in the GJ and the EP task, L2 learners of Russian, in a manner similar to children learning lexical case in their L1, should learn it on an item-by-item basis due to the fact that lexical case assigned by the inherently atelic Condition 2 verbs is idiosyncratic and unpredictable. The idiosyncrasy and unpredictability of

lexical case that should be learned on an item-by-item basis explain the low performance of the participants on Condition 2 verbs of the GJ and the EP task.

6.5 Research hypotheses revisited

The purpose of this section is to reassess the hypotheses formulated for the study and presented in chapter 4 given the results of the empirical study discussed in chapters 5 and 6.

Hypotheses 1 and 1a: Hypotheses 1 and 1a focused on the acquisition of the telicity feature.

Taking into consideration the theoretical assumptions about the accessibility of the interpretable universal semantic feature [telic] (see e.g., Slabakova 2005 and Nossalik 2009), hypothesis 1 predicted that in their performance on the LE task, L2 learners would have no difficulty in distinguishing between telic and atelic events in Russian even in those cases where the superlexical prefix (e.g., *po-*) is used as a marker of perfectivity, but not of telicity (i.e. for Condition 2 verbs).

Following the Subset Principle by Wexler and Manzini (1987), and Slabakova (2002), hypothesis 1a predicted that L2 learners would perform better on Condition 1 verbs where the features [telic, perfective] have the same value, specifically [+telic, +perfective] (e.g., *vy-igrat'* 'PF-play' 'win') than on the sentences where the features [telic, perfective] have different values, specifically [-telic, +perfective] (e.g., *po-ljubovat'sja* 'PF-admire').

Hypothesis 1 was confirmed. The percentage of the correctly inferred sentences as telic or atelic on the LE task was at the rate of 71%, which means that the participants were able to differentiate between telic and atelic events in Russian.

Hypothesis 1a was partly confirmed. In their acquisition of lexical aspect in Russian, the participants behaved as predicted by the Subset Principle by showing better results on the

acquisition of a less marked cluster of features with the same values (i.e. [+telic, +perfective]) than on the acquisition of a more marked cluster of features (i.e. [-telic, +perfective]). The acquisition of the cluster of features [+telic, +perfective] was at the rate of 89%, whereas the acquisition of the cluster of features [-telic, +perfective] was at the rate of 55%, which is slightly more than a chance level. It was explained that in the process of acquisition, L2 learners first start with the acquisition of less marked features and then acquire more marked features. The evidence that the cluster of more marked and less prototypical cluster of features can be acquired comes from the rate of acquisition of the Advanced group of learners, which is equal to 62%.

However, the prediction that the participants would be able to differentiate between atelic and telic events even in those cases where the superlexical prefix is used as a marker of perfectivity, but not telicity was not borne out. The rate of correctly inferred sentences for Condition 2 verbs was 55%, which is slightly more than a chance level.

Hypothesis 2: Hypothesis 2 focused on the acquisition of the case feature. Taking into consideration the theoretical assumption concerning the accessibility of the uninterpretable feature [uCase], as a feature present both in L1 and L2, it was hypothesized that L2 learners would perform better on structural case assignment than on lexical case assignment.

Hypothesis 2 was confirmed. L2 learners showed no problems with structural Accusative case assignment of Condition 1 verbs used in the GJ and EP tasks. The performance of the participants showed that the L2 learners supplied the correct structural Accusative case at the rate of 79% on the GJ task and at the rate of 81% on the EP task. L2 learners experienced more difficulties with lexical case assignment. The rate of lexical case assignment was 48% for the GJ task and 42% for the EP task.

Hypothesis 3: Hypothesis 3 focused on the acquisition of the combination of case and telicity features. In terms of the acquisition of the cluster of features [+telic, +perfective] and [uCase: ACC] (i.e. Condition 1 verbs and their direct objects), on the one hand, and [-telic, +perfective] and [uCase: lexical] (i.e. Condition 2 verbs and their direct objects), on the other, it was hypothesized that L2 learners would show better performance on the first cluster of features than on the second one since the cluster of features [+telic, +perfective] and [uCase: ACC] is accessible through the learners' L1.

Hypothesis 3 was confirmed since the participants showed better performance on the acquisition of Condition 1 verbs and their direct objects than on the acquisition of Condition 2 verbs and their direct objects across the three experimental tasks. On the LE task, the performance of the participants was at the rate of 89% for Condition 1 verbs and 55% for Condition 2 verbs. On the GJ task, the performance of the participants was at the rate of 79% for Condition 1 verbs and 48% for Condition 2 verbs. On the EP task, the performance of the participants was at the rate of 81% for Condition 1 verbs and 42% for Condition 2 verbs. Overall, the participants showed better performance on the acquisition of the cluster of features present in their L1 (i.e. [+telic, +perfective] and [uCase: ACC]) than on the acquisition of the cluster of features not found in their L1 (i.e. [-telic, +perfective] and [uCase: lexical].

Hypothesis 4: Hypothesis 4 focused on the asymmetry between production and comprehension. It was predicted that the L2 learners would perform better on the GJ task than on the EP task, where they have to supply the morphological marker for structural Accusative case or for lexical case. Recall that according to the MSIH (White 2008), the failure to supply the correct morphological inflection is not equated with deficiency of the purely syntactic knowledge (i.e. knowledge of case assignment mechanisms) of L2 learners of Russian.

Hypothesis 4 was confirmed. Recall that on the GJ task, which was a comprehension task, the participants were asked to judge the grammaticality of case marking on the direct objects of Condition 1 and Condition 2 verbs. On the EP task, which was a production task, the participants were asked to supply the correct case inflection for the direct objects of Condition 1 and Condition 2 verbs. The results of the study showed that the overall performance of the participants was better on the comprehension GJ task than on the production EP task. On the GJ task, the participants made correct judgments about case marking on the direct objects of Condition 1 and Condition 2 verbs at the rate of 63%. On the EP task, they supplied the correct case morphology at the rate of 42%. These findings seem to be in line with the proposal made in the literature (see e.g., Prévost and White 2000, Slabakova 2009a, and Tasseva-Kurktchieva 2015) about production as a more cognitively demanding process and as such, production is more prone to mapping problems between syntactic structures and their morphological realizations.

It should be noted here that L2 learners were slightly better on supplying the case morphology for the direct objects of Condition 1 verbs than on the grammaticality judgement of case morphology (81% on the EP task vs. 79% on the GJ task). For the direct objects of Condition 2 verbs, the learners showed slightly better results on comprehension than on production (48% for the GJ task vs. 42% for the EP task). The data show that the percentage of this difference is rather small. Thus, the difference in the performance on the production and comprehension tasks for the direct objects of Condition 1 and Condition 2 verbs is 2% and 6%, respectively. Due to the small difference in the performance, I will not account for it. More data would be needed to reach a definite conclusion. Crucially, the participants performed better on comprehension than on production across the three tasks, which was predicted by Hypothesis 4.

6.6 Chapter summary

In this chapter, I discussed the performance of the participants on the LE, GJ and EP tasks. I also discussed the question as to why the participants of the experimental group performed better on Condition 1 verbs than on Condition 2 verbs. Lastly, I evaluated the research hypotheses proposed for the study in light of the empirical data obtained from the experimental tasks.

Chapter 7: Conclusion

In this dissertation, I presented the results of the empirical study that investigates the acquisition of aspect and case by English speaking adult L2 learners of Russian. Since the theoretical framework for this study is the Minimalist Program (i.e. the current research agenda in theoretical linguistics), in Chapter 2, I discussed the major theoretical constructs central to the study; more specifically, the interpretable and uninterpretable morphosyntactic features and the mechanism of their checking/ valuing. The section on Minimalism was followed by the discussion of the two theoretical concepts of aspect and case with a focus on Russian and English. In relation to aspect, I discussed the difference between lexical and grammatical aspect by providing the definitions of telicity and perfectivity. I emphasized the compositional nature of aspect by stating that the compositionality of aspect is realized differently in English and in Russian. More specifically, in English, telicity depends on the status of the verb (static vs. dynamic) and the nature of the direct object (quantized vs. non-quantized). In Russian, the status of the direct object as quantized or non-quantized is irrelevant to telicity, since telicity is realized on a lexical or telic prefix. By taking into the account the fact that prefixes play an important role in computing telicity in Russian, I presented the classification of perfective prefixes as lexical and telic, on the one hand, and superlexical, on the other. I emphasized that in Russian, a perfective prefix does not always function as a telicity marker. The discussion of prefixes was followed by presenting the two syntactic structures for telic and atelic predicates. The difference in the structures is the availability of the delimiting functional projection InnerAspP/ PerfP for telic predicates and the absence of this projection for atelic predicates. The difference between English and Russian is the following: when the functional projection InnerAspP/ PerfP is available, the function of the delimiter is performed by the quantized direct object DP in English,

whereas in Russian, a telic prefix or a lexical prefix functions as a delimiter. In chapter 2, I also discussed the following telicity tests: the adverbial modification test and the progressive tests. These tests for telicity were used throughout the dissertation to distinguish between telic and atelic predicates.

In relation to case, chapter 2 discussed the following concepts with a focus on Nominative-Accusative languages (i.e. English and Russian): abstract case, structural versus non-structural case and morphological case. I identified the differences and similarities in the case systems of English and Russian. In particular, both languages have structural case (i.e. Nominative and Accusative); however, only Russian has non-structural case (i.e. lexical and inherent case).

The section on case was followed by a discussion of the proposal on the relationship between lexical aspect and case. More specifically, Richardson's (2007) proposal, who argues that in Russian, the alternation between structural Accusative case and lexical case depends on the compositional event structure of the base form of a verb. I explained the difference between the base forms of verbs that have compositional event structure and non-compositional event structure and presented two syntactic structures with the corresponding case valuing/ assigning mechanism following Richardson (2007) and Pesetsky and Torrego (2009). In this dissertation, I named the base forms of verbs whose event structure is compositionally determined as Condition 1 verbs and the base forms of verbs whose event structure is non-compositionally determined as Condition 2 verbs.

In chapter 3, I made the theoretical assumption that similar to L1 grammars, L2 grammars are constrained by the principles of UG and I discussed the three major hypotheses that account for morphological variability observed in the production data of L2 learners, such as

the Missing Surface Inflection Hypothesis (MSIH) by White (see e.g., 2008), the Feature Re-assembly Hypothesis by Lardiere (2008, 2009), and the Failed Functional Features Hypothesis by Hawkins (see e.g., Hawkins et al. 2008). I outlined the similarities among the hypotheses by stating that the three hypotheses assume the accessibility of universal semantic features, such as telicity, as well as the accessibility of uninterpretable features if such features are present in L2 learners' L1. The discussion of the three hypotheses was followed by a literature review on the acquisition of aspect and case by L2 learners of Russian. Following Slabakova (2005) and Nossalik (2009), I assumed that the interpretable feature [telic] is accessible by L2 learners. In relation to the acquisition of the uninterpretable feature [uCase], I used some of the findings of the empirical research on L1 acquisition of case, and the findings of the research developed within non-generative frameworks. I discussed these studies given the lack of empirical studies on the acquisition of case by adult L2 learners developed within generative approaches to SLA. The studies on case that I discussed in chapter 3 suggest that structural Accusative case is acquired before lexical and inherent cases, and that L1 and L2 learners have more problems acquiring lexical and inherent cases than structural cases (i.e. Nominative and Accusative).

Taking into account the findings of the previous empirical research, in chapter 4, I presented a description of the experiment conducted in this dissertation. I stated the research hypotheses developed within the framework of the theoretical assumptions discussed in chapter 2 and chapter 3. In addition, I outlined the differences between the study discussed in this dissertation and the previous research done on the acquisition of lexical aspect and case. I described the participants of the experimental study included in the control and experimental groups. I provided the descriptions of the tasks used in the study beginning with the cloze test that was used as a measure of language proficiency on the basis of which the participants of the

experimental group were divided into Advanced, High-Intermediate, Low-Intermediate and Beginners. The description of the cloze test was followed by a description of the three experimental tasks used in the study; more specifically, the Logical Entailment (LE) task, the Grammaticality Judgement (GJ) task and the Elicited Production (EP) task.

In chapter 5, I explained the statistical procedures used in the study and presented its results.

In chapter 6, I discussed the results of the study.

The previous studies on the acquisition of aspect by L2 learners of Russian suggest the accessibility of interpretable features. The studies by Slabakova (2005) and Nossalik (2009) investigate a more prototypical case of telicity, where perfectivity and telicity have similar values (i.e. [+telic] and [+perfective]) and telicity and perfectivity is realized on telic or lexical prefixes. The experimental tasks of this study included the less marked cluster of features (i.e. [+telic, + perfective] and the more marked cluster of features, where perfectivity and telicity have opposite values ([-telic, +perfective]), and perfectivity is realized on a superlexical prefix. Recall from the discussion of the results of the study in chapter 6 that even though L2 learners have more problems with Condition 2 verbs where perfectivity does not equal telicity, overall, the participants of the study were able to make correct logical inferences for telic and atelic predicates, thus demonstrating knowledge of lexical case. The findings of this study strengthen the argument about the accessibility of the universal semantic features, such as telicity.

In terms of the development of learners' L2 grammars, the study suggests that L2 learners start with the acquisition of the less marked cluster of features, such as [+telic, +perfective] and [uCase: ACC], which is also present in L2 learners' L1s, and then acquire the more marked cluster of features, such as [-telic, +perfective] and

[uCase: lexical]. Recall from the discussion on case presented in chapter 2 that English is unlike Russian in that it has only structural Accusative case and does not have lexical or inherent cases. The results obtained in this study show that the acquisition of structural Accusative case precedes the acquisition of lexical or inherent cases, which echoes the acquisition path reported in research on the acquisition of case by L1 learners (see e.g., Babyonyshev 1993) and studies on the order of the acquisition of case by L2 learners developed within the non-generative frameworks (see e.g., Rubinstein 1995). Due to the lack of studies on the acquisition of case by adult L2 learners developed within the generative framework, more research is needed in order to understand how L2 learners acquire case. In this study, I did not differentiate between lexical and inherent case, rather the distinction was made between non-structural cases (i.e. lexical and inherent cases) and structural cases (i.e. Accusative case). Given the nature of the research design, I was not able to identify which case (i.e. lexical or inherent) was more problematic for L2 learners, and this is one of the weaknesses of the present study. Future research can address this issue by looking at the order of acquisition of case. The prediction could be that structural Accusative case is the first case to be acquired, which is followed by inherent cases which are assigned together with thematic roles. Lexical case, being a purely idiosyncratic case, would be acquired last.

Another possibility for future research would be to review the pedagogical practices of teaching aspect and case to L2 learners of Russian and to investigate whether explicit grammatical rules on aspect and case presented to learners are in line with the implicit knowledge that L2 learners develop. This line of research would address the call made by generative SLA linguists (see e.g., Whong et al. 2013) about the importance of breaching the gap between linguistic theory and pedagogical practice, where the two areas of research can benefit

from each other. It is hard to maintain the view held by some generative linguists (e.g., Nossalik 2009) that instructed learning does not lead to the development of implicit linguistic knowledge especially given that the participants of the most studies conducted within the generative framework are instructed learners. More research is needed in order to investigate the development of IL grammars in naturalistic settings before such a claim can be made.

References

Adger, David. 2003. *Core syntax: A minimalist approach.* New York: Oxford University Press.

Aoun, Joseph. 1979. On government, case-marking, and clitic-placement. Cambridge, MA: MIT Press.

Ayoun, Dalila, and M. Rafael Salaberry, eds. 2005. *Tense and aspect in Romance languages: theoretical and applied perspectives.* Amsterdam, The Netherlands: John Benjamins.

Ayoun, Dalila, and Jason Rothman. 2013. Generative approaches to the acquisition of temporal-aspectual-mood systems. In *Research design and methodology in studies on L2 tense and aspect,* ed. Rafael Salaberry and Llorenç Comajoan, 119-156. Boston, MA: De Gruyter Mouton.

Babyonyshev, Maria. 1993. Acquisition of the Russian case system. *MIT Working Papers in Linguistics* 19:1-43.

Bailyn, John F. 2012. *The syntax of Russian.* New York: Cambridge University Press.

Bardovi-Harlig, Kathleen. 2000. *Tense and aspect in second language acquisition: Form, meaning, and use.* Oxford: Blackwell.

Biberauer, Theresa, and Ian Roberts. 2009. The Return of the Subset Principle. In *Historical syntax and linguistic theory*, ed. Paola Crisma and Giuseppe Longobardi, 58-75. Oxford: Oxford University Press.

Birdson, David P., and Michelle Molis. 2001. On the evidence for maturational constraints in second language acquisition. *Journal of Memory and Language* 44:235-249.

Bobaljik, Jonathan D., and Susan Wurmbrand. 2009. Case in GB/ Minimalism. In *The Oxford handbook of case*, ed. Andrej Malchukov and Andrew Spencer, 44-58. Oxford: Oxford University Press.

Benmamoun, Elabbas, Silvina Montrul, and Maria Polinsky. 2013. Heritage languages and their speakers: Opportunities and challenges for linguistics. *Theoretical Linguistics* 39(3–4):129 – 181.

Borik, Olga. 2006. *Aspect and reference time.* Oxford University Press.

Brown, H. Douglas. 2007. *Teaching by principles: An interactive approach to language pedagogy.* White Plains, NY: Pearson Education.

Brown, James. D. 1988. *Understanding research in second language learning: A teacher's guide to statistics and research design*. Cambridge University Press.

Bylund, Emanuel. 2009. Maturational constraints and first language attrition. *Language Learning* 59(3):687–715.

Burzio, Luigi. 1986. *Italian syntax.* Dordrecht: Reidel.

Chaterjee, Ranjit. 1988. *Aspect and meaning in Slavic and Indic*. John Benjamins.

Chomsky, Noam. 1969. Linguistics and philosophy. In *Language and philosophy: Proceedings of a symposium*, ed. Sidney Hook, 51-94. New York: New York University Press.

Chomsky, Noam. 1980. *On Binding. Linguistic Inquiry* 11:1-46.

Chomsky, Noam. 1981. *Lectures on government and binding.* Dordrecht: Foris.

Chomsky, Noam. 1986. *Knowledge of language: Its nature, origins and use.* New York: Praeger.

Chomsky, Noam. 1991. Some notes on economy of derivation and representation. In *Principles and parameters in comparative grammar*, ed. Robert Freidin, 417-454. Canbridge, MA: MIT Press.

Chomsky, Noam. 1993. A minimalist program for linguistic theory. In *The View from Building 20: Essays in Linguistics in Honor of Sylvian Bromberger*, ed. Kenneth L. Hale and Samuel Jay Keyser, 1-52. Cambridge, MA: MIT Press.

Chomsky, Noam. 1995. *The Minimalist Program.* Cambridge, MA: MIT Press.

Chomsky, Noam. 2000. Minimalist Inquiries: The framework. In *Step by Step: Essays on Minimalist Syntax in Honor of Howard Lasnik*, ed. by Roger Martin, David Michaels, and Juan Uriagereka, 89-147. Cambridge, MA: MIT Press.

Chomsky, Noam. 2001. Derivation by phase. In *Ken Hale: A life in language*, ed. Michael Kenstowicz, 1-52. Cambridge, MA: MIT Press.

Chomsky, Noam. 2008. On Phases. In *Foundational issues in linguistic theory: Essays in honor of Jean-Roget Vergnaud*, ed. Robert Freidin, Carlos P. Otero, and Maria Louisa Zubizarreta, 133-167. Cambridge, MA: The MIT Press.

Clark, Robin, and Ian Roberts. 1993. A computational approach to language learnability and language change. *Linguistic Inquiry* 24:299-345.

Comrie, Bernard. 1976. *Aspect: An introduction to the study of verbal aspect and related problems.* Cambridge University Press.

Cowper, Elizabeth. 2005: The geometry of interpretable features: Infl in English and Spanish. *Language* 81:10–46.

Di Sciullo, Anne Marie, and Roumyana Slabakova. 2005. Quantification and aspect. *In Perspectives on aspect*, eds. Henk J. Verkuyl, Henriette de Swart, and Angeliek van Hout, 61-80. The Netherlands: Springer.

Dowty, D. 1979. *Word Meaning and Montague Grammar: The Semantics of Verbs and Times in Generative Semantics and in Montague's PTQ*. Synthese Language Library, Vol. 7. Dordrecht: D. Reidel Publishing Company.

Eisenbeiss, Sonja, Narasimhan, Bhuvana, and Maria Voeikova. 2009. The acquisition of case. In *The Oxford handbook of case,* ed. Andrej Malchukov and Andrew Spenser, 369-383. Oxford University Press.

Ellis, Nick. C. 2005. At the Interface: Dynamic interactions of explicit and implicit language knowledge. *Studies in Second Language Acquisition* 27:305-352.

Embick, David, and Noyer Rolf. 2001. Movement operations after syntax. *Linguistic Inquiry* 32(4):555-595.

Forsyth, James. 1970. *A grammar of aspect: Usage and meaning in the Russian verbs.* Cambridge University Press.

Filip, Hana. 2003. Prefixes and delimitation of events. *Journal of Slavic Linguistics* 11(1):55-101.

Gass, Susan M., and Larry Selinker. 2008. *Second language acquisition: An introductory course* 3rd ed. New York: Routledge.

Harley, Heidi, and Elizabeth Ritter. 2002. Person and number in pronouns: a feature-geometric analysis. *Language 78*:482–526.

Haspelmath, Martin. 2009. Terminology of case. In *The Oxford handbook of case,* ed. Andrej Malchukov and Andrew Spencer, 505-517. Oxford: Oxford University Press.

Hauser, Marc D., Noam Chomsky, and W. Tecumseh Fitch. 2002. The faculty of language: What is it, who has it and how did it evolve? *Science* 298:1569-1579.

Hawkins, Roger, and Yuet-hung Chan. 1997. The partial availability of Universal Grammar in second language acquisition: The 'failed functional features hypothesis'. *Second Language Research* 13(3):187-226.

Hawkins, Roger. 2001. *Second language syntax: A generative introduction*. Malden, MA:

Blackwell.

Hawkins, Roger, and Sarah Liszka. 2003. Locating the source of defective past tense marking in advanced L2 English speakers. In *The lexicon-syntax interface in second language acquisition*, ed. Roeland van Hout, Aafke Hulk, Folkert Kuiken and Richard J. Towell, 21-44. Amsterdam: John Benjamins.

Hawkins, Roger, Gabriela Casillas, Hajime Hattori, James Hawthorne, Ritta Husted, Cristóbal Lozano, Aya Okamoto, Emma Thomas, and Kazumi Yamada. 2008. The semantic effects of verb raising and its consequences in second language grammars. In *The role of formal features in second language acquisition*, ed. Juana M. Liceras, Helmut Zobl, and Helen Goodluck, 328-351. New York, NY: Lawrence Erlbaum Associates.

Hornstein, Norbert, Jairo Nunes, and Kleanthes K. Grohmann. 2005. *Understanding Minimalism.* Cambridge: Cambridge University Press.

Hyltenstam, Kenneth. 1977. Implicational patterns in interlanguage syntax variation. *Language Learning* 27:383-411.

Ioup, Georgette, Elizabeth Boustagui, Manal El Tigi, and Martha Moselle. 1994. Re-examining the Critical Period Hypothesis: A Case study of successful adult SLA in a naturalistic environment. *Studies in Second Language Acquisition* 16:73-98.

Jackendoff, Ray. 2002. *Foundations of language.* Oxford University Press.

Jakobson, Roman. 1968. *Child language, aphasia and phonological universals.* The Hague: Mouton.

Johnson, Jacqueline, and Elissa L. Newport. 1989. Critical period effects in second language learning: The influence of maturational state on the acquisition of English as a second language. *Cognitive Psychology* 21, 60-99.

Kearns, Kate. 2011. *Semantics.* 2nd ed. New York, NY: Palgrave Macmillan.

Kenny, Anthony. 1963. *Action, emotion and will.* London: Routledge & K. Paul.

Keyser, Samuel Jay, and Thomas Roeper. 1992. Re: The abstract clitic hypothesis. *Linguistic Inquiry* 23:89-125.

Kempchinsky, Paula, and Roumyana Slabakova, ed. 2005. *Aspectual inquiries.* Dordrecht: Springer.

Kempe, Vera, and Brian MacWhinney. 1998. The acquisition of case marking by adult learners of Russian and German. *Studies in Second Language Acquisition* 20:543-587.

Kiparsky, Paul. 1998. Partitive case and aspect. In *The projection of arguments*, ed. Miriam Butt and Wilhelm Geuder, 265-308. Stanford: CSLI.

Koopman, Hilda, and Dominique Sportiche. 1991. The position of subjects. *Lingua* 85:211-285.

Kratzer, Angelika. 2004. Telicity and the meaning of objective case. In *The syntax of time*, ed. Jacqueline Guéron and Jacqueline Lecarme, 389-423. Cambridge, MA: The MIT Press.

Lamers, Monique, and Esther Ruigendijk. 2009. Case and Aphasia. In *The Oxford handbook of case*, ed. Andrej Malchukov and Andrew Spencer. Oxford: Oxford University Press.

Lardiere, Donna. 1998. Case and tense in the 'fossilized' steady state. *Second Language Research* 14(1):1-26.

Lardiere Donna. 2008. Feature-assembly in second language acquisition. In *The role of formal features in second language acquisition*, ed. Juana M. Liceras, Helmut Zobl, and Helen Goodluck, 106–140. New York, NY: Lawrence Erlbaum Associates.

Lardiere, Donna. 2009. Some thoughts on the contrastive analysis of features in second language acquisition. *Second Language Research* 25(2):173–227.

Lasnik, Howard. 2008. On the development of case theory: Triumphs and challenges. In *Foundational issues in linguistic theory: Essays in honor of Jean-Roger Vergnaud*, ed. Robert Freidin, Carlos P. Otero, and Maria Luisa Zubizarreta, 17-42. Cambridge, MA: MIT Press.

Legate, Julie Anne. 2008. Morphological and abstract case. *Linguistic Inquiry* 39(1):55-101.

Lenneberg, Eric H. 1967. *Biological foundations of language.* New York: John Wiley and Sons.

Leung, Yan-Kit Ingrid. 2002. Functional categories in second and third language acquisition: A cross linguistic study of the acquisition of English and French by Chinese and Vietnamese speakers. Ph.D. dissertation, McGill University.

Li, Ping, and Yasuhiro Shirai. 2000. *The acquisition of lexical and grammatical aspect*. New York: Mouton de Gruyte.

Liceras, Juana M., Helmut Zobl, and Helen Goodluck, ed. 2008. *The role of formal features in second language acquisition.* New York: Lawrence Erlbaum Associates.

Linguistic Society of America. 2012. Retrieved from http://www.linguisticsociety.org/resource/multilingualism.

LeFlemming, Svetlana, and Susan E. Kay. 2003. *Colloquial Russian: The next step in language learning.* New York: Routledge. Retrieved from http://site.ebrary.com.ezproxy.library.yorku.ca/lib/oculyork/reader.action?docID=10166545&ppg.

Mackey, Alyson, and Susan M. Gass. 2005. *Second language research: Methodology and design.* Mahwah, NJ: Lawrence Erlbaum Associates.

Marinina, Alexandra. 2006. *Незапертая дверь. Nezapertaja dver'*. Moscow, Russia: Eksmo.

Matushansky, Ora. 2002. On formal identity of Russian prefixes and prepositions.

MIT Working Papers in Linguistics 42:217–253.

McNanamara, Tim. 2000. *Language testing*. Oxford University Press.

Montrul, Silvina, and Roumyana Slabakova. 2003. Competence similarities between native and near-native speakers: An investigation of the Preterite-Imperfect contrast in Spanish. *Studies in Second Language Acquisition 25*: 351-398.

Nossalik, Larissa. 2009. L2 acquisition of Russian aspect. Doctoral dissertation, McGill University.

Oller, John W. 1979. *Language tests at school: A pragmatic approach.* London: Longman.

Olsen, Mary Broman, and Amy Weinberg. 1999. Innateness and the acquisition of grammatical aspect via lexical aspect. In *Proceedings of the 23d annual Boston University conference on language development*, ed. Annabel Greenhill, Heather Littlefield, and Cheryl Tano, 529-540. Somerville, MA: Cascadilla Press.

Ortega, Lourdes. 2009. *Understanding second language acquisition.* London: Hodder Education.

Pereltsvaig, Asya. 2000. On accusative adverbials in Russian and Finnish. In *Adverbs and adjunction: Linguistics in Potsdam 6*, ed. Artemis Alexiadou and Peter Svenonius, 155–176. Potsdam: Institut für Linguistik, Universität *Potsdam.*

Pereltsvaig, Asya. 2008. Aspect in Russian as grammatical rather than lexical notion: Evidence from heritage Russian. *Russian Linguistics* 32(1):27-42.

Pesetsky, David, and Esther Torrego. 2004. The syntax of valuation and the interpretability of features. Retrieved from http://web.mit.edu/linguistics/people/faculty/pesetsky/Pesetsky_Torrego_Agree_paper.pdf.

Pesetsky, David, and Esther Torrego. 2009. Case. In *The Oxford handbook of linguistic minimalism*, ed. Cedric Boeckx, 52-72. Oxford University Press. Retrieved from http://web.mit.edu/linguistics/people/faculty/pesetsky/Case_chapter.pdf.

Peirce, Gina. 2013. Acquisition of the Russian case system by L1 and L2 Learners: Generative and functionalist approaches. Retrieved from https://www.academia.edu/3486097/Acquisition_of_the_Russian_Case_System_by_L1_and_L2_Learners_Generative_and_Functionalist_Approaches.

Polinsky, Maria. 2007. Reaching the end point and stopping midway: Different scenarios in the acquisition of Russian. *Russian Linguistics* 31:157-199.

Polinsky, Maria, and Omer Preminger. 2014. Case and grammatical relations. In The *Routledge handbook of syntax*, ed. Andrew Carnie, Yosuke Sato, and Daniel Siddiqi, 150-166. London: Routledge.

Pollock, Jean-Yves. 1989. Verb movement, UG and the structure of IP. *Linguistic Inquiry* 20:365-424.

Prévost, Philippe, and Lydia White. 2000. Missing surface inflection or impairment in second language acquisition. *Second Language Research* 16(2):103-133.

Radford, Andrew. 1990. *Syntactic theory and the acquisition of English syntax: The nature of early child grammars of English.* Cambridge, MA: Blackwell.

Ramchand, Gillian C. 2004. Time and the event: The semantics of Russian prefixes. Retrieved June 12, 2012, from http://www.journaldatabase.org/articles/time_event_semantics_russian_prefixes1.html.

Richardson, Kylie. 2007. *Case and aspect in Slavic.* New York: Oxford University Press.

Ritter, Elizabeth, and Sarah T. Rosen. 1998. Delimiting events in syntax. In *The projection of*

arguments: Lexical and compositional factors, ed. Miriam Butt and Wilhelm Geuder, 135-164. Stanford, CA: CSLI Publications.

Ritter, Elizabeth, and Sarah T. Rosen. 2000. Event structure and ergativity. In *Events as grammatical objects: The conversing perspectives of lexical semantics and syntax,* ed. Carol Tenny and James Pustejlovsky. Stanford: CSLI Publications.

Roeper, Thomas, and William Snyder. 2005. Language learnability and the forms of recursion. In *UG and external systems: Language, brain and computation*, ed. Anna Maria Di Sciullo, 155-169. Amsterdam: John Benjamins.

Romanova, Eugenia. 2004. Superlexical vs. lexical prefixes. *Nordlyd 32(2)*:255-278.

Rothman, Jason. 2008. Aspect selection in adult L2 Spanish and the Competing Systems Hypothesis: When pedagogical and linguistic rules conflict. *Languages in Contrast* 8: 74–106.

Rothman, Jason, and Jeanine Treffers-Daller. 2014. A prolegomenon to the construct of the native speaker: Heritage speaker bilinguals are natives too! *Applied Linguistics* 35:93–98.

Rubinstein, George. 1995. On acquisition of Russian cases by American classroom learners. *International Review of Applied Linguistics in Language Teaching* 33(1):9-34.

Russian National Corpus. 2014. Retrieved from http://search.ruscorpora.ru/search.xml?env=alpha&mydocsize=&dpp=&spp=&spd=&text=lexform&sort=gr_tagging&lang=ru&nodia=1&req=%EF%F0%E8%ED%E0%F8%E8%E2%E0%F2%FC&mode=main.

Salaberry, M. Rafael. 2000. *The development of past tense morphology in L2 Spanish.* Amsterdam: John Benjamins.

Schmidt, Richard. 1983. Interaction, acculturation, and the acquisition of communicative

competence. In *Sociolinguistics and language acquisition*, ed. Nessa Wolfson and Elliot Judd, 137-174. Rowley, MA: Newbury House.

Schwartz, Bonnie D., and Rex A. Sprouse. 1996. L2 cognitive states and the Full Transfer/Full Access model. *Second Language Research* 12:40:72.

Schütze, Carson. 1995. Children's subject case errors: Evidence for case-related functional projections. In *FLSM VI: Proceedings of the sixth annual meeting of the Formal Linguistics Society of Mid-America*, ed. Leslie Gabriele, Debra Hardison, and Robert Westmoreland, 155–166. Bloomington, IN: Indiana University.

Scontras, Gregory, Fuchs, Zuzanna, and Maria Polinsky. 2015. Heritage language and linguistic theory. *Frontier in Psychology* 6:1-20.

Scovel, Thomas. 2000. A critical review of the critical period research. *Annual Review of Applied Linguistics* 20:213-223.

Selinker, Larry. 1972. Interlanguage. *International Review of Applied Linguistics in Language Teaching* 10(3):209-231.

Slabakova, Roumyana. 1999. The parameter of aspect in second language acquisition. *Second Language Research* 15:283-317.

Slabakova, Roumyana. 2002. Recent research on the acquisition of aspect: An embarrassment of riches? *Second Language Research 18*(2):172–188.

Slabakova, Roumyana. 2005. What is so difficult about telicity marking in L2 Russian? *Bilingualism: Language and Cognition*, 8(1):63-77.

Slabakova, Roumyana. 2006. In there a critical period for semantics? *Second Language Research*, 22(3):1-37.

Slabakova, Roumyana. 2009. Features or parameters: which one makes second language acquisition easier, and more interesting to study? *Second Language Research,* 25(2):313–324.

Slabakova, Roumyana. 2009a. How is inflectional morphology learned? *EUROSLA Yearbook* 9: 56–75.

Smith, Carlota S. 1991. *The parameter of aspect.* Dordrecht: Kluwer Academic Publishers.

Smith, Michael Sharwood, John Archibald, Margaret Thomas, and Roger Hawkins. 2009. Editorial. *Second Language Research* 25(2):171.

SPSS Statistics (Version 21) [Computer software]. New York: IBM.

SPSS Statistics (Version 22) [Computer software]. New York: IBM.

Svenonius, Peter. 2004. Russian prefixes inside and outside of VP. *Nordlyd* 32*(2)*:205–253. Retrieved from http://www.ub.uit.no:8080/munin/bitstream/handle/10037/267/article.pdf?sequence=1.

Szucsich, Luka. 2001. Adjunct positions of nominal adverbials in Russian. In *Current issues in formal Slavic linguistics*, ed. Gerhild Zybatow, Uwe Junghanns, Grit Mehlhorn and Luka Szucsich, 106-116. Frankfurt am Main. Retrieved from http://amor.cms.hu-berlin.de/~szucsicl/luka_2.htm.

Szucsich, Luka. 2002. Case licensing and nominal adverbials in Slavic. In *Formal approaches to Slavic linguistics 10, the Ann Arbor meeting 2001*, ed. Jindřich Toman, 249-270. Ann Arbor, MI: Michigan Slavic Publications. Retrieved from http://amor.cms.hu-berlin.de/~szucsicl/luka_2.htm.

Tatevosov, Sergey. 2007. Intermediate prefixes in Russian. In *Formal approaches to Slavic linguistics: The Stony Brook meeting 2007*, ed. Andrei Antonenko, John Baylin, and Christina Y. Bethin, 423-442. Ann Arbor, MI: Slavic Publications.

Tasseva-Kurktchieva, Mila. 2015. Can production precede comprehension in L2 acquisition? *Second Language Research 31*(4) 493–522.

Taylor, Barry. 1977. Tense and continuity. *Linguistics and Philosophy* 1(2):199-220.

Travis, Lisa D. 1991. *Inner aspect and the structure of VP.* Ms. McGill University.

Travis, Lisa. 2000. Event structure in syntax. In *Events as grammatical objects: The converging perspectives of lexical semantics and syntax*, ed. Carol L. Tenny and James Pustejovsky, 145-185. Stanford, CA: CSLI Publications.

Travis, Lisa. 2005. *Articulated vPS and the computation of aspectual classes.* In *Aspectual inquiries*, ed. Paula Kempchinsky and Roumyana Slabakova, 69-93. Dordrecht: Springer.

Travis, Lisa. 2008. The role of features in syntactic theory and language variation. In *The role of formal features in second language acquisition*, ed. Juana M. Liceras, Helmut Zobl, and Helen Goodluck, 22–47. New York, NY: Lawrence Erlbaum Associates.

Travis, Lisa. 2010. *Inner aspect: The articulation of VP*. London: Springer.

Vainikka, Anne, and Martha Young-Scholten. 1994. Direct access to X'-theory: Evidence from Korean and Turkish adults learning German. In *Language acquisition studies in generative grammar*, ed. Teun Hoekstra and Bonnie D. Schwartz, 265-316. Amsterdam: John Benjamins.

Vendler, Zeno. 1957. Verbs and times. *The Philosophical Review* 66(2):143-160.

Vergnaud, Jean-Roger. 2008. Letter to Noam Chomsky and Howard Lasnik on "Filters and Control", April 17, 1977. In *Foundational issues in linguistic theory: Essays in honor of*

Jean-Roger Vergnaud, ed. Robert Freidin, Carlos P. Otero, and Maria Luisa Zubizarreta, 3-16. Cambridge, MA: MIT Press.

Verkuyl, Henk. J. 1972. *On the compositional nature of the aspect.* Dordrecht: D. Reidel Publishing Co.

Verkuyl, Henk. J. 1993. *A theory of aspectuality: The interaction between temporal and atemporal structure.* Cambridge: Cambridge University Press.

Verkuyl, Henk. J. 2005. Aspectual composition: Surveying the ingredients. In *Perspectives on aspect*, ed. Angeliek van Hout, Henriette de Swart, and Henk J. Verkuyl, 18-39. Dordrecht: Springer.

Verkuyl, Henk. J. 2012. Compositionality. In *The Oxford handbook of tense and aspect*, ed. Robert Binnick, 563-585. Oxford University Press.

Wexler, Kenneth, and M. Rita Manzini. 1987. Parameters and learnability in binding theory. In *Parameter setting*, ed. Thomas Roeper and Edwin Williams, 41–76. Boston, MA: D. Reidel Publishing Company.

White, Lydia. 1987. A note on Pinney. In *Parameter setting*, ed. Thomas Roeper and Edwin Williams, 239-246. Boston, MA: D. Reidel Publishing Company.

White, Lydia. 1989. Linguistic universals, markedness and learnability: Comparing two different approaches. *Second Language Research* 5:127-140.

White, Lydia. 2003. *Second language acquisition and universal grammar.* New York: Cambridge University Press.

White, Lydia. 2003a. Fossilization in steady state L2 grammars: Persistent problems with inflectional morphology. *Bilingualism: Language and Cognition* 6(2):129-141.

White, Lydia. 2008. Some puzzling features of L2 features. In *The role of formal features in*

second language acquisition, ed. Juana M. Liceras, Helmut Zobl, and Helen Goodluck, 300-327. New York: Lawrence Erlbaum Associates.

Whong, Melinda, Heather Marsden, and Gil Kook-Hee. 2013. How we can learn from acquisition: The acquisition-learning debate revisited. In *Proceedings of the 12th generative approaches to second language acquisition conference (GASLA 2013)*, ed. Jennifer Cabrelli Amaro, Tiffany Judy, and Diego Pascual y Cabo, 203-210. Somerville, MA: Cascadilla Proceedings Project.

Woolford, Ellen. 2006. Lexical case, inherent case and argument structure. *Linguistic Inquiry* 37(1):111-130.

Yockey, Ronald D. 2007. *SPSS demystified: A step by step guide to successful data analysis.* Upper Saddle River, NJ: Pearson Education.

Appendices

APPENDIX A: QUESTIONNAIRE

Name:

Age:

Languages spoken: 1st language other languages:

Age of the first exposure to Russian:

Time spent in a Russian speaking country:

Time spent learning Russian in a formal setting (e.g., language school, University):

Time spent learning Russian in a naturalistic setting (e.g., talking to friends, watching movies):

APPENDIX B: CLOZE TEST

Instructions

Below is a passage written in Russian. Read the passage carefully and fill in the gaps using appropriate words in their correct grammatical form. Note that you can only use **one** word per blank.

Разговор с мамой

Дома Наталья занялась ужином для мужа и сына, которые должны были появиться около девяти... Вчера только Наталья пропылесосила всю огромную пятикомнатную квартиру, а сегодня жилье выглядит так, словно в нем год не убирались... Первым явился сын Алеша. Вот и хорошо, подумала Наталья, Алешка не испытывает тяги к компании, не станет ждать Андрея, быстренько поест и ему можно будет сунуть в руки пылесос. Пусть ужин отрабатывает.

Мам, а пахнет-то как (1) _____! – заявил он, появляясь в (2) _____ кухне-столовой. - Чего сегодня дают?

- (3) _____ с гречкой и салат, (4) _____ Наталья с улыбкой, целуя (5) _____.

- А картошечки жареной? – жалобно (6) _____ Алеша.

- Сегодня обойдешься. Картошка (7) _____ два дня назад, и, (8) _____ ты ее не принесешь (9) _____ магазина, она в доме (10) _____ появится. Кроме того, тебе (11) _____с мясом есть нельзя, (12) _____ то скоро в дверь (13) _____ пройдешь.

- Понял, не дурак, - (14) _____ кивнул юноша. – Завтра куплю.

(15) _____ в считанные минуты справился (16) _____ обильным ужином, закончив его (17) _____ чашкой чаю с куском (18) _____ торта.

- Алешка, ну как (19) _____ тебя столько влезает? – засмеялась (20) _____, не переставая удивляться способности (21) _____поглощать пищу в немыслимых (22) _____.

- Я много лет тренировался. – (23) _____ тот.

Дождавшись, когда сын (24) _____ из-за стола, Наталья собрала (25) _____ посуду, поставила ее в (26) _____.

- Сынок, я думаю, будет (27) _____, если ты включишь пылесос, (28) _____ она, принимаясь за мытье (29) _____.

- Ну мам, у меня (30) _____ экзамен, - заныл Алеша. – Мне (31) _____ поучить надо.

- Поучишь, - спокойно (32) _____ она. До утра времени (33) _____. Полчаса ничего не решают.

- (34) _____ зловредина, - пробурчал сын, понимая, (35) _____ от пылесоса ему не (36) _____.

- Возможно, - произнесла Наталья, не (37) _____. – Но пылесосить все-таки придется.

- (38) _____ мам!

- Не нравится – переезжай (39) _____собственную квартиру, она стоúт (40) _____, тебя ждет.

(Marinina 2006)

APPENDIX C: LE TASK IN RUSSIAN

Часть 1

Иногда правдивость одного предложения предполагает правдивость другого предложения. В качестве иллюстрации, рассмотрим предложения (1а) и (1б) примера 1.

Пример 1

(1) а. Когда позвонила мама, Петя подражал Путину.

б. Петя уже поподражал Путину.

Вопрос: Предполагает ли правдивость предложения (1а) правдивость предложения (1б)?

Ответ: [Да] Нет Я не знаю

Объяснение: Если мы знаем, что Петя подражал Путину в момент маминого звонка (см. предложение (1а)), то мы тоже знаем, что Петя уже поподражал Путину (см. предложение (1б)). В этом случае, правдивость предложения (1а) предполагает правдивость предложения (1б). Поэтому «да» является правильным ответом на этот вопрос.

В качестве противоположного примера, рассмотрим предложения (2а) и (2б).

Пример 2

(2) а. Когда позвонила мама, Петя ел яблоко.

б. Петя уже съел яблоко.

Вопрос: Предполагает ли правдивость предложения (2а) правдивость предложения (2б)?

Ответ: Да [Нет] Я не знаю

Объяснение: Если мы знаем, что Петя ел яблоко в момент маминого звонка (см. предложение (2а)), то правдивость этого предложения не предполагает, что он уже съел яблоко (см. предложение (2б)). В этом случае, правдивость предложения (2а) не предполагает правдивость предложения (2б). Поэтому «нет» является правильным ответом на этот вопрос.

Перед вами 18 пар предложений. Внимательно прочитайте предложения в каждой паре и решите, предполагает ли правдивость предложения (а) правдивость предложения (б). Обведите правильный ответ – «да» или «нет» - в кружок. Только в крайнем случае, если вы действительно не уверены в ответе, выбирете вариант «Я не знаю».

(1) а. Когда опустился занавес, зрители аплодировали актерам.

б. Зрители уже поаплодировали актерам.

Предполагает ли правдивость предложения (1а) правдивость предложения (1б)?

Да *Нет* *Я не знаю*

(2) а. Иван учится в Московском Государственном Университете.

б. Иван студент.

Предполагает ли правдивость предложения (2а) правдивость предложения (2б)?

Да *Нет* *Я не знаю*

(3) а. Когда началась гроза, самолет летел над океаном.

б. Самолет уже перелетел океан.

Предполагает ли правдивость предложения (3а) правдивость предложения (3б)?

Да *Нет* *Я не знаю*

(4) а. Когда мама пришла с работы, дети мыли посуду.

б. Дети уже вымыли посуду.

Предполагает ли правдивость предложения (4а) правдивость предложения (4б)?

Да *Нет* *Я не знаю*

(5) а. Когда наступило утро, Миша был поглощён чтением нового детективного романа.

б. Детективный роман был очень интересным.

Предполагает ли правдивость предложения (5а) правдивость предложения (5б)?

Да *Нет* *Я не знаю*

(6) а. Когда Ростроповичу исполнилось 35 лет, он дирижировал оркестром.
б. Он уже подирижировал оркестром.

Предполагает ли правдивость предложения (6а) правдивость предложения (6б)?
Да *Нет* *Я не знаю*

(7) а. Когда Дима включил телевизор, футболисты команды “Зенит” играли первый тайм игры.

б. Футболисты команды “Зенит” уже выиграли первый тайм игры.

Предполагает ли правдивость предложения (7а) правдивость предложения (7б)?
Да *Нет* *Я не знаю*

(8) а. Когда началась война, генерал Жуков командовал полком.
б. Генерал Жуков уже покомандовал полком.

Предполагает ли правдивость предложения (8а) правдивость предложения (8б)?
Да *Нет* *Я не знаю*

(9) а. Когда Иван был принят на работу, Маша заведовала канцелярией.
б. Маша уже позаведовала канцелярией.

Предполагает ли правдивость предложения (9а) правдивость предложения (9б)?
Да *Нет* *Я не знаю*

(10) а. Когда муж пришел с работы, жена готовила ужин.
б. Жена уже приготовила ужин.

Предполагает ли правдивость предложения (10а) правдивость предложения (10б)?
Да *Нет* *Я не знаю*

(11) а. Когда мама пришла с работы, дети делали домашнюю работу.
б. Дети уже сделали домашнюю работу.

Предполагает ли правдивость предложения (11а) правдивость предложения (11б)?

Да *Нет* *Я не знаю*

(12) а. Когда началась перестройка, Юрий руководил отделом переводчиков.
б. Юрий уже поруководил отделом переводчиков.

Предполагает ли правдивость предложения (12а) правдивость предложения (12б)?

Да *Нет* *Я не знаю*

(13) а. У Льва Толстого было 13 детей.
б. Александра Толстая была единственным ребенком Льва Толстого.

Предполагает ли правдивость предложения (13а) правдивость предложения (13б)?

Да *Нет* *Я не знаю*

(14) а. Когда поднялся занавес, пианист аккомпанировал певцу на рояле.
б. Пианист уже поаккомпанировал певцу на рояле.

Предполагает ли правдивость предложения (14а) правдивость предложения (14б)?

Да *Нет* *Я не знаю*

(15) а. Когда наступил вечер, дети читали сказки Пушкина.

б. Дети уже прочитали сказки Пушкина.

Предполагает ли правдивость предложения (15а) правдивость предложения (15б)?

Да *Нет* *Я не знаю*

(16) а. Когда объявили пожарную тревогу, Маша ассистировала известному хирургу.

б. Маша уже поассистировала известному хирургу.

Предполагает ли правдивость предложения (16а) правдивость предложения (16б)?

Да *Нет* *Я не знаю*

(17) а. Когда пришла весна, на нашей даче строители строили новый этаж.

б. Строители уже пристроили новый этаж.

Предполагает ли правдивость предложения (17а) правдивость предложения (17б)?

Да *Нет* *Я не знаю*

(18) а. Когда начался дождь, дети играли в футбол.

б. Дети пришли домой сухими.

Предполагает ли правдивость предложения (18а) правдивость предложения (18б)?

Да *Нет* *Я не знаю*

APPENDIX D: LE TASK IN ENGLISH

(A) Sometimes knowing the truth of one sentence **implies the truth** of another sentence. For example, if we know it is true that

When the storm started, Mary was driving a car.

then we know it is true that

Mary has driven a car.

(B) However, sometimes the opposite is true. In this case, the truth of one sentence **does not imply the truth** of another sentence. For example, the truth of the sentence

When the storm started, Mary was running a mile.

does not imply the truth of the sentence

Mary has run a mile.

because the event of *Mary's running a mile* can be potentially incomplete when the storm started.

In this task you are given 18 pairs of sentences. Read them carefully and decide whether or not the truth of the sentence in (a) implies the truth of the sentence in (b). In other words, if (a) is true, do you think that (b) must be true as well? More specifically, do you think that if the action/event in sentence (a) happened, then the action/event in sentence (b) must have happened as well?

Take, for example (1) and (2):

(1) a. Kogda pozvonila mama, Petja podražal president-u Putinu
when called mom Petja imitated.IMPF president-DAT Putin
'When mom called, Petja was imitating President Putin.'

b. Petja uže po-podražal president-u Putinu
Petja already PF-imitated president-DAT Putin
'Petja has already imitated President Putin.'

QUESTION: If (1a) is true, is (1b) also true?

Yes No I don't know

If Petja's imitating President Putin at the moment of his mom's call is true, then the event of having already imitated President Putin is also true. Specifically, the truth of sentence (1a) **implies** the truth of sentence (1b). Therefore, the answer to the question is ***yes***.

Next consider example (2).

(2) a. Kogda pozvonila mama, Petja el jablok-o
when called mom Petja ate.IMPF apple-ACC
'When mom called, Petja was eating an apple.'

b. Petja uže s-el ablok-o
Petja already PF-ate apple-ACC
'Petja has already eaten an apple.'

QUESTION: If (2a) is true, is (2b) also true?

Yes **No** I don't know

If Petja's eating an apple at the moment of his mom's call is true, this does not imply that he had already eaten an apple. Specifically, the truth of sentence (2a) **does not imply** the truth of sentence (2b). Therefore, the answer to the question is ***no***.

For the following sentence pairs decide whether the truth of the sentence presented in (a) implies the truth in the sentence presented in (b). Circle *yes* or *no* and, if you really aren't sure, then circle, *I don't know*.

(1) a. Kogda opustilsja zanaves, zriteli aplodirovali aktjor-am
when fell curtain audience applauded.IMPF actors-DAT
'When the curtain fell, the audience was applauding the actors.'

b. Zriteli uže po-aplodirovali aktjor-am
audience already PF-applauded actors-DAT
'The audience has already applauded the actors.'

If (1a) is true, is (1b) also true?

Yes *No* *I don't know*

(2) a. Ivan učitsja v Moskovskom gosudarstvennom
Ivan study.IMPF in Moscow state

universitete.
university
'Ivan studies at Moscow State University.'

b. Ivan student
Ivan student
'Ivan is a student.'

If (2a) is true, is (2b) also true?

Yes *No* *I don't know*

(3) a. Kogda načalas' groza, samoljet letel
when started thunderstorm airplane flew.IMPF

nad ocean-om
over ocean-INSTR
'When the thunderstorm started, an airplane was crossing an ocean.'

b. Samoljet uže pere-letel ocean-Ø
airplane already PF-flew ocean-ACC
'An airplane has already flown over the ocean.'

If (3a) is true, is (3b) also true?

Yes *No* *I don't know*

(4) a. Kogda mama prišla s raboty, deti myli posud-u.
when mom came from work children washed dishes-ACC.
'When mom came from work, the children were washing the dishes.'

b. Deti uže vy-myli posud-u.
chidren already PF-washed dishes-ACC
'The children have already washed the dishes.'

If (4a) is true, is (4b) also true?

Yes *No* *I don't know*

(5) a. Kogda nastupilo utro, Miša byl poglaščen
when came morning Miša was absorbed

čteniem novogo detektivnogo roman-a
reading new detective novel-GEN
'When morning came, Miša was absorbed in reading the new detective novel.'[75]

b. Detektivnyi roman byl očen' interesnym.
detective novel was very interesting
'The detective novel was very interesting.'

If (5a) is true, is (5b) also true?

Yes *No* *I don't know*

(6) a. Kogda Rostrapoviču ispolnilos' 35 let, on direžiroval
when Rostrapovič turned 35 years he conducted.IMPF

orkestr-om
orchestra-INSTR
'When Rostrapovič turned 35, he was conducting an orchestra.'

b. Rostrapovič uže po-direžiroval orkestr-om
Rostrapovič already PF-conducted orchestra-INSTR
'Rostrapovič has already conducted an orchestra.'

If (6a) is true, is (6b) also true?

Yes *No* *I don't know*

(7) a. Kogda Dima vklučil televizor, futbolisty Zenita
when Dima turned.on TV soccer.players Zenit

igrali pervyj taim-Ø igry
played.IMPF first half-ACC play
'When Dima turned on the TV, Zenit soccer players were playing the first half of the game.'

[75] The examples in (2), (5), (13), and (18) are distractors.

b. Futbolisty Zenita uže vy-igrali pervyj
Soccer.players Zenit already PF-played first

taim-Ø igry
half-ACC game
'Zenit soccer players have already won the first half of the game.'

If (7a) is true, is (7b) also true?

Yes *No* *I don't know*

(8) a. Kogda načalas' vojna, general Žukov komandoval
when came war general Žukov commanded.IMPF

polk-om.
division-INSTR
'When the war started, general Žukov was commanding a division.'

b. General Žukov uže po-komandoval polk-om.
general Žukov already PF-commanded division-INSTR
'General Zukov has already commanded a division.'

If (8a) is true, is (8b) also true?

Yes *No* *I don't know*

(9) a. Kogda Ivan byl prin'jat na rebotu, Maša
when Ivan was hired for job Maša

zavedovala kančeljari-ej.
managed.IMPF office-INSTR
'When Ivan was hired, Maša was managing the office.'

b. Maša uže po-zavedovala kančeljari-ej.
Maša already PF-managed office-INSTR
'Maša has already managed the office.'

If (9a) is true, is (9b) also true?

Yes *No* *I don't know*

(10) a. Kogda muž prišel s raboty, žena gotovila
when husband came from work wife cooked.IMPF

užin-Ø
supper-ACC
'When the husband came from work, the wife was cooking dinner.'

b. Žena uže pri-gotovila užin-Ø.
wife already PF-cooked dinner-ACC
'The wife has already cooked dinner.'

If (10a) is true, is (10b) also true?

Yes *No* *I don't know*

(11) a. Kogda mama prišla s raboty, deti delali
when mom came from work, children did.IMPF

domasn-juju rabot-u
home-ACC work-ACC
'When mom came from work, the children were doing their homework.'

b. Deti uže s-delali domasn-juju rabot-u
children already PF-did home-ACC work-ACC
'The children have already done their homework.'

If (11a) is true, is (11b) also true?

Yes *No* *I don't know*

(12) a. Kogda načalas' Perestrojka, Yurij rukovodil
when started Peresprojka Yurij managed.IMPF

otdel-om perevodčikov.
department-INSTR translators
'When Perestrojka started, Yurij was managing the department of translators.'

b. Yurij uže po-rukovodil otdel-om perevodčikov.
Yurij already PF-managed department-INSTR translators
'Yurij has already managed the department of translators.'

If (12a) is true, is (12b) also true?

Yes *No* *I don't know*

(13) a. U L'va Tolstogo bylo 13 detej
PR Lev Tolstoy was 13 children
'Lev Tolstoy had 13 children.'

b. Alexandra Tolstaja byla edinstvenym rebjonkom
Alexandra Tolstaja was only child

Lva Tolstogo
Lev Tolstoy
'Alexandra Tolstaja was Lev Tolstoy's only child.'

If (13a) is true, is (13b) also true?

Yes *No* *I don't know*

(14) a. Kogda podnjalsja zanaves, pianist akkompaniroval
when raised curtain pianist accompanied.IMPF

pevč-u na rojale.
singer-DAT at grand.piano
'When the curtain fell, a pianist was accompanying a singer at the grand piano.'

b. Pianist uže po-akkomponiroval pevč-u na rojale
pianist already PF-accompanied singer-DAT at grand.piano
'A pianist has already accompanied a singer at the grand piano.'

If (14a) is true, is (14b) also true?

Yes *No* *I don't know*

(15) a. Kogda nastupil večer, deti čitali skazk-i
when came evening children read.IMPF fairy.tale-ACC

Puškina
Puškin
'When evening came, the children were reading Pushkin's fairy tales.'

b. Deti uže pro-čitali skazk-i Puškina.
children already PF-read fairy.tale-ACC Puškin
'The children have already read Pushkin's fairy tales.'

If (15a) is true, is (15b) also true?

Yes *No* *I don't know*

(16) a. Kogda objavili požarnuju trevogy, Maša asistirovala
when declared fire alarm, Maša assisted.IMPF

izvestn-omu khirurg-u.
famous-DAT surgeon-DAT
'When the fire alarm went off, Maša was assisting a famous surgeon.'

b. Maša uže po-asistirovala izvestm-onu khirurg-u.
Maša already PF-assisted famous-DAT surgeon-DAT
'Maša has already assisted a famous surgeon.'

If (16a) is true, is (16b) also true?

Yes *No* *I don't know*

(17) a. Kogda prišla vesna na našej dače
when came spring at our cottage

stroiteli stroili nov-yj etaž-Ø
contractors buit.IMPF new-ACC floor-ACC
'When spring came, the contractors were building a new floor at our cottage.'

b. Stroiteli uže pri-stroili nov-yj etaž-Ø
contractors already PF-built new-ACC floor-ACC
'The contractors have already built a/the new floor.'

If (17a) is true, is (17b) also true?

Yes *No* *I don't know*

(18) a. Kogda načalsja dožd' deti igrali v
when began rain children played.IMPF in

football.
soccer
'When the rain started, children were playing soccer.'

b. Deti pri-šli domoj suhimi.
children PF-came home dry
'The children came home dry.'

If (18a) is true, is (18b) also true?

Yes *No* *I don't know*

APPENDIX E: GJ TASK IN RUSSIAN

Предложения, которые включены во вторую часть этого задания, организованы в 24 пары. Внимательно прочитайте предложения каждой пары и решите, которое из двух предложений – предложение в пункте (а) или предложение в пункте (б) – вы выберете как грамматически правильное предложение. Обведите ваш выбор – пункт (а) или (б) - в кружок. Если вы не уверены в своем ответе, вы можете выбрать вариант (в), «Я не знаю».
Например,

(1)

а. Молодой актер жаждал славы.

б. * Молодой актер жаждал славу.

в. Я не знаю.

Правильный ответ: Из двух предложений, представленных в примере (1а,б), было выбрано предложение (1а), потому что это оно является грамматически правильным предложением.

Прочитайте следующие предложения и решите, которое из двух предложений является грамматически правильным.

(1) а. Мама восхищалась успехами сына.

б. Мама восхищалась успехов сына.

в. Я не знаю.

(2) а. Где ты учишься?

б. Где ты учиться?

в. Я не знаю.

(3) а. Миша злоупотреблял алкоголя.

б. Миша злоупотреблял алкоголем.

в. Я не знаю.

(4) а. Строитель вбил гвоздь в стену.

б. Строитель вбил гвоздем в стену.

в. Я не знаю.

(5) а. Даша гордится детьми.
б. Даша гордится детей.
в. Я не знаю.

(6) а. Продавщица завернула подарка.
б. Продавщица завернула подарок.
в. Я не знаю.

(7) а. Письмо лежит под книга.
б. Письмо лежит под книгой.
в. Я не знаю.

(8) а. Мама выстирала рубашку.
б. Мама выстирала рубашке.
в. Я не знаю.

(9) а. Маша принесла котенка домой.
б. Маша принесла котенком домой.
в. Я не знаю.

(10) а. Каждый человек дорожит своим здоровьем.
б. Каждый человек дорожит своё здоровье.
в. Я не знаю.

(11) а. Студент докучал профессора своими вопросами.
б. Студент докучал профессору своими вопросами.
в. Я не знаю.

(12) а. Анна и Иван интересуется литературой.
б. Анна и Иван интересуются литературой.
в. Я не знаю.

(13) а. Подросток чуждался своей мамы.
б. Подросток чуждался свою маму.
в. Я не знаю.

(14) а. Анна позавидовала Алексея.
б. Анна позавидовала Алексею.
в. Я не знаю.

(15) а. Маша связала кофту.
б. Маша связала кофтой.
в. Я не знаю.

(16) а. Он никто не звонит.
б. Он никому не звонит.
в. Я не знаю.

(17) а. Даша убрала комнату.
б. Даша убрала комнате.
в. Я не знаю.

(18) а. В этом году Анна женилась на Иване.
б. В этом году Анна вышла замуж за Ивана.
в. Я не знаю.

(19) а. Родители помешали свадьбу дочери.
б. Родители помешали свадьбе дочери.
в. Я не знаю.

(20) а. Бабушка набросила платка на плечи.
б. Бабушка набросила платок на плечи.
в. Я не знаю.

(21) а. Ребята перебросили мяч через забор.

б. Ребята перебросили мячу через забор.

в. Я не знаю.

(22) а. Этот человек не стоит твоих слез.

б. Этот человек не стоит твои слезы.

в. Я не знаю.

(23) а. Каждый понедельник в восемь часов я иду университет.

б. Каждый понедельник в восемь часов я иду в университет.

в. Я не знаю.

(24) а. Девочка подбросила мячом высоко в небо.

б. Девочка подбросила мяч высоко в небо.

в. Я не знаю.

APPENDIX F: GJ TASK IN ENGLISH

The sentences below are organized in pairs. For every pair, read the sentences and decide which one you would accept as grammatical by circling (a) or (b). If you are not sure about your answer, choose the option *I don't know*.

For example, consider the data below:

a. Molodoj akter žaždal slav-y.
Young actor yearned.IMPF fame-GEN
'A/the young actor yearned for fame.'

b. *Molodoj akter žaždal slav-u.
Young actor wished.IMPF fame-ACC
'A/the young actor yearned for fame.'

c. *I don't know.*

Correct Answer: In the example presented above, sentence (a) is acceptable.

For the following sentences, decide which option is the correct one.

(1) a. Mama vosxičšalas' uspex-ami syna
mom admired.IMPF success-INSTR son
'Mom was admiring the success of her son.'

b. *Mama vosxičšalas' uspex-i syna
Mom admired.IMPF success-ACC son
'Mom admired/was admiring the success of her son.'

c. I don't know.

(2) a. Gde ty učišsja?[76]
where you study.IMPF
'Where do you study?'

[76] The examples in (2), (7), (12), and (16) and (23) are distractors.

b. *Gde ty učitsja?
where you study.IMPF.INF
'Where do you study?'

c. I don't know.

(3) a. Miša zloupotrebljal alkogol-em
Miša misued.IMPF alcohol-INSTR
'Misha was misusing alcohol.'

b. Miša zloupotrebljal alkogol-ja
Miša misued.IMPF alcohol-ACC
'Misha misused/ was misusing alcohol.'

c. I don't know.

(4) a. Stroitel' v-bil gvozd'-ø v stenu
construction.worker PF-beat nail-ACC in wall
'A construction worker hammered a nail into the wall.'

b. *Stroitel' v-bil gvozdj-om v stenu
construction.worker PF-beat nail-INSTR in wall
'A construction worker hammered a nail into the wall.'

c. I don't know.

(5) a. Daša gorditsja det'-mi
Daša be.proud.IMPF chidren-INSTR
'Dasha is proud of (her) children.'

b. *Daša gorditsja det'-ej
Daša be.proud.IMPF chidren-ACC
'Dasha is proud of (her) children.'

c. I don't know.

(6) a. Prodavščica za-vernula podarok-ø
sales.assistant PF-handled gift-ACC
'A sales assistant wrapped up the gift.'

b. *Prodavščica za-vernula podark-a
sales.person PF-handled gift-GEN
'A sales assistant wrapped up the gift.'

c. I don't know.

(7) a. Pis'mo ležit pod knig-oj
letter lie.IMPF under book-INTR
'A letter is under the book.'

b. *Pis'mo ležit pod knig-a
letter lie.IMPF under book-NOM
'A letter is under the book.'

c. I don't know.

(8) a. Mama vy-stirala rubašk-u
mom PF-washed shirt-ACC
'Mom washed the shirt.'

b. *Mama vy-stirala rubašk-e
mom PF-washed shirt-DAT
'Mom washed the shirt.'

c. I don't know.

(9) a. Maša pri-nesla kotjonk-a domoj
Maša PF-carried kitten-ACC home
'Maša brought the kitten home.'

b. *Maša pri-nesla kotjonk-om domoj
Maša PF-carried kitten-INSTR home
'Maša brought the kitten home.'

c. I don't know.

(10) a. Každyj čelovek dorožit svo-im zdorovj-em
every person cherish.IMPF his-INSTR health-INSTR
'Every person cherishes his/her health.'

b. *Každyj čelovek dorožit svoj-e zdorovj-e
every person cherish.IMPF his-ACC health-ACC
'Every person cherishes his/her health.'

c. I don't know.

(11) a. Student dokučal professor-u svoimi voprosami
student bothered.IMPF professor-DAT his/her questions
'A student was bothering the professor with his/her questions.'

b. *Student dokučal professor-a svoimi voprosami
student bothered.IMPF professor-ACC his/her questions
'A student was bothering the professor with his/her questions.'

c. I don't know.

(12) a. Anna i Ivan interesujutsja literature-oj
Anna and Ivan be.interested.IMPF-PL literature-INSTR
'Anna and Ivan are interested in literature.'

b. *Anna i Ivan interesu-jetsja literature-oj
Anna and Ivan be.interested.IMPF-SG literature-INSTR
'Anna and Ivan are interested in literature.'

c. I don't know.

(13) a. Podrostok čuždalsja svojej mam-y
teenager avoided.IMPF his/her-GEN mother-GEN
'A teenager avoided his/her mom.'

b. *Podrostok čuždalsja svoj-u mam-u
teenager avoided.IMPF his/her-ACC mother-ACC
'A teenager avoided his/her mom.'

c. I don't know.

(14) a. Anna po-zavidivala Aleksej-u
Anna PF-envied Aleksej-DAT
'Anna envied Aleksej.'

b. *Anna po-zavidivala Aleksej-a
Anna PF-envied Aleksej-ACC
'Anna envied Aleksej.'

c. I don't know.

(15) a. Maša s-vjazala koft-u
Maša PF-knitted jacket-ACC
'Maša knitted a jacket.'

b. *Maša s-vjazala koft-oj
Maša PF-knitted jacket-INSTR
'Maša knitted a/the jacket.'

c. I don't know.

(16) a. On nik-omu ne zvonit
he no.one-DAT not call
'He calls no one.'

b. *On nik-to ne zvonit
he no.one-NOM not call
'He calls no one.'

c. I don't know.

(17) a. Daša u-brala komnat-u
Daša PF-took room-ACC
'Daša cleaned the apartment.'

b. *Daša u-brala komnat-e
Daša PF-took room-DAT
'Daša cleaned the apartment.'

c. I don't know.

(18) a. V etom godu Anna vyšla zamuž za Ivana
in this year Anna go.out.PF marry to Ivan
'This year Anna married Ivan.'

b. *V etom godu Anna ženilas' na Ivane
in this year Anna married.PF to Ivan
'This year Anna married Ivan.'

c. I don't know.

(19) a. Roditeli po-mesali svad'b-e dočeri
parents PF-meddled marriage-DAT daughter
'The parents were meddling with the daughter's marriage.'

b. *Roditeli po-mesali svad'b-u dočeri
Parents PF-meddled marriage-ACC daughter
'The parents were meddling with the daughter's marriage.'

c. I don't know.

(20) a. Babuska na-brosila platok-ø na pleči
grandma PF-threw shawl-ACC on shoulders
'The grandmother threw her shawl on her shoulders.'

b. *Babuska na-brosila platk-a na pleči
grandma PF-threw shawl-GEN on shoulters
'The grandmother threw her shawl on her shoulders.'

c. I don't know.

(21) a. Reb'jata pere-brosili mjač-ø čerez zabor
boys PF-threw ball-ACC over fence
'The boys threw a ball over the fence.'

b. *Reb'jata pere-brosili mjač-u čerez zabor
boys PF-threw ball-DAT over fence
'The boys threw a ball over the fence.'

c. I don't know.

(22) a. Etot čelovek ne stoit tvo-ix sl'joz-ø
this person not deserve your-GEN tears-GEN
'This person does not deserve your tears.'

b. *Etot čelovek ne stoit tvo-i sl'joz-y
this person not deserve your-ACC tears-ACC
'This person does not deserve your tears.'

c. I don't know.

(23) a. Kazdyj ponedel'nik v vosem' časov ja idu
Every Monday at eight o'clock I go.IMPF

v universitet.
to university
'Every Monday at eight, I go to the university.'

b. *Kazdyj ponedel'nik v vosem' časov ja xožu
Every Monday at eight o'clock I go.IMPF

v universitet.
to university
'Every Monday at eight, I go to the university.'

c. I don't know.

(24) a. Devočka pod-brosila mjač-Ø vysoko v nebo
girl PF-threw ball-ACC high in sky
'A girl threw the ball up high in the sky.'

b. *Devočka pod-brosila mjač-om vysoko v nebo
girl PF-threw ball-INSTR high in sky
'A girl threw the ball up high in the sky.'

c. I don't know.

APPENDIX G: EP TASK IN RUSSIAN

Перед вами 15 коротких рассказов. Внимательно прочитайте каждый рассказ и письменно ответьте на вопрос о рассказе, используя предложение-подсказку. Для того чтобы правильно ответить на вопрос, в преложении- подсказке выбирете правильную глагольную приставку и правильную грамматическую форму имени существительного. Запишите ваш ответ в отведенном для этого месте.

НАПРИМЕР:

Сегодня дети вели себя очень плохо. Утром они разбросали по комнате все свои игрушки, а днем они разбили мамину любимую вазу.

ВОПРОС:

Что сделали дети сегодня днем?

ПОДСКАЗКА:

Днем дети разбили ВАЗА

ПРАВИЛЬНЫЙ ОТВЕТ:

Днем дети разбили вазу.

Короткие Рассказы

1) В 1987 году русский поэт Иосиф Бродский был награжден Нобелевской премией в области литературы. Бродский вырос и жил в Ленинграде. Советские власти преследовали Бродского из-за его поэзии. Бродский был вынужден покинуть Россию в 1972 году.

ВОПРОС:

Когда Бродский покинул Россию?

ПОДСКАЗКА:

Бродски уехал из РОССИЯ в 1972 году.

ПРАВИЛЬНЫЙ ОТВЕТ :

_____

_____

2) Петер Первый правил Россией с 1682 года по 1725 год. Он стал известным благодаря многим реформам, которые модернизировали Россию в области образования, религии и военного дела. Так, например, во время его правления в России открылся один из первых музеев антропологии и этнографии. С момента своего открытия этот музей был известен как «Кунсткамера».

ВОПРОС :

Как долго продолжалось царствование Петра Первого?

ПОДСКАЗКА :

Петр Первый управлял СТРАНА 43 года.

ПРАВИЛЬНЫЙ ОТВЕТ :

_____

_____

3) В романе Толстого «Анна Каренина», Анна полюбила молодого офицера Алексея Вронского. Когда Вронский принимал участие в ежегодных имперских скачках, его конь упал и был смертельно ранен. Чтобы прекратить его страдания, Вронский застрелил коня. После этого трагического события на скачках, Анна призналась мужу, что она любит Алексея.

ВОПРОС:

Что сделал Вронский когда он увидел, что его конь был смертельно ранен?

ПОДСКАЗКА :

Вронский убил КОНЬ

ПРАВИЛЬНЫЙ ОТВЕТ :

_____

_____

4) Александр Сергеевич Пушкин, известный русский поэт 19-го века, создал много незабываемых литературных героев. Евгений Онегин, привилегированный молодой человек, был одним из героев, созданных Пушкиным. Онегин бездарно провел свою молодость. Он посещал многочисленные балы, прокутил унаследованное состояние своего дяди, убил на дуэли своего друга и оскорбил достоинство Татьяны. Нечего удивляться, что в конце романа он предстает перед нами как человек, разочарованный в своей жизни.

ВОПРОС :

Когда Пушкин написал поэму “Евгений Онегин”?

ПОДСКАЗКА:

Александр Пушкин написал ПОЭМА “Евгений Онегин” в 19-ом веке.

ПРАВИЛЬНЫЙ ОТВЕТ:

_____

_____

5) Известная шведская писательница Астрид Линдгрен написала книгу о дружбе между маленьким мальчиком по имени Малыш и сказочным персонажем Карлсоном, который живет на крыше. Когда Малыш впервые увидел Карлсона, он очень смутился и не знал, что сказать Карлсону.

ВОПРОС:

Как почувствовал себя Малыш, когда он в первый раз встретился с Карлсоном?

ПОДСКАЗКА:

Малыш постеснялся КАРЛСОН.

ПРАВИЛЬНЫЙ ОТВЕТ:

_____

_____

6) Во время Великой Отечественной Войны, Ленинград был окружен кольцом блокады в течение 872 дней. Не только жители Ленинграда, но и его красивые здания, улицы и музеи, включая Эрмитаж, были под угрозой уничтожения. Во время войны работники Эрмитажа жертвовали своей жизнью, чтобы спасти драгоценную коллекцию этого уникального музея.

ВОПРОС:

Что сделали работники Эрмитажа во время ленинградской блокады?

ПОДСКАЗКА:

Они помешали УНИЧТОЖЕНИЕ музея

ПРАВИЛЬНЫЙ ОТВЕТ:

_____

_____

7) Когда Наполеон вступил в Москву в сентябре 1812 года, он увидел перед собой опустевший город. Наполеон был разочарован, потому что никто из жителей Москвы не приветствовал его у ворот города. Вскоре начавшиеся в городе пожары оставили французскую армию без крова. Наполеон был вынужден оставить Москву в октябре 1812 года.

ВОПРОС:

Что сделал Наполеон в октябре 1812 года?

ПОДСКАЗКА:

Наполеон отступил от Москва.

ПРАВИЛЬНЫЙ ОТВЕТ:

_____

_____

8) Туристы отправились в горную экспедицию на Кавказ. Они взбирались на одну из гор Кавказа целое утро. В полдень, когда они достигли вершины горы, перед ними открылся красивый пейзаж. Перед тем как продолжить свою экспедицию, туристы решили провести целый час на вершине горы.

ВОПРОС:

Что сделали туристы в полдень, после того как они достигли вершины горы?

ПОДСКАЗКА:

Туристы полюбовались ПЕЙЗАЖ с двенадцати до часу дня.

ПРАВИЛЬНЫЙ ОТВЕТ:

_____

_____

9) Двадцать вторые зимние олимпийские игры будут проходить в Сочи в 2014 году. Подготовка к играм идет день и ночь. Владимир Путин посетил Сочи зимой 2013 года. Будучи президентом России, Путин использовал свои высокие полномочия и заказал больше искусственного снега для олимпийских склонов.

ВОПРОС :

Что сделал Владимир Путин?

ПОДСКАЗКА :

Он воспользовался ПОЛОЖЕНИЕ и заказал больше снега.

ПРАВИЛЬНЫЙ ОТВЕТ :

_____

_____

10) В 1994 году известный режиссер Никита Михалков получил награду Оскар за свой фильм «Утомленные солнцем». Фильме рассказывает о жизьни комдива Сергея Котова и его семье во время сталинских репрессий.

ВОПРОС:

О ком Михалков придумал историю для своего фильма «Утомленные солнцем»?

ПОДСКАЗКА:

Михалков придумал ИСТОРИЯ о Сергее Котове и его семье.

ПРАВИЛЬНЫЙ ОТВЕТ:

_____

_____

11) В 1856 году московский купец Павел Третьяков стал коллекционировать картины русских художников. Много лет спустя он подарил свою коллекцию городу Москве. Так была создана Государственная Третьяковская Галлерея, знаменитый музей, где хранится более чем 170,000 работ, созданных выдающимися русскими художниками.

ВОПРОС:

Чем знаменит Третьяков?

ПОДСКАЗКА:

Он поспособствовал РАЗВИТИЕ русского искусства.

ПРАВИЛЬНЫЙ ОТВЕТ:

_____

_____

12) Советский писатель Виктор Драгунский написал много рассказов о мальчике Дениске. В рассказах Драгунского проказник Дениска попадает в разные истории, плохие и хорошии, и совершает разные поступки. В одном из рассказов Дениска получил плохую оценку по пению. Чтобы не огорчить маму, он аккуратно исправил плохую оцеку «2» на хорошую оценку «4». В рассказе обман раскрылся и Дениска понял, что «тайное всегда становится явным».

ВОПРОС:

Что сделал Дениска в одном из рассказов Драгунского?

ПОДСКАЗКА:

Дениска подделал ОЦЕНКА

ПРАВИЛЬНЫЙ ОТВЕТ:

_____

_____

13) Великий русский поэт Александр Сергеевич Пушкин был женат на Наталии Гончаровой. Красавица Гончарова любила балы и светские развлечения. Ходили слухи, что она была замешана в любовной связи с французом по имени Д'Антес. Когда слухи о возможной любовной связи между Д'Антесом и Наталией дошли до Пушкина, поэт вызвал Д'Антеса на дуэль.

ВОПРОС:

Почему Пушкин вызвал Д'Антеса на дуэль?

ПОДСКАЗКА:

Пушкин узнал об ИЗМЕНА своей жены.

ПРАВИЛЬНЫЙ ОТВЕТ:

_____

_____

14) В этом семестре, студенты изучающие русский язык и литературу, должны были закончить чтение пьесы Антона Павловича Чехова «Три сестры». В пьесе говорится о жизни трех сестер и их брата, которые живут в маленьком провинциальном городке. Сестры мечтают о переезде в Москву и о начале более интересной, наполненной событиями жизни. «Три сестры» - это пьеса о несбывшихся мечтах и жизненных разочарованиях.

ВОПРОС:

Что делали студенты в этом семестре?

ПОДСКАЗКА:

В этом семестре студенты прочитали ПЬЕСА Чехова “Три Сестры”

ПРАВИЛЬНЫЙ ОТВЕТ:

_____

_____

15) В романе Толстого «Война и мир» Наташа Ростова, одна из главных героинь романа, полюбила графа Андрея Болконского. Наташа и Андрей решили пожениться, но перед свадьбой они решили держать свою помовку в секрете. На одном из балов Наташа встретила светского ловеласа Анатолия Курагина, который уговорил ее бежать с ним. Побег Наташи и Курагина был предотвращен. Узнав о побеге, Андрей Болконский расторг помовку с Наташей.

ВОПРОС :

Что сделал Андрей Болконский после того, как он узнал о побеге?

ПОДСКАЗКА:

Андрей Болконский разлюбил НАТАША.

ПРАВИЛЬНЫЙ ОТВЕТ:

_____

_____

APPENDIX H: EP TASK IN ENGLISH

Instructions

In this task, you have to answer a question about a short story. A prompt written after the story will help you to answer the question. The story and the question are written in English, whereas the prompt is written in Russian. In order to answer the question, for each NOUN provided in the prompt choose the correct form. Write your answer to the question in the space provided.

SAMPLE*:*

The children misbehaved today. In the morning, they scattered all the toys around the room, and in the afternoon, they broke their mom's favourite vase.

QUESTION:

What did the children do in the afternoon?

PROMPT:

Dnem	deti	raz-bili	VAZ-A.
afternoon	children	PF-beat	vase-NOM

'In the afternoon the children broke the vase.'

CORRECT ANSWER:

Dnem	deti	raz-bili	vaz-u.
afternoon	children	PF-beat	vase-ACC

'In the afternoon the children broke the vase.'

The Test Tasks

1) Josif Brodsky is a Russian poet, who won the Nobel Prize in literature in 1987. He grew up and lived in St. Petersburg. Because of his poetry, Brodsky was persecuted by the Soviet authorities. He left Russia in 1972.[77]

[77] The examples in (1), (7), (13) are distractors.

Question:

When did Brodsky leave Russia?

Prompt:

Brodsky	u-jexal	iz	ROSI-JA	in	1972.
Brodsky	PF-went	from	Russia-NOM	in	1972

'Brodsky left Russia in 1972.'

Correct Answer:

Brodsky	u-jexal	iz	Rosi-ji	in	1972.
Brodsky	PF-went	from	Russia-GEN	in	1972

'Brodsky left Russia in 1972.'

2) Peter the Great ruled Russia from 1682 to 1725. He was famous for many reforms that modernized Russia in the areas of education, religion and the military. For example, under his rule, one of the first public museums of anthropology and ethnography was established in Russia, which was originally known as Kunstkamera.

Question:

How long did Peter the Great rule the country?

Prompt:

Pjotr	Pervyj	upravljal	STRAN-A	sorok	tri	goda
Pjotr	first	managed.IMPF	country-NOM	forty	three	years

'Peter the Great ruled the country for 43 years.'

Correct Answer:

Pjotr	Pervyj	upravljal	stran-oj	sorok	tri	goda
Pjotr	first	managed.IMPF	country-INSTR	forty	three	years

'Peter the Great ruled the country for 43 years.'

3) In Tolstoy's novel "Anna Karenina", Anna fell in love with a young officer named Alexij Vronsky. When Vronsky was participating in the annual horse race, his horse fell down and badly injured herself. Vronsky decided to kill the horse. After the incident at the race, Anna told her husband that she was in love with Alexij.

Question:

What did Vronsky do?

Prompt:

Vronsky u-bill KON'-Ø
Vronsky PF-beat horse-NOM
'Vronsky killed the horse.'

Correct Answer:

Vronsky u-bil kon'j-a
Vronsky PF-beat horse-ACC
'Vronsky killed the horse.'

4) Alexander Pushkin, a great Russian writer of the 19th century, created many unforgettable literary characters. One of his characters was a privileged young man named Eugene Onegin. Onegin spent the early years of his life attending countless parties, squandering his inheritance and hurting people who loved him. No wonder that he became disillusioned with his life.

Question:

When did Pushkin write "Eugene Onegin"?

Prompt:

Alexandr Puškin na-pisal POEM-A 'Evgenij Onegin' v
Alexandr Puškin PF-wrote poem-NOM 'Evgenij Onegin' in
19-om veke
19-th century
'Alexander Pushkin wrote the poem 'Evgenij Onegin' in the 19th century.'

Correct Answer:

Alexandr Puškin na-pisal poem-u 'Evgenij Onegin' v
Alexandr Puškin PF-wrote poem-ACC 'Evgenij Onegin' in
19-om veke
19-th century
'Alexander Pushkin wrote the poem 'Evgenij Onegin' in the 19th century.'

5) Astrid Lindgren, a famous Swedish children's writer, created a story about a friendship between a little boy named Lillebror and a mischievous man with a propeller on his back whose name was Karlsson. When Lillebror and Karlsson met for the first time, Lillebror felt shy.

Question:

How did Lillebror feel the first time he met Karlsson?

Prompt:

Lillebror po-stesnjalsja KARLSSON-ø
Lillebror PF-felt.shy Karlsson-NOM
'Lillebror felt shy when he met Karlsson.'

Correct Answer:

Lillebror po-stesnjalsja Karlson-a
Lillebror PF-felt.shy Karlson-GEN
'Lillebror felt shy when he met Karlsson.'

6) During World War II, Leningrad had been under siege for 872 days. Not only the people of Leningrad, but its beautiful buildings, streets and museums, including the Hermitage, were under the threat of destruction. In order to protect the great art stored in the museum's basements, the Hermitage's curators and staff sacrificed their lives.

Question:

What did the Hermitage's curators and staff do during World War II?

Prompt:

Oni po-mešali UNIČTOŽENI-JE' museja
they PF-prevented destruction-NOM museum
'They prevented the destruction of the museum.'

Correct Answer:

Oni po-mešali uničtoženi-ju museja
they PF-prevented destruction-DAT museum
'They prevented the destruction of the museum.'

7) When Napoleon entered Moscow in 1812, the city was empty. Napoleon was disappointed because nobody greeted him at the city's gate. Soon the first fires started to break up in the city leaving the French Army without any shelter. Napoleon was forced to withdraw from Moscow in October, 1812.

Question:

What did Napoleon do in October, 1812?

Prompt:

Napoleon	ot-stupil	ot	MOSKV-A
Napoleon	PF-stepped	from	Moskva-NOM

'Napoleon withdrew from Moscow.'

Correct Answer:

Napoleon	ot-stupil	ot	Moskv-y
Napoleon	PF-stepped	from	Moskva-GEN

'Napoleon withdrew from Moscow.'

8) The tourists went to the Caucasus Mountains. They were climbing the mountains the whole morning. When they reached the peak, they saw a beautiful landscape. In the afternoon, they spent an hour enjoying the landscape before they continued their expedition.

Question:

What did the tourists do in the afternoon?

Prompt:

Tourists	po-ljubovalis'	PEJZAŽ-ø	s	12	do	1	dnja.
tourists	PF-enjoyed	landscape-NOM	from	12	to	1	afternoon

'The tourists enjoyed the landscape from noon to one.'

Correct Answer:

Touristy	po-ljubovalis'	pejzaž-em	s	12	do	1	dnja
tourists	PF-enjoyed	landscape-INSTR	from	12	to	1	afternoon

'The tourists enjoyed the landscape from noon to one.'

9) The 22nd Winter Olympic Games will take place in Sochi, Russia, in 2014. The preparations for the Games are ongoing day and night. Vladimir Putin visited Sochi in winter 2013. He used his authority as the President of Russia and ordered more artificial snow for the Olympic slopes.

Question:

What did Vladimir Putin do?

Prompt:

On	vos-pol'zovalsja	POLOŽENI-JE	i	zakazal	bol'še	snegu
he	PF-used	authority-NOM	and	ordered	more	snow

'He used his authority and ordered more snow.'

Correct Answer:

On	vos-pol'zovalsja	polozenij-em	i	zakazal	bol'še	snegu
he	PF-used	authority-INSTR	and	ordered	more	snow

'He used his authority and ordered more snow.'

10) In 1994, Nikita Mixalkov, a famous Soviet/ Russian movie director, received the Academy Award for his film 'Burnt by the Sun' in the best foreign language film category. In his film, Mixalkov created a story about Segej Kotov, a senior Red Army officer, and his family who lived in Stalin's Russia.

Question:

In his film 'Burnt by the Sun', who did Mixalkov create the story about?

Prompt:

Mixalkov	pri-dumal	ISTORI-JA	o
Mixalkov	PF-thought	story-NOM	about

Sergeje	Kotove	i	ego	semje
Sergej	Kotov	and	his	family

'Mikhalkov created a story about Sergej Kotov and his family.'

Correct Answer:

Mixalkov	pri-dumal	istori-ju	o
Mixalkov	PF-thought	story-ACC	about

Sergeje	Kotove	i	ego	semje
Sergej	Kotov	and	his	family

'Mikhalkov created a story about Sergej Kotov and his family.'

11) In 1856 the Moscow merchant Pavel Tretjakov started acquiring works by Russian artists. Later he donated his collection to the city of Moscow. The State Tretjakov Gallery has since become a world-famous museum with more than 170,000 works by Russian artists.

Questions:

What did Tretjakov do?

Prompt:

On	po-sposobstvoval	RAZVITI-JE	russkogo	iskustva
he	PF-promoted	development-NOM	Russian	art

'He promoted the development of Russian art.'

Correct Answer:

On	po-sposobstvoval	razviti-ju	russkogo	iskustva
he	PF-promoted	development-DAT	Russian	art

'He promoted the development of Russian art.'

12) The Soviet writer, Viktor Dragunsky wrote many stories about a character named Deniska. Deniska is a mischievous boy who is far from being perfect. Once he forged his grade in order to please his parents. In the story, the forgery is discovered and Deniska learns the lesson that telling the truth is always better than telling a lie.

Question:

What did Deniska do?

Prompt:

Deniska	pod-delal	OCENK-A
Deniska	PF-did	grade-NOM

'Deniska forged his grade.'

Correct Answer:

Deniska	pod-delal	ocenk-u
Deniska	PF-did	grade-ACC

'Deniska forged his grade.'

13) Alexander Pushkin, a great Russian writer, was married to Natalja Goncharova. In 1835 she was alleged to have an affair with d'Anthès, a French immigrant to Russia. When Pushkin learned about the alleged affair, he became angry and fought a duel with d'Anthès.

Question:

Why did Puškin become angry?

Prompt:

Puškin	u-znal	ob	IZMEN-A	svojej	ženy
Puškin	PF-learned	about	adultery-NOM	his	wife

'Pushkin learned about his wife's affair.'

Correct Answer:

Puškin	u-znal	ob	izmen-e	svojej	ženy
Puškin	PF-learned	about	adultery-PREP	his	wife

'Pushkin learned about his wife's affair.'

14) This semester, the students enrolled in the Russian language program were asked to finish reading "Three Sisters" by Anton Chekhov. The play is centered around the lives of three sisters and their brother who live in a small provincial town in Russia. Throughout the play the siblings dream about starting a more eventful and meaningful life by moving to Moscow. "Three Sisters" is a play about unrealized dreams.

Question:

What play did the students finish reading this semester?

Prompt:

V	etom	semestre	studenty	pro-čitali	P'ES-A	Čexova
in	this	semester	students	PF-read	play-NOM	Čexova

"Tri Sestry".
Three sisters
'This semester the students read Chekhov's play "Three Sisters".'

Correct Answer:

V	etom	semestre	studenty	pro-čitali	p'es-u	Čexova
in	this	semester	students	PF-read	play-ACC	Čexova

"Tri Sestry".
three sisters
'This semester the students finished reading Chekhov's play "Three Sisters".'

15) In Tolstoy's novel "War and Peace", Natasha Rostova, one of the main characters, fell in love with Andrej Bolkonskji. They were secretly engaged to be married. At one of the balls, Natasha met Anatoly Kuragin and decided to run away with him. After the incident, Bolkonskij stopped loving Natasha and broke off the engagement.

Question:

What did Andrej Bolkonski do after the incident?

Prompt:

Andrej	Bolkonsky	raz-ljubil	NATAŠ-A
Andrej	Bolkonsky	PF-loved	Nataša-NOM

'Andrej Bolkonsky fell out of love with Natasha.'

Correct Answer:

Andrej	Volkonsky	raz-ljubil	Nataš-u
Andrej	Volkonsky	PF-loved	Nataša-ACC

'Andrej Bolkonsky fell out of love with Natasha.'