The Pennsylvania State University
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CROSSING AND BRIDGING SPACES IN A SECOND LANGUAGE:
A CORPUS-BASED INVESTIGATION OF MOTION TALK BY AMERICAN LEARNERS OF RUSSIAN

A Thesis in
Applied Linguistics
by
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Abstract

Every sphere of human life and development is intimately connected with motion. Just as motion is interwoven into our way of life, linguistic expressions of motion events permeate human language. For second language (L2) learners, the ability to express and understand motion events as they are encoded in an L2 is central for their successful interaction, functioning, and socialization in a new linguistic and cultural community.

My dissertation employs contrastive learner corpus analysis (CLCA) methodology to investigate to what extent highly proficient American learners of Russian (RL2) are able to utilize the lexical, semantic, and structural potential of Russian in unrehearsed contextualized descriptions of motion events. The study draws on a large spoken learner corpus, as well as parallel baseline native Russian and English corpora comprised of narratives elicited through visual stimuli (two short movie clips and a picture book). The dissertation investigates which linguistic structures are favored by the participants (Russian and English native speakers as well as RL2 learners) in the context of the same narrative tasks. Drawing on the learner corpus, the study additionally analyzes learner choices and discussed the most problematic aspects of motion talk for RL2 learners with varying levels of experience in using Russian in communicative contexts.

By offering empirically-based insights into the use and acquisition of RL2 motion talk, the study contributes to the under-researched fields of RL2 learning and teaching. The study additionally contributes to the field by proposing new ways of teaching motion talk and developing innovative corpus-based materials for RL2 learners of different proficiency levels.
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Thank you!
Chapter 1
Bridges to cross: Introduction

1.1. Problem statement

According to the Foreign Service Institute of the U. S. Department of State\(^1\), an adult native speaker of English should expect to spend approximately 1100 class hours on learning Russian before achieving professional speaking and reading proficiency. The Foreign Service Institute categorizes Russian as a language with significant linguistic and/or cultural differences from English. While the Russian grammatical system is in general difficult to master for American learners, they commonly concur that the expression of motion tops the list of the most challenging areas in Russian grammar. Language educators are of a similar opinion as well: the topic is given a prominent role in the pedagogical materials for learners of Russian as a second language (RL2) in the U.S.

Russian *verbs of motion* (VoM) have traditionally been singled out as the main linguistic component through which motion is encoded in Russian; VoM are also deemed to cause significant difficulties for RL2 learners. For example, the program for the upcoming annual meeting of AAASS\(^2\) 2007 includes two panels devoted to Russian VoM, with one of the panels titled *Everybody’s headache or Russian verbs of motion*.

VoM are often discussed by Slavic linguists as unique both in terms of their intricate structural and semantic characteristics which have no parallels in other languages, including English and even some other Slavic languages, e.g. Bulgarian (Bondarchuk, 2002; Popova, 1989). Afifi (1968) writes (p.79):

> Verbs of motion is one of the most difficult topics for foreigners learning Russian, and not only for beginners but also for students at advanced levels of proficiency

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\(^1\) http://www.state.gov/m/fsi/
\(^2\) American Association for the Advancement of Slavic Studies
when they are confronted with the topics of stylistics and get acquainted with the phenomena of polysemy, synonymy, and antonymy (my translation).

Other sources similarly reflect frustration of language instructors and contain testimonials of learners’ difficulties in acquiring motion verbs. For example, Pahomov (1977; 1979) reports that his students feel particular anxiety and even fear when faced with the topic of VoM which, as he argues, “damages their self-assuredness of expression and hampers further acquisition of the language” (1977, p.1). Students frequently refer to one’s ability to use VoM as a benchmark for measuring fluency: if one manages to use VoM correctly, s/he must be a fully proficient user of Russian (personal communication with RL2 students).

The expression of motion is not a trivial topic for learners of any language. The semantic domain of motion is intriguing for a number of reasons. Thus, motion is intimately interconnected with almost every sphere of human life and development. Ability to express and understand motion events as they are encoded in a language is central for human interaction and cognition. In literal and metaphorical language, motion meanings permeate our speech and conceptualizations of the world, e.g. consider: The time has really flown by. We need to catch up. What is going on? I was blown away by the book. The money is running out. She waltzed through the program. Bowerman and Choi (1999) emphasize that the system for encoding spatial meanings is important not only on its own rights but because it also provides core structuring principles even for the meanings that are not fundamentally spatial. It would be impossible to carry out a conversation or tell a story without expressing motion meanings. Therefore, it is only expected that expression of motion should warrant particular attention among linguists interested in the issues of theoretical syntax, but also cognition and L2 acquisition
processes associated with teaching/learning motion talk.

The conclusion that ensues for the fields of L2 learning and teaching is that the ability to encode motion meanings is instrumental for learners’ functioning in a new language and for reaching advanced levels of proficiency. The notoriety of Russian motion talk among English-speaking learners indicates that this domain of Russian grammar is particularly deserving of attention by researchers in the field of second languages acquisition.

1.2. Research gap

Slavic pedagogical sources frequently lament the difficulty of teaching Russian motion talk and the problematicity of the topic for RL2 learners. It appears that L2 learners from various language backgrounds experience challenges in this area of Russian grammar, including native speakers of other Slavic languages such as Bulgarian (Bondarchuk, 2002; Mikhailova, 1978; Popova, 1989; Rakhilina & Prokof’eva, 2004; Shikerov Vasil’ev, 2006) and Polish (Stefanskii, 2002). The expression of motion in Russian appears even more challenging for speakers of non-Slavic languages such as Hungarian (Iaaoshne, 1988), Italian (Sottofattori, 2000), Arabic (Afifi, 1968), German (Ignat’eva, 1980), and, most importantly for this study, English (e.g. Bondarchuk, 2002; Kuper, 1971; Mahota, 1996; Murav’eva, 2006; Pahomov, 1977, 1979; Sholanke, 1978; Stil’man, 1951; Wertz, 1979). Additionally, a number of authors have put forward materials designed to present the semantic domain of motion in Russian to the general group of RL2 learners irrespective of their L1 backgrounds (e.g. Barykina et al., 1978; Bashilova & Mel’nikova, 1967; Bitekhtina & Iudina, 1978a, 1978b, 1978c, Skvortsova,
While the multiplicity of textbooks and articles which present methodological suggestions and share pedagogical concerns related to the challenges of teaching motion talk is impressive, to the best of my knowledge, acquisition of this grammatical topic by RL2 learners remains virtually unresearched from an empirical perspective. A search across several databases (Dissertation Abstracts, Educational Resources Information Center Databases, Ingenta, ProQuest Direct, Linguistics and Language Behavior Abstracts) and journals (Slavic and Eastern European Journal, Russian Language Journal, Russkii Iazyk za Rubezhom [Russian Language Abroad], Inostrannye Iazyki za Rubezhom [Foreign Languages Abroad]) revealed a significant gap in empirical data related to the acquisition of Russian motion talk by L2 learners. The neglect for empirical studies strongly suggests that current pedagogical materials are not guided by acquisitional research but rather by the intuitions of textbook writers about which aspects of motion talk should be addressed in RL2 classrooms.

Empirically-grounded research on motion talk acquisition by RL2 learners is crucial for a number of pedagogical and theoretical reasons. First of all, encoding of motion is a multifaceted domain structurally, lexically, and semantically. And while it is attested that motion talk is a challenging area for RL2 learners, we have no knowledge of which specific elements involved in the encoding of motion meanings are problematic or, vice versa, easy for learners, which elements learners use erroneously, and which structures they overuse or avoid. The answers to these questions are necessary for establishing pedagogical priorities and creating informed lesson plans and instructional materials for L2 learners.
Secondly, it is important to establish why English-speaking learners of Russian find encoding of motion difficult, i.e. there is a need to determine which linguistic strategies RL2 learners might “carry over” from English into Russian that would impede the acquisition process. To answer this question, analysis of learner speech bolstered by contrastive analysis of motion talk by native speakers of Russian and English is needed to establish how diverging patterns for encoding motion in the two languages affect L2 learning processes.

Finally, the insights gained from acquisition research can guide language educators in developing new methods and instructional materials for addressing motion talk in RL2 classrooms. At the present time, there is a variety of textbooks that address the topic of motion expression in Russian, but given the scarcity of empirical research, it is unclear whether the explanations and tasks in the textbooks identify the “trouble spots” correctly. Proliferation of teaching materials and methods which are not substantiated by empirical research can be a long and thorny path to identifying effective RL2 pedagogy. Accordingly, the goal of this dissertation is to report on an extensive empirical research project on the acquisition of motion talk by L2 learners of Russian.

1.3. Bridging the paradigms

To explore how motion is acquired by English-speaking learners of Russian, it is important to describe first how motion is expressed in Russian, i.e. which specific surface structures are typically used to denote motion meanings by monolingual users of Russian. The next important step is to identify how the linguistic structures involved in the encoding of motion in Russian compare to those in English (the learners’ first language
Thus, Viktor Vladimirovich Vinogradov, one of the most influential Russian linguists of the 20th century, wrote:

Naturally, the analysis of the categories of the Russian language and their functions is much deeper and more comprehensive when it is conducted as part of special comparative investigations devoted to the comparative or contrastive study of certain parallel constructions in Russian and other languages or to the ways of the expression of various grammatical notions of the Russian language though the equivalent forms found in other languages […] (1955, cited in Sholanke, 1978, p.73, my translation).

Smirnitskii (1970) in his book devoted to the contrastive analysis of English and Russian grammars has similarly pointed out that when languages are compared, even the specifics of one’s native language are better noted, understood, described, and, as a consequence, better taught. In the US, the value of contrastive analysis and the study of crosslinguistic influences for the fields of language learning and teaching (see Chapter 4) have also been duly noted. For example, Odlin (2006, p.26) writes:

I am convinced […] that teachers who can carefully compare the native and target languages are especially qualified to help their students.

The task of contrasting motion domains in English and in Russian is complicated by such factors as differences in terminology and the scope of analysis which characterize current literature on the topic. Thus, two almost entirely distinct bodies of research have been identified as the points of reference for this study of motion domains in English and Russian. One of these paradigms of motion research is grounded in Leonard Talmy’s (1985, 2000a, 2000b) crosslinguistic typology of motion events.
Talmy’s work considers the expression of motion primarily through the lens of lexicalization patterns and conceptual core schemas involved in the encoding of certain semantic elements relevant to motion (i.e. *path of motion*, *manner* in which a person or an object moves, etc. (see Chapter 2)). While English has been meticulously studied and described within this paradigm of research, Russian has received only general treatment. On the other hand, the review of the specialized Slavic literature reveals that the current descriptions of how motion is encoded in Russian are almost unaffected by the general typological work of Talmy and his colleagues; the analysis of conceptual core schemas involved in the encoding of motion events is not characteristic of the work of Slavic linguists.

Moreover, Slavic linguists have traditionally singled out disjoint morphosyntactic categories in their descriptions of how motion is expressed and have predominantly favored verbs as theoretical and pedagogical foci (more specifically, a closed class of paired VoM, as Chapter 3 discusses). Consequently, while the work of Slavic linguists is detailed and plentiful, its scope is narrower as it does not include the study of *patterns* used for the encoding of motion, as it is the case with the typological literature.

This dissertation draws on, and bridges, the two research traditions. The scope of the analysis involves identifying differences and similarities in lexicalization *patterns* and conceptual core schemas used for the expression of motion meanings in L1 English and Russian, as well as in the RL2 learners’ speech. The *constituents* of these patterns are also thoroughly described from morphosyntactic and semantic perspectives, thus, highlighting the idiosyncratic characteristics of motion structures in the two languages and allowing for a comprehensive analysis of crosslinguistic influences in learner speech.
The data on which I draw in this empirical investigation are comprised of the actual occurrences of motion description in RL2 learners’ speech organized into a systematic corpus. To collect contextualized motion descriptions, visual stimuli (a series of short films and a pictured story book) with multiple motion scenes were used to elicit oral narratives. Besides the corpus of RL2 learner narratives, the data also include benchmark monolingual corpora consisting of parallel motion narratives related by native speakers of English and native speakers of Russian.

1.4. Concerns and objectives

This dissertation is motivated by both theoretical and pedagogical concerns. The primary goal is to uncover which aspects of motion talk are particularly difficult to acquire for adult RL2 learners. It is hoped that the findings of the study will not only inform the field of SLA in general and Russian SLA in particular, but that they will result in pedagogical recommendations and insights for improving the efficacy of RL2 instructional practice and materials development.

The first objective of this dissertation is to investigate which specific linguistic structures are characteristic of motion talk in the speech of monolingual speakers of Russian and English in the contexts provided by the elicitation tasks. This objective allows for the establishing of benchmarks against which the performance of RL2 speakers can be assessed and analyzed. The second objective focuses on differences in the expression of motion meanings in the speech of RL2 learners and monolingual speakers of Russian and on the potential influence of the learners’ L1 in their use of motion talk in Russian in the context of the same elicitation tasks. The third, and final,
objective is to investigate learner speech as a developmental system; that is, to determine the specific structures that are characteristic of RL2 motion talk, and the differences in motion talk between the more and the less experienced (cf. definitions in Chapter 4) learner groups. The primary data for the study are taken from a corpus of L1 Russian, L1 English and L2 Russian speakers. How the corpus was constructed is explained in Chapter 4.

1.5. Structure of the dissertation

In addition to the introductory chapter, the dissertation is divided into six chapters. Chapter 2 is devoted to the topic of typological research on the expression of motion meanings by speakers of various languages. I begin by briefly addressing the controversy between universal and neo-Whorfian views on encoding of motion events; I then proceed by outlining a prominent typological approach to the crosslinguistic study of motion expressions originally put forward by Talmy (1985, 2000a, 2000b) and applied to the study of motion talk in more than 70 languages by his colleagues (e.g. see volumes by Berman & Slobin, 1994; Hickmann & Robert, 2006; Niemeir & Dirven, 2000; McNeill, 2005; Strömqvist & Verhoeven, 2003; Verhoeven & Strömqvist, 2001). Moreover, I explain why Talmy’s typology is a productive base for conducting L1 and L2 acquisition studies in the area of motion meanings and what implications can be drawn regarding acquisition of Russian as a second language by English-speaking learners based on the previously reported typological evidence.

Chapter 3 offers a comprehensive analysis of the linguistic structures involved in motion descriptions in Russian and English. First, I describe the surface structures and
conceptual core schemas involved in the expression of motion meanings in English. I then proceed with an in-depth review of the specialized Slavic literature which details various aspects of the motion domain in Russian. The discussion extends beyond general typological categories to the unique characteristics of Russian grammar and motion structures. This chapter bridges the insights offered by the typological work and by the detailed and specialized Slavic literature.

The methodology adopted for an empirical examination of RL2 acquisition of motion talk undertaken in this dissertation is discussed in Chapter 4. Here I provide a definition for *contrastive learner corpus analysis* and discuss its merits for my investigation. The chapter also offers the specifics of the study’s design, participant profiles, elicitation procedures, and data processing (corpus compilation and annotation).

Chapter 5 outlines the differences in the expression of motion between monolingual Russian and monolingual English speakers in the context of the elicitation tasks. Chapter 6 characterizes the specifics of RL2 learners’ motion talk as a system and explains the sources of their difficulties by drawing on the analysis of the L1 Russian and English comparative data. It also compares the more experienced Russian L2 learners with their less experienced counterparts. Chapter 5 additionally outlines the difficulties two learner groups experiences in their descriptions of motion scenes and explain the sources of learner errors by drawing on the analysis of L1 data.

Finally, chapter 7 ties together the findings presented in Chapters 5 and 6 into a comprehensive summary. It also considers the pedagogical implications of the study. Specifically, it draws on the analyses presented in Chapter 6 to offer empirically informed suggestions for presenting the topic of motion talk in L2 classrooms for highly
proficient students with higher and lower levels of experience in using Russian motion talk in unrehearsed communicative situations. The importance of a unified presentation of motion talk in L2 Russian is underscored in contrast to the traditional disjointed treatment of prefixes, verbs, and prepositional phrases and separate lexico-grammatical topics. A corpus-based teaching approach is advocated for teaching and learning RL2 motion talk in narrative and other communicative contexts. The chapter concludes by outlining the directions for future empirical studies to inform the methodology for teaching of RL2 motion talk and creating of effective instructional materials on the topic.
Chapter 2

Cross-typological research on motion talk

2.1. Introduction

Interest in the expression of motion events has gained prominence in the areas of cross-linguistic, cross-typological, and acquisitional research and is currently being closely investigated by theoretical, cognitive, and applied linguists in the US and abroad. Perception of physical characteristics of motion events is an integral component of our daily functioning, and linguistic encoding of motion meanings is an important and necessary semantic domain in all world languages. At the same time, recent cross-linguistic studies of language use have attested that specific surface structures used in different languages exhibit distinctive lexicalization patterns in encoding nuances of motion events. Because the semantic domain of motion is universally expressed on the one hand, but relies on diverging lexicalization patterns and grammatical constructions, on the other, motion talk presents an interesting case for analysis: it has been used to study the interrelationship between the preferred linguistic patterns and the meanings that emerge in the process of speaking – in children learning L1, adult monolingual speakers, and also learners of languages beyond the first, the primary focus of the present study.

In this chapter I will provide a general outline of research on the expression of motion talk across various languages. This review is not intended to be exhaustive; rather, the goal of the chapter is to delineate the current landscape of research in this area and to situate my study among the related endeavors. The following chapter, i.e. Chapter 3, is devoted to a more detailed and comprehensive discussion of the linguistic structures.
involved in encoding of motion in Russian and English, the languages of primary interest for this dissertation.

I begin the discussion by briefly addressing the controversy between universal and neo-Whorfian views on encoding of motion events by speakers of various languages. I proceed by outlining a prominent typological approach to the study of motion expressions which was put forward by Leonard Talmy. In the field of cross-typological research Talmy’s work has attracted attention for its description of lexicalization patterns and conceptual elements involved in encoding of motion meanings across languages. I briefly describe the essence of the typological variation proposed by Talmy, while paying particular attention to how English and Russian fit into the system. The chapter is intended to highlight the fact that in spite of its usefulness, the typology cannot (as it was not intended to) capture all the nuances of intra-linguistic typological differences between languages, including English and Russian. The same idea underlies the review of cross-typological literature on acquisition of motion talk by L2 learners.

2.2. Universals and linguistic relativity in motion research

Linguistic studies investigating spatial semantics and event structure are often based on the assumption that the basic components of human perception and cognition related to the conceptualization of motion and spatial relations are shared by all humans, in the sense that we all have the same physical characteristics which allow us to process such events. Thus, DeLancey (2003), Landau & Jackendoff (1993); Langacker (1987), Pederson (1995), Pederson et al. (1998) turn to human physiology, i.e. draw on such evidence as mammalian sense organs, cerebral cortex, etc., to claim that the basic spatial
relations recognized and talked about by humans are universally “built” into the human perceptual system and are, therefore, independent of human language and culture. It is argued that as far as linguistics is concerned, spatial relationships should be taken as primitive elements (perception of an object and its motion in relationship to other components in the perceptual field) which are universally codable in all languages:

[I]t hardly seems appropriate or feasible to consider three-dimensional space as a concept definable relative to some other, more fundamental conception. It would appear more promising to regard the conception of space … as a basic field of representation grounded in genetically determined physical properties of the human organism and constituting an intrinsic part of our inborn cognitive apparatus. (Langacker, 1987, cited in DeLancey, 2003, p.59)

Many typological approaches devoted to the investigation of relationship between languages and conceptualizations have similarly claimed that conceptual structures are universal (i.e. Comrie, 1981). However, numerous recent studies have established that languages vary greatly in terms of the linguistic means that they employ to express spatial meanings and that there is no universal formula in terms of syntax or lexicon for describing motion events. A number of different typologies have been put forward to capture the essence of the cross-linguistic variety for encoding spatial relations across a variety of languages (e.g. Aske, 1989; Berman & Slobin, 1994; Gumperz & Levinson, 1996; Hickmann & Robert, 2006; Shay & Seibert, 2003; Talmy, 1985, 2000a, 2000b). There are several conclusions that emerge from this line of research, as will become evident throughout this chapter. Firstly, recent studies reveal an impressive linguistic variability in the encoding of motion events, description of spatial relations, and locations. Secondly, investigations of the perception and expression of motion events offer evidence for an undeniable link between surface structures in a language and the characteristics of motion events habitually attended to by the speakers of a particular
Studies that include a cognitive dimension in motion talk research are motivated by the linguistic relativity hypothesis which gained the widest audience through the work of Edward Sapir (1921) and his student, Benjamin Whorf (1956) and subsequently was developed by a number of other researchers (e.g. Bloom, 1981; Boroditsky, 2001; Gentner & Imai, 1997; Levinson, 1994, 1996; Lucy, 1992; Slobin, 1996, 2000; also recent volumes by Gumperz & Levinson, 1996; Gentner & Goldin-Meadow, 2003; Niemeier & Dirven, 2000; Pütz & Verspoor, 2000). In this approach language is viewed as the means through which the concepts of time and space are mastered and expressed. In the area of spatial relations, for example, it has been noted that English distinguishes between putting things into containers and onto surfaces, but that Korean differentiates between tight fit nehta and loose fit or attachment kkita (Choi, 1999; Choi & Bowerman, 1991). While most languages rely on relative spatial terms to describe the relative location of objects (such as left or right, front or back), in Tzeltal, a Mayan language, such equivalents are not available (Levinson, 1996). Instead, Tzeltal speakers employ an absolute system (spatial locations that are south are expressed as uphill or those that are north are downhill). Studies involving non-linguistic tasks were conducted to investigate whether containment distinction in English and Korean and differences in reference descriptions have cognitive consequences; these studies offer affirmative evidence (McDonough et al., 2000; Levinson, 1996).

Cross-linguistic expression of motion talk as grounded in human cognition has been extensively researched by Dan Slobin (i.e. 1996, 1997, 2000, 2003a, 2003b, 2006) who proposes a “thinking for speaking” approach to the study of the relationship between
language and mind which studies language as grounded in human activity (hence, thinking as speaking as opposed to thought and language). In this view, linguistic differences and rules play a role in language production as they force speakers to fit thoughts into available linguistic frames during the process of speaking. In Vygotsky’s (1986) terms, speaking partitions thinking into specific categories and thus converts what is originally synthetic into something analytic. Speakers of different languages have to pay attention to different aspects of the world, or, in the case of motion talk, to different aspects of motion events:

We encounter the contents of the mind in a special way when they are being accessed for use. That is, the activity of thinking takes on a particular quality when it is employed in the activity of speaking. In the evanescent time frame of constructing utterances in discourse one fits one’s thoughts into available linguistic frames. “Thinking for speaking” involves picking those characteristics of objects and events that (a) fit some conceptualization of the event, and (b) are readily encodable in the language. (Slobin, 1996, p. 76)

Slobin and other researchers (e.g. volumes by Berman & Slobin, 1994; Genter & Goldin-Meadow, 2003; Hickmann & Robert, 2006; Niemeir & Dirven, 2000; Strömqvist & Verhoeven, 2003; Verhoeven & Strömqvist, 2001; see also Naigles et al, 1998; Özçalişkan & Slobin, 1999; Slobin, 1996, 1997; Stam, 2006) have conducted experiments with speakers of more than 70 languages with linguistic and non-linguistic tasks. The body of the collected data suggests that variability in lexicalization patterns for encoding motion has consequences for how speakers of these languages describe motion meanings at the time of speaking (a weaker Neo-Whorfian take on linguistic relativity)\(^3\).

\(^3\) In the Sapir-Whorf version of the hypothesis, thought is believed to be completely determined by language habitually. Slobin’s (1996, 2003) “thinking for speaking” approach is “weaker” in that it argues that language shapes thought during the activity of speaking when we have to make choices and express our ideas by attending to the range of grammatical and lexical choices available in our language. McNeill (2005) also proposes such terms as “static” and “dynamic” – in the Sapir-Whorf hypothesis the deterministic effects of language on thought are viewed as stable, independent of context. McNeill’s (ibid.) interpretation of the nature of linguistic relativity is influenced by the work of Vygotsky (1986). Thus,
These studies point to effects of language on categorization, attention, mental imagery, memory, learning, and evaluation.

Spatial talk research has direct relevance for the topic of this dissertation, i.e. the acquisition of motion talk in L2. In fact, if there is an established structural variability in encoding motion meanings across language on the one hand, and direct cognitive consequences for speaking about motion in a certain way on the other hand, it is logical to assume that there will also be acquisitional consequences for L2 learners when they talk about motion in their different languages. To predict or evaluate the weight of such consequences, it is necessary to understand how language systems compare with each other at different levels of linguistic analysis, i.e. syntax, lexicon, semantics, discourse, etc. As Slobin (2003b) argues, one cannot make claims about the acquisition or use of a grammatical form without situating it typologically, in a network of interactive psycholinguistic factors. To situate my analysis of motion research I will rely on the well known typology of motion talk originally developed by Leonard Talmy (1985; 2000a; 2000b) and recently refined by other researchers (e.g. Slobin, 2003b, 2005a, 2005b, 2006; Hickmann & Robert, 2006; Strömqvist & Verhoeven, 2003; Verhoeven & Strömqvist, 2001). Among typological studies investigating motion meanings, research by Talmy (ibid.) enjoys prominence for its typological description of lexicalization patterns and conceptual elements involved in the encoding of motion meanings across languages. The typology and its relevance to the field of language acquisition will be considered in the next sections.

McNeill (ibid.) explains the effects of thinking-for-speaking as part of the dynamic interrelationship between thought and speech during the activity of speaking in which thought comes into existence through words.
2.3. Talmy’s typology of motion talk

2.3.1. General outline

Talmy’s typological work (1985; 2000a; 2000b) has had a profound influence on research in the area of the lexicalization patterns characteristic of motion talk across languages. His typological theory primarily addresses the systematic patterns among languages in their expression of motion events through surface structures. He suggests that there are several framing events or conceptual core schemas which can be expressed by various linguistic means in motion talk. This association between meaning and surface forms is considered in Talmy’s research primarily through the lens of lexicalization patterns.

The lexicalization patterns which form the basis of Talmy’s (ibid.) cross-typological research are involved in encoding *path* and *manner* of motion. In Talmy’s terms, a motion event is understood as a situation containing either movement or the maintenance of stationary location. The basic motion is described as consisting of an object, i.e. *figure* which is moving or located with respect to another object, i.e. *ground*. Ground can provide information about the initial location, i.e. whether the path originated (*source*), final location (*goal*), location passed along path (*milestone*), etc. (see Slobin, 2005a). The course which a figure follows or the site that it occupies is referred to as the *path*. Talmy further argues that the encoding of path is not optional; whereas it is not characteristic for all languages to express the *manner* in which motion might occur (e.g. in English one can *run, march, skip, tiptoe, waltz, hightail, storm*, etc. *out of the room*).

Based on these observations, Talmy (ibid.) divides the world’s languages into two general typological groups: satellite-framed and verb-framed languages. In verb-framed
(V-framed) languages, the main motion verb in the clause expresses the path and, if manner is expressed at all, it usually is through lexical means, e.g.

<table>
<thead>
<tr>
<th>Le chat</th>
<th>est sorti</th>
<th>de la pièce</th>
<th>en courant.</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘The cat exited the room by running.’</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

MOTION SOURCE MANNER

The languages that are included in the V-framed group are Romance, Semitic, and Turkic languages, as well as Basque, Japanese, Korean, and ASL.

In satellite-framed (S-framed) languages, on the other hand, path is usually not expressed by the motion verb itself but rather by an element, or satellite associated with the verb (a particle, a prefix, etc. depending on the language), e.g.

| Mister Bean drove out of the garage. |
|------------------|-----------|-------------|-------------|
| MOTION PATH GROUND MANNER |

The S-framed group includes Slavic, Germanic, Finno-Ugric and Sino-Tibetan languages.

Dan Slobin, whose experimental research has been instrumental in applications and testing of Talmy’s typology, has recently proposed a revision of the typology: he has put forward a third language type for expressing manner and path which he refers to as ‘equipollently-framed’ (E-framed); these are languages in which path and manner receive equal weight (e.g. Slobin, 2003b, 2006). Languages that Slobin includes in this group are Niger-Congo, Hmong-Mien, Sino-Tibetan, Tai-Kadai, Mon-Khmer, Austronesian, Algonquian, Athabaskan, Hokan, Klamath-Takelman, and Jaminjungan. Verbs in E-framed languages can be serial, bipartite (i.e consisting of a complex of two verbs with one expressing path and the other manner), or generic (i.e. with co-verbs that encode manner and path in the same fashion). These languages are equipollent in the sense that both manner and path are expressed by the elements that appear to be equal in force,
significance, and salience (Slobin, 2006).

Talmy (ibid.) has inspired a fruitful branch of research investigating motion structures and meanings as interrelated with the issues of language use, human cognition, and language acquisition (e.g. volumes by Berman & Slobin, 1994; Hickmann & Robert, 2006; Strömqvist & Verhoeven, 2003; Verhoeven & Strömqvist, 2001). These investigations explore the way humans express and conceptualize spatial meanings and the degree to which expression/conceptualization of these meanings is influenced by the language that they speak (by the syntax of lexicalization patterns in motion expressions, morphology, discourse patterns, etc.).

One of the foundational arguments that underlies this line of research claims that while all groups in the typology consistently encode path, they differ in their attention to manner of motion. Berman & Slobin (1994) offer a linguistic explanation for this fact. In their view, S-framed (and as of Slobin, 2003b, E-framed) languages allow for a more economical expression of motion manner, since in these languages manner nuances are accumulated on the main verb in the predicate; in addition, syntax permits path satellites and prepositional phrases to be adjacent to or even added onto the same verb. In contrast, V-framed languages are less economical as they encode path and manner in separate expressions, i.e. manner is expressed in a subordinate construction (en courant in the example above) in addition to the main path verb which adds a processing load; hence, these subordinate constructions are frequently omitted in speech.

Slobin and his colleagues have demonstrated that S-framed and E-framed languages use motion verbs of manner frequently and habitually, and that these languages are also characterized by wider lexicons for encoding motion events. On the other hand,
manner lexicons in V-framed languages are smaller and those manner verbs that are present in the language occur in actual production with reduced frequency. For example, Slobin (2003b) reports that in descriptions of a particular motion scene (owl’s emergence from the tree) by speakers of various languages, he found a dramatic difference in the attention to manner paid by narrators during their verbal accounts of the scene. Figure 1 represents the percentage of narrators who chose manner verbs to depict the motion event (Slobin, 2003b, p.226):

Figure 1. Percentage of narrators using a manner-of motion verb for the owl’s emergence

While in V-framed languages narrators paid no attention to manner⁴ (Spanish, French, Turkish, Italian, and Hebrew), in S-framed (Dutch, German, English, and Russian) and E-framed (Mandarin, Thai, and Tsou) languages speakers displayed varying degrees of attention to manner-of-motion ranging from an average 23% for Germanic languages, to 34% for E-languages, to 100% for Russian. Salience of manner in V-framed and E-

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⁴ While manner was not expressed verbally, it is possible that it was marked gesturally by speakers of V-framed languages. David McNeill (2000, 2002, 2005), who has extensively studied the interrelationship between speaking and gesturing, explains that a manner fog may occur in descriptions of motions produced by speakers of V-framed languages like Spanish: they can mark manner through gesture (which would co-occur with the path verbs and ground phrases) even when the verbal account of manner is absent in speech.
framed languages has been reported by Slobin (cf. 2003b, 2006) to result in numerous
differences in language use in terms of preferred rhetorical and discursive styles in
motion narratives, ease of lexical access to manner-of-motion lexicon, imagery and
understanding of manner verbs, metaphorical extensions of manner verbs and acquisition
of motion structures.

Slobin (2003a, 2003b, 2005a, 2005b, 2006) has also collected cross-linguistic
evidence that languages differ with regard to the canonical segmentation of paths as well
as the ease of building complex path constructions. Slobin (2005b) exemplifies his
argument drawing on the descriptions of a particular narrative scene provided by speakers
of S- and V-framed languages. In this segment of a story, “a little boy gets entangled in
the antlers of a deer, who carries him to the edge of a cliff and dumps him off over a cliff
down into a pond”, p. 313). As Table 1 shows, there is a marked quantitative difference
in how the speakers of the two languages describe path: speakers of S-framed languages
tend to mention more path segments than the speakers of the other group; moreover, a
greater proportion of those speaking S-framed languages mention 2 segments or more.

Table 1. Path segmentation in the scene of falling off the cliff

<table>
<thead>
<tr>
<th>SATELLITE-FRAMED LANGUAGES</th>
<th>VERB-FRAMED LANGUAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Languages</strong></td>
<td><strong>Average number of event segments</strong></td>
</tr>
<tr>
<td>Germanic (Dutch, English, German, Icelandic, Swedish)</td>
<td>3.0</td>
</tr>
<tr>
<td>Slavic (Polish, Russian, Serbo-Croatian)</td>
<td>2.8</td>
</tr>
</tbody>
</table>
Slobin (2005b) reports finding the same difference in pattern of path segmentation / granularity in his cross-typological comparisons of texts drawn from creative fiction, newspapers, and recordings of spontaneous conversations.

2.3.2. The place of English and Russian within the typology

In reference to the languages that are the focus of this dissertation, Russian and English are considered to be S-framed within Talmy’s typology. In fact, both languages have rich lexicons for expressing manner of motion. Numerous studies have attested to the variety of the manner verbs repertoire in English (e.g. Berman & Slobin, 1994; Eguchi, 2002; Levin & Hovav, 1991; Miller, 1972; Özçalışkan & Slobin, 1999; Slobin, 1996, 2000, 2003a, 2003b, 2005a, 2005b, 2006; Strömqvist & Verhoeven, 2003; Wienold, 1995). While there are only few empirical studies describing Russian motion talk, Slobin (2005a, 2005b, 2006) reports that in his comparative studies of motion expressions, manner-of-motion appears to be salient in Russian just as it is in English. He draws on the experimental work by Dukhovny & Kaushanskaya (1998, cited in Slobin, 2003a) to claim that the two languages are comparably saturated on the manner dimension, with Russian speakers showing even slightly higher propensity for encoding manner-of-motion nuances. In his summary of the cross-typological narrative research, Slobin (2003a) reports that Russian-speaking participants at all ages used manner verbs more frequently that speakers of other languages, and that adult Russian speakers’ narratives were characterized by the highest degree of lexical diversity among all languages under analysis. These figures are reported below in Table 2 (Slobin, 2003a, p.164):
Table 2. Use of manner verbs across all languages and age groups

<table>
<thead>
<tr>
<th>Language</th>
<th>Percentage of manner verb use</th>
<th>Mean number of manner verbs per narrators (Adults)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(All ages combined)</td>
<td></td>
</tr>
<tr>
<td><strong>V-languages</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spanish</td>
<td>20%</td>
<td>3</td>
</tr>
<tr>
<td>Turkish</td>
<td>25%</td>
<td>4</td>
</tr>
<tr>
<td>Hebrew</td>
<td>30%</td>
<td>4</td>
</tr>
<tr>
<td><strong>S-languages</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>45%</td>
<td>7</td>
</tr>
<tr>
<td>Mandarin</td>
<td>62%</td>
<td>11</td>
</tr>
<tr>
<td>Russian</td>
<td>69%</td>
<td>16</td>
</tr>
</tbody>
</table>

Slobin (2003b, 2005a) has also documented similarities between English and Russian in the encoding of path information. Note that Table 1 in the previous section describes Germanic and Slavic languages as having comparable path segmentation patterns: speakers from both language families used approximately the same number of event segments (3 for the former and 2.8 for the latter language group) with high consistency (86% of narrators and 76%, respectively). There are nevertheless important differences that need to be highlighted in regard to the encoding of path in Russian and English.

Both languages rely on satellites to mark path of motion, but these satellites are different structurally: in English prepositions and verbal particles serve this role as ‘free agents’, but in Russian prefixes are appended to motion verbs: *vbegat* ‘in-run’, *vyezhhat* ‘out-drive’, *uletat* ‘away-fly’. Therefore, Russian is rich in manner-of-motion verbs as an S-framed language but at the same time encodes path on verbs much like a V-framed language. This lexicalization pattern influences what Slobin (Slobin, 1996; 2003b, 2005b) describes as *the rhetorical style* in motion narratives. English speakers habitually
“stack” prepositional phrases explicating path and ground information, i.e. one manner verb can be used with a number of prepositional phrases elaborating different points along the trajectory of movement.

For example, Slobin (1996, p. 197) provides the following illustration for this feature of the English motion talk:

“He still wandered on, out of the little high valley, over its edge, and down the slopes beyond…(Tolkien, 1987).

McNeill (2005) has similarly found that a complex curvilinear path in S-framed languages is typically rendered by a series of descriptions of straight segments or paths following a verb. He cites a recorded example of a motion narrative which contains one verb with six satellites (p.196):

“and it goes down but it rolls him out down the rainspout out into the sidewalk into a bowling alley.”

V-framed languages are different in that a single verb can holistically describe a complex path, i.e. through verbs like “descend”. English has a number of borrowed verbs of this type (ascend, descend, enter, exit), but their number is rather limited.

In reference to Russian, although it is an S-framed language, the tendency to stack motion satellites was not described as characteristic of the Russian speakers’ motion descriptions in Slobin’s (2003b) study, as in Russian only one path prefix at a time is allowed per verb, and, therefore, speakers of Russian use separate verbs for each of the path segments. In later discussions we will see that satellites in Russian are in fact not limited to prefixes as Slobin and Talmy propose in their work, but rather prefixes and

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5 This description refers to one of the episodes from the Tweety Bird cartoon in which Sylvester the cat tries to climb up the inside of the drainpipe next to Tweety’s window. When Tweety drops a bowling ball down the drainpipe, Sylvester swallows it and rolls down the drainpipe.
prepositions form a coherent and mutually complementary semantic system in which both prefixes and preposition contribute to packaging information about path and ground of motion.

In conclusion, on the basis of research within Talmy’s typology Russian and English are often described as similar prototypical S-framed languages in terms of manner-of-motion lexicon and path segmentation. Nevertheless, there are also obvious differences between the two languages which have not been addressed in a consistent manner in the current literature.

2.3.3. Cross-typological research today

While the differences between the typological groups and their instantiations in language use are well articulated and well documented, Talmy’s typology is not fully comprehensive. I have already mentioned the ambiguous description of Russian within the typology and the limitations of the binary opposition described by Slobin, 2003b (also see Gao, 2001; Zlatev & Yanglang, 2003) and his revision in favor of the trichotomous system. Other researchers have documented numerous instances of intra-linguistic variation as well. Peyraube (2006) points out that an Athapaskan language, Dene, shows a wide range of conflation patterns and falls outside of the typological boundaries proposed by Talmy (1985, 2000a, 2000b). Ibarretxe-Antuñano (2003, cited in Peyraube, 2006) has argued that Basque is closer to S-framed languages than to the V-framed group as suggested by Talmy (1985).

Several studies offered evidence that the current account of the manner vs. path opposition needs to be refined for some V-framed languages. For example, Aske (1989)
and Naigles et al. (1998) have pointed out that while many motion verbs in Spanish only explicate path, in some contexts Spanish verbs can also express manner components, e.g. *correr* ‘run’, *flotar* ‘float’, *caminar* ‘walk’, *rodar* ‘roll’, and *deslizar* ‘slide’. These studies highlight the fact that these manner verbs can appear in descriptions of motion events similar to the English patterns when the motion events take place at or in a single location. In these contexts manner verbs are used with locative path phrases such as *en la casa* ‘in the house’ or *por el túnel* ‘through the tunnel’. The typological dichotomy (i.e. reliance on path verbs by V-framed languages like Spanish) applies to events which have definite endpoints or sources as described by telic path phrases such as *a la casa* ‘to the house’.

Similarly, Inagaki (2002) describes the potential of Japanese (also a V-framed language) to encode manner but only in limited contexts. In Japanese, if a sentence contains goal-oriented prepositional phrases, manner verbs cannot be used as sole predicates. When the goal of motion is expressed, manner is encoded with the help of gerund, the *te*- particle attached to a verb in Japanese (Inagaki, 2002; Jorden, 1987):

\[ \text{John-wa arui-te gakkoo-ni itta.} \]
\[ \text{John walk-GER school-at went.} \]
\[ \text{‘John went to school walking.’ (Inagaki, 2002, p.6)} \]

Likewise, Kopecka (2006) reports the intra-linguistic typological complexity of French. She has noticed that French verbal prefixes reflect remnants of a previous S-framed system and can mark different types of information about voluntary motion, but also manner of motion, causativity, and entity properties (e.g. *accourir* ‘to run quickly to’, *survoler* ‘to fly over’, *s’encouler* ‘to flow out’ or *écrémer* ‘to take cream off’).

To resolve some of the seemingly typological contradictions found in V-framed
languages with the potential for manner-of-motion expression, Slobin & Hoiting (1994) have refined the typological opposition that concerns the manner-conflating group of verbs found in V-framed languages (Spanish, but also some Sign languages, French, Turkish and Japanese). Slobin & Hoiting (ibid.) suggest that while path verbs are preferable in these languages, in the contexts in which a figure actually traverses a certain boundary (i.e. when the verb “describes only the path itself or the arrival at a goal, but without predicing a specific locative end state for proximity to a ground” (p. 9)), this preference becomes a requirement and a path verb *must* be used to describe motion events.

Small-scale morphosyntactic variation can have a significant impact on the narrative structure of motion descriptions, including ground framing. Thus, Ragnasdóttir and Strömqvist’s (2003) comparison of Icelandic and Swedish (which are closely related S-framed languages) reveal that Icelandic narrators provide more ground nuances than speakers of Swedish. This is apparently the case because to express goal in Icelandic not only are prepositions used but the accusative case ending is also added onto a noun; in contrast, in Swedish direction is marked with independent satellites, i.e. noun phrases are not necessary. Hence, there are fewer references to ground details in Swedish (cf. Slobin, 2003b). Slobin (2003b) also provides an example from West-Greenlandic which is poor in ground descriptions. It has been found that noun phrases marking ground information are not necessary because West-Greenlandic motion verbs are richly inflected and contain nuance about participants, direction, location, and temporality of motion (Engberg-Pederson & Trondhjem, 2003). Similarly, English, Slavic and Finnish all fall under the same category of S-framed languages, but they differ significantly in terms of
the patterns utilized for encoding path - they rely on particles, prefixes, and agglutinative morphemes, respectively (Jarvis & Odlin, 2000; Slobin, 2003b).

Cultural factors may need to be accounted for as well. Bavin (2003) describes Warlpiri, an Australian Aboriginal language, as being closer to the S-framed group in terms of the frequency of the locative elements. In Warlpiri locative elements are apparently abundant in motion narratives and include information about path, direction, source, goal, location, or a combination of the above. Bavin (ibid.) argues that this frequency of locative elements is influenced not by purely morphosyntactic properties of Warlpiri but primarily by the cultural beliefs: members of that speech community are respected for their display of knowledge and for how much they can remember, hence meticulous framing of motion events by the narrators.

The examples of intra-linguistic variation are numerous. Each of the human languages provides a powerful and diverse pool of resources for its speakers to encode spatial relations and motion experiences – basic as well as refined. Idiosyncratic typological variations have been recorded in terms of lexis, rhetorical style, narrative construction, morphosyntax, cultural detailing, functional properties of entities and figures, reference systems, and modality (in addition to the references above see also Brown, 2003; McNeill, 2005; Özyürek & Kita, 1999; Shay & Seibert, 2003; Slobin, 2003b).

However, the typology is by definition a generalization and was intended to describe group characteristics of motion events. While it is not fine-grained enough to capture the variety of nuances expressed in each individual language, cross-linguistic research reports robust evidence in support of the obvious prototypical dichotomy in
expression and perception of motion characteristics between V-framed and S-framed languages (cf. Hickman, 2006; Slobin, 2006; Talmy, 2006; also see volumes by Strömqvist & Verhoeven, 2003; Verhoeven & Strömqvist, 2001). The typology has proven to be a useful and revealing heuristic tool for exploring expressions and conceptualization of motion meanings cross-linguistically. Even more importantly for this dissertation, it has also become a fruitful platform for investigating questions of language acquisition: the cross-typological variation raises a number of questions related to language development including how this variation is learned by children speaking different languages. For SLA researches the typological discussion naturally leads to the questions of whether and how intra- and inter-group characteristics affect cognitive processes related to language learning, and to L2 acquisition processes in particular.

2.4. Talmy’s typology applied to acquisition research

Applications of Talmy’s typology go far beyond theoretical linguistics and have extended to research in many areas of language studies, including first/second language acquisition. In fact, the typology has constituted the base relative to which acquisition discrepancies in motion events are most advantageously investigated (Achard & Niemeier, 2004). Slobin’s (1996) exploratory “thinking for speaking” framework grounded in the Talmy’s dichotomy (or perhaps, trichotomy with E-languages included) has been utilized in a wide variety of acquisitional studies and has revealed important insights about the role of the typological motion talk variation for language learning.

Slobin’s (1996) work rests on the belief that speakers’ first language “trains” them to pay attention to different aspects of motion events by forcing them to utilize different
linguistic means for motion descriptions. Similarly, Bowerman (1985, cited in Slobin, 2006) has hypothesized that

“children are prepared from the beginning to accept linguistic guidance as to which distinction – from among the set of distinctions that are salient to them – they should rely on in organizing particular domains of meaning.” (p.71)

Cross-linguistic differences in acquisition of motion talk by children are well-documented. Many studies have focused on L1 acquisition and explored children’s lexicalization of semantic elements of motion events and their expression in discourse. Children produce devices that are most typical in their language from the emergence of language onward (Allen at al., 2003; Berman & Slobin, 1994; Choi & Bowerman, 1991; Johnston & Slobin, 1979; Hickmann, 2006; Hespos & Spelke, 2004; Levelt, 1989; McDonough et al., 2003; Slobin, 2003a, 2006; Oh, 2003). These studies have investigated children ranging from 14 months to 12 years of age and have found sensitivity to language-specific patterns regardless of age. In reference to L1 acquisition the evidence overwhelmingly supports the conjecture that “children are guided in constructing spatial semantic categories by the language that they are exposed to” (Choi & Bowerman, 2001, p.110).

Gumperz & Levinson (1996) identify several ways in which the first language can have a deterministic bearing on thought and on-line speech production. Thus, they propose that the specifics of grammatical or lexical categories of a language may force a particular way of thinking on a speaker at the time when the latter is constructing an utterance. Gumperz & Levinson (ibid.) also hypothesize that this type of thinking for speaking can require speakers of different languages to notice special properties of the world depending on the needs of their language to encode particular target characteristics
linguistically. They suggest that the after-effects of thinking-for-speaking can surface as memory effects: it may be easier to remember certain aspects of motion events which are attended to prior to the verbalization process.

In fact, it has been found that even pre-verbally children develop conceptualizations of space that may be influenced by the language in which they are immersed, even though they are unable to produce spatial language themselves yet (Hespos & Spelke, 2004; Needham & Baillargeon, 1993; Pruden et al., 2004; Pulverman, 2005; Pulverman et al., 2003). These studies report that the basic ability to detect changes in manner and path is present pre-verbally, with a more sophisticated ability to conceptualize manner and path as separable, independent elements of events developing between 7 and 17 months of age. Furthermore, how much attention novice word learners (post 14- to 17-months) pay to manner appears to have differential consequences for lexical acquisition, depending on the frequency with which manner is expressed in one's native language.

Slobin’s (2003a, 2005a, 2005b, 2006) work with children and adults provides evidence suggesting that “there are major differences in mental imagery between speakers of satellite- and verb-framed languages” (2006, p.73). He conducted an experiment in which speakers of English and Spanish were given parallel passages to read (from Spanish novels and their English translations) and later asked the two reader groups to report mental imagery for the narrated events. In reports given by English speakers he found manner-rich descriptions of the protagonists’ movements, while Spanish participants mostly reported little or no imagery of the manner of the protagonist’s movement, even though they could recall physical surroundings of the
scene. As for the bilinguals who were tested in both languages, Slobin (2003a, 2005a, 2005b, 2006) found that their preferences changed based on the language in which they read/recalled passages: after reading in English bilinguals’ reports consistently contained more mental imagery for manner of motion, whereas their reports following reading in Spanish had less descriptions of manner and more accounts of physical surroundings. These data provide strong support for the thinking-for-speaking effects – depending on the language in which the participants were performing the task, the lexicon and grammar of the language shaped bilinguals’ speech (and cognition in general, i.e. memory and attention).

The mental imagery study by Slobin (ibid.) is an easy target for criticism because the conceptualizations were evoked by the verbal experiences of encountering the motion events through narratives. Several recent studies however report robust effects of habitual attention to manner vs. path on memory and categorization on non-verbal tasks. Oh (2003) showed his English- and Korean-speaking participants a series of videoclips which included diverse motion events rich in manner nuances. When subjects were given surprise questions about the details of the videoclips, their responses revealed that English monolinguals were significantly more precise in recalling the details of the manner of motion, including sensorimotor nuances specific to the motion manner.

Experiments by Kersten and his colleagues (Kersten et al., 2003 reported in Slobin, 2006) suggest that habitual attention to manner can surface in non-linguistic learning tasks. In a categorization task English- and Spanish-speaking participants were shown cartoons in which alien creatures moved along paths and in a fashion which are difficult to name in either language. When the participants had to categorize the species
into four groups on the basis of the path and manner of motion, Kersten et al. found that while both participant groups were similar in how long it took them to distinguish the creatures based on the path of motion, English monolinguals were significantly faster at learning to categorize the creatures on the basis of manner. The balanced bilinguals who participated in the study performed similarly to the monolingual Spanish and English groups depending on the language in which they were trained for the experiment.

The findings of the experiments reviewed by Slobin (2003, 2005a, 2005b, 2006), Oh (2003), and Kersten et al. (2003) show that language learning is a developmental process in which language properties and thinking are in a dynamic dialectic relationship. As Vygotsky (1986) proposed, thought and language, are the key to human consciousness and play a role not only in interpsychological communicatively-oriented functioning but also in intrapsychological self-mediating cognitive processing (inner speech). Therefore, the language in which the experiment is conducted can guide participants’ cognitive processes – verbal and non-verbal (i.e. comprehension as it is the case of the study by Kersten et al. (2003)).

In reference to adult SLA, Slobin (1996) has suggested that habitual pattern of “thinking for speaking” developed through L1 exposure has direct consequences for L2 acquisition: L1 “training carried out in childhood is exceptionally resistant to restructuring in adult second language acquisition” (p. 89). Following this line of thinking, it is logical to assume that diverging lexicalization patterns in expression of motion events may well inhibit acquisition of typologically-different L2, while same-group membership can be expected to facilitate L2 learning in the area of motion talk. While the majority of the studies investigating acquisition of motion talk have been
conducted with L1-learning children and adults, a few studies (including Slobin, 2005a and Kersten et al., 2003 reviewed above) have shed some light on the interrelationship between cross-typological differences and SLA.

Most of the studies focus on the effects of native language lexicalization patterns on acquisition of motion structures by learners of a typologically different language. The hypothesis tested in these studies is that cross-typological variation hampers L2 learning in the domain of motion talk; the reported evidence appears to confirm this conjecture. The study by Kersten et al. (2003) reviewed above offers evidence from non-linguistic tasks. A number of studies that rely on verbalization data report similar findings. Navarro & Nicoladis (2005) focused on acquisition of L2 Spanish (V-framed) by English-speaking adults (S-framed). The L2 participants had more than two years of university-level instruction and experience in Spanish-speaking countries and were compared to L1 speakers of Spanish on a narrative elicitation task (with video segments used as stimuli). Navarro & Nicoladis (ibid.) report that their participants started to approximate the native speaker group in favoring path verbs over manner verbs, even though they found some divergences from the L1 Spanish pattern in L2 speakers’ greater use of post-verbal phrases.

I am somewhat skeptical of the authors’ conclusion according to which “there are still some traces of English in these L2 Spanish narratives, [but] these speakers present a clear trend towards *a complete acquisition of the Spanish typology* [my italics] (p. 106)”. Considering that Navarro & Nicoladis (ibid.) are purely relying on the count of path vs. manner verbs in learner narratives, it would be impossible for their learners to use more manner verbs than they did because Spanish lexicon (poor in manner-of-motion
repertoire) simply does not allow for it. Even considering this, L2 Spanish speakers express fewer path verbs to narrate motion events than the L1 Spanish group (69% vs. 80%, respectively). Post-verbal path segmentation is the only area where acquisition difficulties due to the cross-typological differences could be attested, and Navarro & Nicoladis (ibid.) did in fact find such difficulties. Additional criticism of the study is that it failed to include a monolingual English group; therefore, it is difficult to assess any cross-linguistic influences in the speech of L2 Spanish participants without having an L1 English corpus as a benchmark.

Harley (1989) also describes an acquisitional study in which the pattern of path segmentation proved to cause acquisitional difficulties for learners transferring into a typologically different language. In this study, native speakers of English studying French in an environment of immersion exhibited a tendency to rely heavily on prepositional phrases to provide directional information in L2 writing even though direction in French (a V-framed language) is already incorporated into the motion verb, in contrast to English in which path is elaborated though stackable prepositional phrases.

Inagaki (2001, 2002) has investigated how acquisition of L2 path encoding varies depending on the typological characteristics of learners’ L1s. Specifically, Inagaki (2002) focused his attention on English and Japanese: he compared acquisitional profiles of English-speaking learners of Japanese and L1 Japanese-speaking learners of English. As previously discussed, in Japanese manner verbs can only appear with locative prepositional phrases, while English does not have this limitation. Inagaki (2002) conducted picture-matching and grammaticality judgment tasks and found that L1 speakers of English studying Japanese as an L2 had more difficulties performing on these
tasks than L1 Japanese students learning English. These findings appear to suggest that not only typological but also intra-linguistic differences are at play here: the former group had trouble switching to a “subset” of the manner-encoding system, while for the latter group transferring to a more permissive system resulted in better acquisitional outcomes. The “partial fit” between the two languages (i.e. use of manner verbs with locative phrases) facilitated acquisition of L2 English for Japanese-speaking learners. The “partial disconnect” in which the typological differences play out (path vs. manner with telic prepositional phrases) inhibited acquisition of motion structures for L2 Japanese-learning participants. A very important finding that emerges from the study is that for L2 learners of two typologically different languages the transfer into a new language system is not bidirectional and equally challenging or easy: the characteristics of individual L2 systems need to be considered closely before conclusions are drawn about acquisitional consequences of typological influences.

Yu (1996) conducted a multifaceted acquisitional investigation that provides further insights into the issue of acquiring a typologically different language; the study goes even further and also addresses the question of whether acquisition of motion talk is facilitated if L1 and L2 belong to the same typological group. Yu (ibid.) recruited advanced L1 Japanese- and L1 Chinese-speaking learners of English to explore these questions. While V-framed Japanese and S-framed English belong to two different groups within Talmy’s typology, Chinese and English are more similar in that they both consistently rely on manner verbs to encode manner of motion. Both learner groups performed three tasks (story retelling, picture description, and translation). The results

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6 While Chinese is considered to be an E-framed language in a revised typology, both groups utilize manner verbs. In reference to Chinese, some still argue that Chinese is in fact an S-framed language, i.e. Peyraube, 2006.
show that L2 learners can benefit from lexicalization similarities underlying L1 and L2 in acquisition of motion lexicon: the comparison of the two language groups (L1 Chinese and L1 Japanese) showed that the first group did significantly better than the second group on all three tasks. The results confirmed once again that divergences in lexicalization patterns underlying typologically different languages can impede or facilitate L2 acquisition of motion talk. The novel finding reported by Yu (1996) is that cross-linguistic typological similarities in expression of motion meanings can facilitate L2 learning of these structures, even when L1 and L2 are as different as English and Chinese beyond the patterns for expressing motion meanings. When it comes to encoding manner, Chinese is closer to English than it is to Japanese and other East Asian languages.

The evidence collected so far seems to indicate that the typology of motion structuring offered by Talmy can serve as a linguistically and cognitively real basis for investigating L2 acquisitional processes. On the tasks ranging from imagery reports and nonverbal categorization experiments to open-ended discursive tasks, cross-typological dis(similarities) seem to surface as significant factors that either hamper or benefit acquisition of L2 motion meanings.

All of the current studies have confirmed the robustness of cross-typological influences on acquisition of L2 motion talk. The pedagogical merits of addressing typological differences in L2 instruction seems to be obvious; however, more fine-grained research on individual languages is needed to develop comprehensive approaches to teaching and learning how to express motion in L2. Just as Talmy’s typology operates on a global level, the existing acquisitional studies based on the typology tend to focus on
the general categories of *path* and *manner*, while leaving out the questions of overall development of L2 interlanguage systems in which motion talk is ingrained. For example, in learning how to express motion in Russian (as discussed in Chapter 3), learners need to understand the lexicalization pattern for encoding manner and path, but also to have a good grasp of the aspectual system, the inflectional verbal system and noun declinations (for ground phrases). In depth descriptions of the semantic and morphosyntactic components involved in encoding motion events across languages should become part of the pedagogical studies based on the typological research.

Although on the global level, research evidence for the consequences of cross-typological influences on L2 learning does provide valuable insights, I am concerned by the pedagogical recommendations that some studies have put forward. For example, Navarro & Nicoladis (2005) suggest that formal pedagogical exposure to the L2 system of motion talk may not be necessary in L2 Spanish curriculum for L1 English speakers. They believe that because motion is a recurrent topic in human communication, L2 learners get sufficient input in the domain of motion structures and multiple opportunities to negotiate meaning that involves movement and its description. As a result, they argue, the L2 meanings related to motion become “transparent and comprehensible for the learners. This, in turn, enables them to notice and naturally acquire the syntactic mapping which conveys this meaning at the sentence level” (pp. 106-107). It is somewhat surprising that this conclusion is offered by Navarro & Nicoladis (ibid.) considering that their participants had immersion experience (i.e. ample input) and yet showed L1 patterning in path segmentation. Besides, the authors did not investigate other aspects of learner performance, i.e. false starts, pauses, hesitations, etc., which might provide a more
comprehensive acquisitional picture. In fact, Negueruela et al. (2004) studied the interrelationship between gesture and L2 motion talk proficiency in a similar population (i.e. L2 learners of Spanish with L1 English background), and report that even when their participants followed the L2-preferred pattern and did not use manner verbs to describe particular manner-rich motion scenes, they appeared hesitant in their lexical choices, paused, relied on idiosyncratic circumlocution, and marked manner through gestures in a fashion characteristic of English thinking-for-speaking patterns. Therefore, Navarro & Nicoladis’ (ibid.) conclusions regarding the ease of motion talk acquisition and rejection of pedagogical intervention seem too hasty.

Yu (1996), alternatively, argues for pointing out cross-typological similarities between learners’ L1 and L2 but shies away from suggesting a more intuitive – in my view – explicit focus on cross-linguistic divergences. In his view, only learners from typologically similar backgrounds would benefit from explicit focus on differences/similarities between motion structures in learners’ L1 and L2. Yu (ibid.) appears to be wary of explaining inter-linguistic divergences to learners from typologically-dissimilar languages because of the potential “overload”. Thus, he writes:

> when teaching is exclusively focused on NL [native language]- TL [target language] differences, learners may inevitably be led to the impression that their L1 is purely a hindrance in learning a foreign language (p. 214).

Yu (1996) fails to expand on his idea, and it is unclear what alternate routes he recommends for language instructors in approaching this pedagogical topic. As with the findings reported by Navarro & Nicoladis (ibid.), pedagogical conclusions drawn on the basis of a generalized typological study do not appear convincing.
2.5. Conclusion

The current stage of research on the semantic domain of motion talk is ambivalent. On the one hand, an impressive body of cross-linguistic studies confirms the robustness of typological differences and conceptual frames proposed by Talmy. At the same time, fine-grained intra-linguistic studies report that the typology fails to capture important factors in the expression of motion meanings in each individual language. The data on English and Russian available so far reveal both similarities that these S-framed languages share but also certain differences in encoding of path details where Russian (which adds path satellites onto a verb) seems to display a pattern that is characteristic of V-framed languages, namely, using verbs to express path information. It is clear that further studies are needed to provide a more in-depth analysis of this domain in both languages before any further conclusions can be made about similarities and differences between them.

The review of the literature in this chapter demonstrates that Talmy’s typology is a productive base for conducting L1 and L2 acquisitional studies in the area of motion meanings. In reference to acquisition of L2 motion talk, current evidence suggests that:

1) in acquisition of a native language, L1 habituates speakers to pay attention to different aspects of motion events by offering them different linguistic repertoires for talking about such events;

2) acquisition of L2 motion talk is hindered when L1 and L2 rely on dissimilar patterns for encoding motion; and

3) acquisition of L2 motion talk is facilitated when learners’ L1 and L2 are typologically similar (within the boundaries of Talmy’s typology).
Based on the findings of research carried out to date, as surveyed above, English-speaking learners of Russian should benefit from the typological similarities between the languages for expressing motion events. However, as I will demonstrate, the data from a corpus-based analysis of L2 Russian learners (L1 English) spoken and written performance, things are not so straightforward and indeed learners of Russian have considerable difficulty, even at advanced levels, mastering the motion verb system of this language. Before moving to an analysis of the data, however, I offer an in-depth analysis of the linguistic structures involved in motion descriptions in Russian and English. Accordingly, Chapter 3 contains a review of a specialized Slavic literature that addressed various aspects of motion domain in Russian beyond general typological categories; similarly, the chapter also outlines various aspects of motion talk in English.
Chapter 3

Motion Talk in Russian and English

3.1. Introduction

Before we can proceed with the analysis of motion talk by American learners of Russian, it is important to outline the specifics of how motion is expressed in their first language (English) and their second language (Russian), so that informed conclusions could be made about the possible effects of crosslinguistic influence (either positive or negative). As discussed in Chapter 2, Russian and English are described in the North American typological literature as having similar lexicalization patterns for encoding motion events. While to my knowledge no studies have reported on acquisition of motion talk by English-speaking learners of Russian, prior studies report facilitative effects if L1 and L2 belong to the same typological group and negative interference if L1 and L2 are typologically different with regard to encoding motion (e.g., Yu, 1996; Navarro & Nicoladis, 2005; Negueruela et al., 2004). Based on this evidence, it would be logical to assume that in the case of the S-framed English and Russian, English-speaking learners of Russian should have no difficulty learning how to express motion, but, as we saw in Chapter 1, the evidence currently reported by teachers of Russian (albeit not backed by empirical research), points to the contrary. In order to explain this apparent contradiction and to interpret the findings of the present study, in this chapter I turn to the theoretical and pedagogical literature that addresses the surface structures involved in the encoding of motion events in English and Russian.

Accordingly, this chapter consists of two parts. Section 3.2 succinctly summarizes the descriptions of English motion talk which have been widely discussed and studied by
typological linguists. Specifically, the focus of the discussion is on the varied verbal vocabulary for encoding manner, the specifics of path segmentation, and the temporal-aspectual contouring of motion events in English.

Section 3.3 is more extensive as it has a different goal: it synthesizes currently disjointed yet in-depth descriptions of the elements involved in the expression of motion talk in Russian (manner, path, and temporal-aspectual contouring similar to English, but also directionality unique to Russian and some other Slavic languages). The discussion in Section 3.3 is based on the work of Slavic linguists and goes beyond outlining general typological categories; it is also informed by the pedagogical materials and, thus, highlights the aspects of Russian motion talk deemed the most problematic by teachers of Russian for English-speaking learners. Section 3.3 thus provides a unifying yet fine-grained description of how motion domain is encoded in Russian based on the available literature. The review of the literature will also show, however, that current discussions related to encoding of motion in Russian are profuse yet informed by prescriptive grammars and theorizing rather than corpus-based research.

3.2. Expression of motion in English

Most of the available typological literature on the expression of motion has been written in English and on English. The foundational work by Leonard Talmy addresses a variety of languages, but English is used for illustrations and examples (when it is suitable). Extensive research by Dan Slobin and his colleagues (Berman & Slobin, 1994; Slobin & Hoiting, 1994; Özçalişkan & Slobin, 1999, 2000; Slobin, 1996, 1997, 2003a, 2003b, 2005a, 2005b, 2006) during the last decade or so has addressed crosslinguistic
variables in the expression of motion; however, for the most part English is used as a prototypical example of an S-framed language and, as such, as a benchmark for typological comparisons. Considering the amount of literature available on the topic, the purpose of this chapter is to provide a brief summary of how motion is encoded in English to inform the following analysis of possible crosslinguistic influences in L2 motion talk of American learners of Russian in Chapter 5.

3.2.1. Manner of motion

As discussed in Chapter 2, it is a well established fact that languages differ significantly in the attention that they pay to manner as a dimension of motion events, which seems to be largely determined by the dichotomy of lexicalization patterning in V-framed vs. S-framed languages. English is often cited as a prototypical S-framed language in which manner is remarkably prominent - in discourse and even in non-verbal cognition of English speakers (e.g. Kersten et al., 2003; Oh, 2003). In English, as well as in other S-framed languages, motion is encoded by verbs and the richness of the verbal repertoire for encoding of manner in English is particularly robust (i.e. richer than in other S-framed languages, e.g. German, Dutch, or Swedish (Slobin, 2005a, 2006)).

A sign located in the San Diego Zoo and quoted by Slobin (2006, p.60) serves as a neat illustration of the variety of manner verbs in English; the sign reads:

DO NOT TREAD, MOSEY, HOP, TRAMPLE, STEP, PLOT, TIPTOE, TROT, TRAIPSE, MEANDER, CREEP, PRANCE, AMBLE, JOG, TRUDGE, MARCH, STOMP, TODDLE, JUMP, STUMBLE, TROD, SPRING, OR WALK ON THE PLANTS.

In comparing the English original of *The Hobbit* by Tolkien (1987) to its available translations, in Chapter 6 alone Slobin (2005a) found 26 different types of manner verbs
which he categorizes into such sub-types of manner as “rapid”, “slow, cautious”, “saccadic”, “impaired”, “continuous”, “ascending”, “sliding”, “wandering”, and “foot movement” (p.10).

Slobin (2003a) argues that the domain of motion has been gaining salience in the English language diachronically. He notes that manner of motion was already an elaborated semantic domain in the Old English period, and history shows continuing innovation with such verbs added to the Oxford English Dictionary in the 19th century as barge, clomp, cruise, dodder, drag oneself, ease, goose-step, hustle, leapfrog, lope, lunge, lurch, mosey, meander, race, sashay, scoot, scurry, skitter, smash, stampede, stomp, waltz, zip (p. 235).

The accumulated work on S-framed languages in general, and English in particular, has investigated the expression of motion manner by speakers of various groups (children aged 3-9 and adults), in various modalities (written vs. oral languages), and genres (picture-elicited narratives, novels, newspaper reports, and conversations). Salience of manner in English is highly pronounced irrespective of genres and discourse contexts. Slobin attributes the habitual nature of manner encoding in English to the fact that the expression of manner is economical in S-framed languages, i.e. the main verb of a clause is available for the expression of manner (in contrast, in V-framed languages manner is expressed by subordinate elements such as a gerund or adverbial expressions).

Slobin (2003a) has suggested that the “processing factor”, i.e. relative ease of processing a verb in English as opposed to an adjunct clause in V-framed languages, results in cognitive consequences for speakers of English, including the following:

- references to manner occur frequently across discourse contexts;
- manner verbs are acquired early;
- lexical innovations are frequent, including metaphorical uses;
- speakers have rich mental imagery of manner of motion;
- manner of motion is salient in memory of events and verbal accounts of motion events.

The evidence from a variety of assessments related to motion manner (including ease of lexical access, translation, child language acquisition, imagery, etc.) have led Slobin to formulate his “thinking for speaking” framework discussed in Chapter 2. Speakers of English are believed to have developed the ability to notice and memorize manner of motion early on in their language acquisition.

3.2.2. Path of motion in English

According to Talmy (2000a, 2000b), path in English is mostly encoded through verbal particles (satellites) such as up, out, off, in, etc. S-framed languages like English are termed this way because path is framed largely by using satellites. While satellites often appear alone in encoding path in English, path is often expressed fully by the combination of a satellite and a preposition. In some S-framed languages like Russian, for examples, satellites are attached to the verb as prefixes; in English, on the other hand, satellites are mostly free-standing (except for a few prefixes like over-, and under-). Talmy (2000b) insists that satellites should be well distinguished from prepositions, but it is often challenging to distinguish between satellites and prepositions in English because a set of forms that can function as satellites also overlaps partially, but not wholly, with a set of prepositions. For example, consider some English satellites recognized by Talmy
Talmy (ibid.) notes that most of the above elements can function as prepositions as well (except for together, apart, and forth), but in regard to phrase structure and co-occurrence, a satellite is in constructions with a verb, while a preposition is in constructions with a noun phrase. Thus, particles are syntactically and semantically linked to the verb, and prepositions to nouns.

Verb-satellite combinations are often used in English to build multi-word phrases (Biber et al., 1999) such as look ←² down or take ←in and also extended prepositional phrases such as ←back to the roots, ←down in the middle, ←up in the mountains (p.78). Biber et al. (ibid.) point out that particles face both ways: on the one hand, they are closely related to the verb, but on the other hand they serve as specification for the prepositional phrase that follows.

Instructional materials for learners of English as a second language rarely focus on the topic of motion expression, but most of them address multi-word combinations that comprise relatively idiomatic units in English and function like single verbs, such as verb + particle (i.e. pick up, kick over) and verb + particle + preposition (i.e. get away

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1 The superscripts distinguish between the different meanings of polysemous satellites.
2 After Talmy, I use arrows to disambiguate between prepositions and satellites. Satellites are marked with an arrow symbol pointing to the head, i.e. the verb.
with) (Biber et al., 1999; Hoffmann, 2005; Huddleston, 1999; Gray, 2004; Sinclair & Moon, 1991). Such multi-word combinations in English are indeed important for the expression of motion scenes and for interpreting the meaning of phrasal units which include satellites. Phrasal verbs typically combine with particles which denote location or direction, and most of the verb-particle-preposition combinations are formed from motion verbs. In fact, drawing on their corpus research, Biber et al. (1999, p. 425) report that the most frequent of such combinations in English are get out of, come out of, get back to, went up to, set out in, turn away from.

English prepositions which serve to locate a figure and its path in relation to a reference object (ground) are also frequently found in multi-word combinations in English. Huddleston (1998, p.127) mentions such frequent preposition-noun-preposition sequences as as far as, in front of, in relation to, in proximity to, on entry to, on top of, beyond reach of, under cover of. Biber et al. (1999) note that complex prepositions have received little scholarly attention in spite of their frequency. They point out that a recently published dictionary of English complex prepositions by Klégr (2002) lists a total of 1,084 different preposition-noun-preposition constructions.

The multi-word combinations, which include free-standing particle-satellites, allow for a fine granularity of path segmentation and relative ease for building complex path constructions in English. Slobin (2003b) has analyzed the expression of path in the narratives of English speakers and found that many sub-trajectories are often packaged into an overall trajectory quite tightly in their speech, i.e. one manner verb can be followed by a number of path segments. For example,

*the frog crawled out of the jar and through the window into the woods* (p.236) or
they decided to walk outside the house down to the back of the garden into the bit of a forest there (p.237).

On the basis of his narrative data, Slobin (2003b) concludes that S-framed languages, including English, are “more likely to break up the event into a larger number of components, based on ‘narrative habits’ of compacting several path components in a single clause” (p.237). McNeill (2005) similarly reports that English participants in his study tended to render complex curvilinear paths by a series of descriptions of multiple path segments (up to six) following one verb. This strategy is not always permissible in other S-framed languages, however. For example, in Russian and other Slavic languages only one prefix-satellite can be used with a motion verb, which limits the number of prepositional path segments that can follow the verb.

With regard to the “stackability” of path segments in English, there might be significant differences across discourse genres. Biber et al. (ibid.) have compared the use of complex prepositional phrases across registers and report that conversation has a preference for shorter syntactic forms; this preference is particularly apparent in the distribution of prepositional phrases. They found that the great majority of prepositions in conversation are 2-3 words in length, and that the proportion of lengthier prepositional phrases increases from fiction to news to academic prose. Prepositional phrases of 6 words or more are rare in conversation but they account for a substantial proportion of all prepositional phrases in the written registers, e.g. news and academic prose in English.
3.2.3. Aspect as a semantic element of a motion event in English

Talmy (2000b) includes aspect as one of the semantic components of a motion event and defines aspect as “the pattern of distribution through time of an action or state” (p. 157). In English, lexical aspect can be incorporated into verb roots, i.e. hit refers to a single impact but beat implies iteration. Also, in I started /continued /stopped/ finished sweeping there is a temporal counter that provides conceptual information beyond the act of motion (Talmy, 2000a). Lexical aspect is concerned with inherent properties of verb meanings, but English also includes grammatical aspect, which is concerned with the speaker’s perspective or view of the situation.

English has two main types of grammatical aspect, perfect and progressive (or continuous). The perfect aspect designates events or states taking place during a period leading up to the specified time: ‘now’ or ‘relevant to now’ in the case of present perfect, ‘prior to some other past action’ for past perfect, and ‘prior to some future action’ in the case of future perfect. Progressive aspect, on the other hand, is used to describe activities or events that are in progress at a particular time or over a particular period of time, be it at present (present progressive), in the past (past progressive), or in the future (future progressive). Perfect progressive combines the meaning of ‘prior’ with that of ‘incompleteness’ and refers to events and actions in progress that have begun at some prior point and have not yet been completed. (Pavlenko & Driagina, 2006; for an in-depth discussion of the English tense and aspect system from a pedagogical perspective, see Celce-Murcia & Larsen-Freeman, 1999; Yule, 1998). Structurally, the two aspects in English are distinguished as follows: perfect aspect is marked by the auxiliary verb have + ed-participle; and the progressive aspect is marked by the auxiliary verb be + ing-
particle. Both aspects can be combined with either present or past tense.

In English it is also possible to have zero aspect, i.e. no grammatical aspectual marking on the verb. It is not the case in Russian, for example, where each verb must be marked for grammatical aspect. In contrast, in English zero aspect is “overwhelmingly the most common in all (conversation, fiction, newspaper language, and academic prose) registers” according to Biber et al.’s (1999, p.461) analysis of a 40-million-word corpus. They report that about 90% of all verbs in English are unmarked for aspect. They also explain that when aspect is marked grammatically, perfect aspect verb phrases occur relatively frequently in all registers (but only in 5%-10% of all verb phrases), and progressive aspect verb phrases are even less common. Except for fiction, the large majority of perfective/progressive aspect verbs are in the present tense. Perfective progressive verb phrases (e.g. *he has been running*) are extremely rare in all registers comprising less than 0.5% of all verb phrases. Thus, while English verb roots regularly encode lexical aspect, grammatical marking of perfect and progressive aspect is much less common in English.

3.2.4. Concluding remarks

In short, what stands out from the descriptions of motion talk in English is the astounding variety of manner verbs available to its speakers. The semantics of manner in English may include a variety of shades and nuances not easily encodable in V-framed languages, and, possibly, not in other S-framed or E-framed languages (e.g. Dutch, German, Swedish, or Mandarin, as described in Section 3.2.1).

The repertoire of various (polysemous) particles that encode path and
prepositional phrases, which locate a figure and its path in relationship to ground, is also impressive. Due to the high number of complex particle-preposition combinations and stackable prepositional phrases to encode path, the expressions of path characteristic of English speech are elaborate and fine-grained. As we saw from the attested examples, one English manner verb can have up to six different path segments in its scope, although such complex paths are more typical of written genres.

As for the temporal contouring of motion events, while English verbs have inherent lexical aspect (i.e. verbs can be activities, accomplishments, achievements, and states), in 90% of the instances verbal phrases are unmarked for aspect grammatically (i.e. simple verbs are used as opposed to perfect and/or progressive forms). We will see from the discussion in Section 3.3 that English and Russian have particularly significant differences in temporal framing of motion events.

3.3. Expression of motion in Russian

In the fields of Slavic linguistics and pedagogy, the semantic domain of motion is acknowledged as an important topic for investigation and has been meticulously described in both theoretical and instructional terms. This section of the dissertation draws on the available literature to provide 1) a comprehensive coverage of the linguistic elements involved in the expression of motion meanings in Russian and 2) possible caveats that might exist for English-speaking learners of L2 Russian in using these linguistic structures.

Based on the review of the Slavic literature, several linguistic elements are

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1 As discussed in Chapter 1, empirical pedagogical or acquisitional investigations in the domain of motion are currently lacking; therefore, only inferences about learner difficulties can be made at this point.
identified in this chapter as the key foci for describing motion in Russian. I begin by discussing the category of verbs of motion (Section 3.3.1) and examining their place within the overall system of the Russian verb. The notion of directionality in space is paid particular attention to due to the unique semantic architecture of directed VoM in Russian and their notorious status as one of the most pedagogically problematic categories in Russian grammar. Section 3.3.2 highlights the fact that Russian is also characterized by a remarkably rich verbal lexicon for encoding motion meanings, particularly in the domain of motion by foot and the means of conveyance.

Section 3.3 is devoted to the linguistic elements other than VoM that also participate in the encoding of motion meanings in Russian. Specifically, Section 3.3.3 reviews the role of spatial prefixes with which Russian VoM combine to explicate motion path. This section illustrates the richness of path nuances that can be encoded through prefixes in Russian and points out the importance of speaker perspective for choosing an appropriate path prefix in descriptions of motion scenes.

While VoM (unprefixed and prefixed) are typically the locus of discussion on expression of motion in Russian, Section 3.3.2.2 also addresses such linguistic categories as prepositional phrases with spatial meanings and case government associated with the use of spatial prepositions in directional and locative phrases. This section explains that prepositional phrases work in conjunction with prefixes in Russian as a semantic unit in encoding motion path; it also explains how this close interrelationship between prefixes and prepositional phrases limits the scope of the verb in terms of granularity of path segmentation.

Section 3.3.4 brings aspectual meanings into the discussion of how motion is
encoded in Russian. It highlights the fact that VoM combine with aspectual prefixes to form new motion verbs with new procedural meanings (i.e. Aktionsarten). An important conclusion is that prefixed VoM can encode motion and path, but additionally, through aspectual prefixation, they can also provide further details on how motion events develop in terms of time and intensity.

The purpose of the following review is twofold: to provide a comprehensive overview of the linguistic structures involved in the expression of motion events in Russian, and to identify the aspects of Russian motion talk that might be particularly relevant to the topic of L2 acquisition on the other hand by drawing on the insights from the existing pedagogical materials.

3.3.1. Russian motion verbs

3.3.1.1. Verbs of motion within the verbal system of Russian

In theoretical work and pedagogical materials for L2 learners of Russian, explicit references to the semantic domain of motion are typically found only in discussions of the category of the verb. It is not surprising that the verb receives central attention in the semantic domain of motion and beyond: the verb is the most common part of speech in the Russian language (every fifth word is a verb (Rosental’ & Telenkova, 1984). In the general typological work in the North American context, as we have seen, (Slobin,

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verbs are the focal point of analysis as well: whether it is an S-, V-, or E-framed language, motion verbs are not optional. There is a general agreement that in the Russian language, motion expressions manifest themselves largely through the use of VoM. Furthermore, VoM is one of the central and challenging pedagogical topics in the Russian grammar (Eckert, 1988; Foote, 1967; Launer, 1987; Lonstrup, 1981; Pahomov, 1977).

Before I focus on the complexities of the category of VoM, it is important to point out that the Russian verb in general is the most intricate category in the Russian language in terms of the range of meanings (lexical, grammatical, procedural) that it can impart. There is also a common agreement that the verb has the richest and the most complex sub-system of grammatical forms in the language. Verbal meanings in Russian are rendered through the categories of aspect, tense, voice, mood, and person. Russian is a synthetic language; the verb is thus characterized by a complex conjugational paradigm (see Appendix A for an overview of the paradigm of the verbs delat’ (imp.) and sdelat’ (pf.) ‘do’).

A characteristic of the Russian verbal system that significantly differentiates it from English is that all Russian verbs have an imperfective or a perfective aspectual meaning\(^1\) which characterizes how the event unfolds or exists in reference to a time-line (Bussmann, 1996; Zalizniak & Shmelev, 2000). In English, a verb in its infinitive form is

\(^1\) Grammatical aspect should not be confused with lexical aspect, which is an inherent property of verbs and distinguishes them in terms of internal temporal constituency (Binnick 1991, Comrie 1976). In general terms, lexical aspect marks typical distinctions between verbs that express states, activities and achievements (Vendler, 1957). There is a close interrelationship between the categories proposed by Vendler in that depending on their lexical aspect, verbs may or may not combine with perfective or imperfective aspect (Paducheva, 1990). In reference to L2 acquisition, prior acquisition studies suggest that L2 learners of Russian, as well as L2 learners of other languages, can make inappropriate aspectual choices because they may conflate or confuse the meanings and distinctions between the two types of aspect (e.g. Andersen, 1990; Bardovi-Harlig, 1992; Perel’tsvaig, 2005).
not marked for aspect – auxiliaries and suffixes are needed to impart aspectual meaning to the verb. This is not the case in where grammatical aspect is an obligatory category that characterizes all forms of the verb, including infinitives, imperatives, and participles (e.g. *pryga’t* ‘jump’ [inf.; impf.] vs. *prynut’* [inf.; pf.]). In Russian every verb, including motion verbs, intrinsically encodes grammatical aspect, i.e. there is no verb that is unmarked marked for aspect with the exception of the the verb *byt’* ‘be’ (Chertkova, 1996; Cummins, 1983; Forsyth, 1970; Vinogradov, 1972). While most of the verbs form aspectual pairs (e.g. English *stomp* vs. Russian *topat’* [imp.] and *topnut’* [pf.]), some lack true pairs, as, i.e. all of the unprefixed (non)unidirectional verbs which are all imperfective. Aspect in Russian is, therefore, a superior category to tense and mood, since all verbs and some verbal forms (e.g. infinitives, participles) encode aspectual information, but not tense. As Wade (2000) puts it, “the Russian verb system is dominated by the concept of aspect” (p.268). Most Russian verbs form aspectual pairs, (i.e. *sovershennyi vid* ‘perfective aspect’ vs. *nesovershennyi vid* ‘imperfective aspect’) whose members can be formally distinguished from each other by a number of characteristics (e.g. suffixation, derivation from different roots, stress), with prefixation being the most common means of perfectivization, e.g. *smotret’* ‘[imp.]’ vs. *po-smotret’* [pf.] ‘read’. Russian does not grammatically encode progressive and non-progressive (Forsyth, 1970; cf. the discussion on the topic later in this chapter).

VoM have all the characteristics of the Russian verb, but they also stand out from the verbal system in several important ways. Thus, VoM are discussed in the pedagogical literature as anomalous in terms of their structural irregularities, (see Appendix B to consider the conjugational pattern of the verb *idti* ‘go’), unique semantic characteristics,
and special interrelationship with aspect. Naturally, *glagoly dvizheniia* (‘verbs of motion’) present one of the most thoroughly researched areas and scrupulously described topics in the fields of Slavic linguistics and L2 pedagogy. However, there is a limitation that characterizes this body of research: the group of verbs that is meticulously studied by Slavists and labeled as the VoM is in fact a very small and limited lexical group of verbs in the Russian language.

The term *glagoly dvizheniia* traditionally used in the Slavic literature is quite arbitrary considering that it does not nearly include all the verbs signifying motion in Russian. For a person not familiar with the conventions in this area of Slavic studies, it would come as a surprise that such verbs as, for example, *dvigat’sia* ‘move’, *guliat’* ‘walk leisurely’, *prygat’* ‘jump’, *vertet’sia* ‘spin’, *stupat’* ‘step’, etc. are not considered to be “verbs of motion”, and, therefore, are not part of the Slavic research agenda regarding motion expressions. The category of Russian VoM - as it is typically presented in the Slavic literature - contains fourteen pairs of verbs only, but not because the language lacks a rich inventory of verbs describing motion; rather, because the rigid boundaries for inclusion in the group are based on a seemingly isolated “pairedness” feature in terms of semantics and morphology that characterizes and binds a small number of Russian motion verbs. These verbs form a fixed paired opposition of two imperfective forms (e.g. *idti – khodit’* both corresponding to the English ‘to go’), which presents an interesting case for linguistic analysis. Thus, the primary semantic feature of this class of VoM is that when unfixed, the verbs come in imperfective pairs that in essence state the same type of “basic” movement involved (e.g. walking on foot, flying, swimming) but still provide somewhat different information about the nature of the action (Foote, 1967;
Isachenko, 1960; Forsyth, 1970). As Isachenko (1960) puts it, the two paired groups of VoM provide different “stylization” of the process of motion from the point of view of how it is unfolding or developing in space. Many linguists have endeavored to explicate the nature of the exact semantic differences between the two groups, but there is still some disagreement and confusion about the nature of this variance. Before the proposed differences are discussed in detail below, compare the use of one such pair, \textit{idti} – \textit{khodit’} (roughly corresponding to the English ‘go’) in the contexts retrieved from the Russian National Corpus:

\textit{idti}

1) \textit{Nauku vsio ravno ne ostanovit’, i ona budet \textit{idti} vpered.} \hfill ‘You can’t stop science, and it will be going forward.’

2) \textit{On ne slyshit, \textit{idet} bystro.} \hfill ‘He can’t hear, he’s walking [literally: goes fast.’

3) \textit{Ia propal, ne znaiu, kuda \textit{idti}.} \hfill ‘I am in trouble, I don’t know where to go.’

4) \textit{Nu vot \textit{idu} ia po ulitse Gor’kogo.} \hfill ‘So here I am walking [literally: go] down Gorky Street.’

\textit{khodit’} ‘go’

5) \textit{V tot zhe den’ ia vstal i mog \textit{khodit’}, na drugoi den’ ia pochustvoval eshche bol’she sily.} \hfill ‘That same day I got up and could walk [literally: go], the next day I felt even stronger.’

6) \textit{Teatr nuzhen mne, khotia ia \textit{khozhu} v nego ne vsegda.} \hfill ‘I need the theater, although I don’t always go there.’

7) \textit{Khozhu ia znakomymi zakoulkami po liubimomu tsentru.} \hfill ‘I am walking up and down [literally: go] familiar backstreets in my favorite city center.’

8) \textit{Priznavaisia, nebos’, \textit{khodili} v cheshskii klub, pivo pit’?} \hfill ‘Tell the truth, you probably went to the Czech club to drink beer?’
Clearly, there are no parallel lexical means in English which impart the exact semantic opposition denoted by the verbs *idti* and *khodit’*, which form a lexical pair. To translate the examples above, in some cases the verb *go* needs to be used for both *idti* and *khodit’*, and in other cases circumlocution is in order to explicate the intended meaning. Notably, the very existence of this opposition has not been described in the comparative typological literature on motion talk in the Northern American context (e.g. in the work of Leonard Talmy or Dan Slobin), but the semantic dichotomy encoded by *idti* and *khodit’*-type verbs adds to the currently described range of motion concepts that can be encoded by verbs cross-linguistically. The description of the opposition can contribute to our understanding of typological differences among languages, at the very least between Russian and English. The next section summarizes the attempts to explicate the nature of the opposition expressed by *idti* and *khodit’*-type verbs in the Slavic literature.

3.3.1.2. VoM as a closed category

The small group of VoM\(^1\) is a closed and nonproductive sub-system in the larger Russian verb system. There is a baffling plethora of terms which are used to identify the two paired subgroups of VoM (i.e. *idti* and *khodit’*-type verbs), which reflects the efforts to describe VoM on a general level and to point out characteristics that distinguish between the two groups. Some of the terms that are typically attributed to *idti*-type verbs include “unidirectional”, “definite”, “determinate”, “linear”, “non-frequentative”,

\(^1\) Historically, VoM were also referred to as *glagoly peremeshcheniia* ‘verbs of locomotion’ or ‘verbes de déplacement’, ‘verbes de locomotion’ by Karcevski in 1927, and the term *glagoly dvizheniia* ‘verbs of motion’ was first introduced by Shakhmatov in 1925 and adopted thereafter (Slonek & Oliverius, 1971). While some linguists have protested against using the term “verbs of motion” to refer to all verbs denoting motion (e.g. Dmitrieva, 1990; Titelbaum’s, 1990 insisted on the term “verbs of transposition” to differentiate between VoM and motion verbs as a general semantic group), this convention persists in Slavic linguistics to the present day.
“actual”, “durative”. On the other hand, the terms describing the other group are “multidirectional”, “indefinite”, “indeterminate”, “iterative”, “frequentative”, “non-actual”, “potential”, “non-directed”, and “non-unidirectional”. None of the terms is completely satisfactory, for they all focus on different nuances that distinguish the two groups and as such specify and refer to only one function or characteristic of the VoM. The most commonly used terms in the modern pedagogical literature are “unidirectional” vs. “multidirectional” verbs which focus on the verbs’ directedness in space, while in the theoretical literature the more abstract terms “determinate” vs. “indeterminate” are more frequent. In Foote’s (1967) opinion, the latter terms are more satisfactory because they entail the broadest implications, i.e. they capture a number of characteristics by implicature (i.e. determinativeness). On the other hand, the terms “determinate” and “indeterminate” are so broad that they hardly communicate any substantive information about motion events at all.

The conclusion that can be drawn from the proposed identifiers is that the general tendency among grammarians is to provide a positive definition for idti-type verbs (i.e. the definition focuses on the meanings that the verbs encode) and a largely negative definition for khodit’-type ones (Foote, 1967), i.e. typically the meanings of the unidirectional verbs are outlined first, and then the semantics of the non-unidirectional verbs is described as not containing this range of meanings (e.g. see the explanation provided by Vinogradov et al., 1960 in Section 3.3.1.2.2.)\(^1\). This is due to the fact that the latter verbs are believed to be more varied in their functions and united only by their inapplicability to the contexts where the idti-type verbs with more positive characteristics

\(^{1}\) For the same reason, Forsyth (1970) refers to the unidirectional verbs are marked and non-unidirectional verbs as unmarked.
of determinacy, unidirectionality, actuality, etc. should be used (Foote, 1967). In fact, Isachenko (1960) argues that *khodit’*-type verbs are the “weaker” members of the correlation because their semantics lacks positive information about directedness of motions in space and does not signal *unidirectionality*. Ward (1965, p. 252) expresses a similar opinion that “the only meaning common to the indeterminate verbs [i.e. *khodit’*-type verbs] is absence of the idea of motion in one direction”. Taking this into consideration, I will utilize the terms “unidirectional” vs. “non-unidirectional” for purposes of the present analysis.

Table 1 contains the list of the verbs that are traditionally considered to be members of the micro-system of the Russian VoM.

<table>
<thead>
<tr>
<th>Unidirectional</th>
<th>Non-unidirectional</th>
<th>Translations</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>idti</em></td>
<td><em>khodit’</em></td>
<td>“to move along on foot”</td>
</tr>
<tr>
<td><em>bezhat’</em></td>
<td><em>begat’</em></td>
<td>“to run”</td>
</tr>
<tr>
<td><em>bresti</em></td>
<td><em>brodit’</em></td>
<td>“to wander”</td>
</tr>
<tr>
<td><em>vezti</em></td>
<td><em>vozit’</em></td>
<td>“to carry by vehicle / to convey”</td>
</tr>
<tr>
<td><em>vesti</em></td>
<td><em>vodit’</em></td>
<td>“to lead”</td>
</tr>
<tr>
<td><em>gnat’</em></td>
<td><em>goniat’</em></td>
<td>“to drive (a heard, etc.)”</td>
</tr>
<tr>
<td><em>ekhat’</em></td>
<td><em>ezdit’</em></td>
<td>“to move along by means of a conveyance; to drive”</td>
</tr>
<tr>
<td><em>katit’</em></td>
<td><em>katat’</em></td>
<td>“to roll”</td>
</tr>
<tr>
<td><em>lezt’</em></td>
<td><em>lazit’</em></td>
<td>“to climb”</td>
</tr>
<tr>
<td><em>letet’</em></td>
<td><em>letat’</em></td>
<td>“to fly”</td>
</tr>
<tr>
<td><em>nesti</em></td>
<td><em>nosit’</em></td>
<td>“to carry (usually in hands)”</td>
</tr>
<tr>
<td><em>plyt’</em></td>
<td><em>plavat’</em></td>
<td>“to swim”</td>
</tr>
<tr>
<td><em>polzti</em></td>
<td><em>polzat’</em></td>
<td>“to crawl”</td>
</tr>
<tr>
<td><em>taskhit’</em></td>
<td><em>taskat’</em></td>
<td>“to drag”</td>
</tr>
</tbody>
</table>

The verbs that are sometimes also included in the “VoM” list are derived from

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1. Nesset (2000) takes this view even further to argue that *khodit’*-type verbs do not involve specifications of directionality at all, but as we will see in later sections, this is not always the case.

2. Not all of the VoM pairs are “true” pairs, as they do not have share parallel lexical meanings that the rest of the pairs do. Thus, in the *bresti – brodit’* pair the first verb means ‘to walk slowly, drag oneself along’, and the second means ‘to wander aimlessly’ (Foote, 1967; Wade, 2000).
transitive VoM through addition of reflexive suffixes, e.g. *tashchit’* ‘drag’ + *-sia* = *tashchit’sia* ‘to drag one’s feet’. In some cases, new reflexive verbs have meanings that cannot be deduced from the nonreflexive forms, e.g. *nesti* - *nosit’* ‘carry’ vs. reflexive *nestis’* – *nosit’sia* ‘to rush about, speed’. The main caveat in understanding the category of VoM, however, lies in comprehending the exact nature of the semantic opposition between the two VoM groups. I will discuss this opposition in the following section.

3.3.1.2.1. Unidirectional VoM

Foote (1967, p. 6) has compiled a multitude of definitions put forward by Slavic grammarians to describe unidirectional verbs. These definitions characterize the verbs as “referring to actions taking place in one direction, continuously, at any given moment”, “definite, concrete, uninterrupted and directed actions”, “motions in a definite direction, actually taking place at a given time”, “actions in progress at a given point in time”, “actions in progress of occurring and processes which are straightforward in the sense that they are thought of as occurring in only one direction”. Table 2 on the next page summarizes the explanations that are typically given in textbooks and reference materials regarding the meanings of unidirectional verbs.

However, the table does not explain which semantic characteristics of VoM motivate their usage in such varied contexts. More explanatory descriptions of the semantics of unidirectional verbs are available in the theoretical literature. According to the Academy of Sciences definition (Vinogradov, 1972), there are at least three features characteristic of all the actions expressed by unidirectional VoM. Accordingly,
Table 2. Usage of unidirectional verbs

<table>
<thead>
<tr>
<th>Contexts of use</th>
<th>Examples</th>
</tr>
</thead>
</table>
| 1. Movement at a given time; with expressions such as *When I was going...* or *There went...* | *Poezd šel na iug.*  
‘The train was on its way south.’ |
| 2. Movement with a purpose                                                      | *Ja idu vstrechat’ otsa.*  
‘I’m going to meet my father.’ |
| 3. Future trip that is about to take place                                     | *Zavtra my letim v Tver*.  
‘Tomorrow we are flying to Tver’. |
| 4. Habitual and repeated trips:                                                | *Obychno ja idu s raboty peshkom, a na rabotu edu na avtobuse.*  
‘I usually walk home from work, but go to work on the bus.’  
*Kazhdom utro ia vstaiu, zavtrakaiu, i idu na avtobusniu ostanovku.*  
‘Every morning I get up, have breakfast and go to the bus stop.’ |

such motion actions “flow” or unfold:

1. in one direction;
2. continuously;
3. at a particular moment.

Thus, this position attributes specific *directional*, but also *temporal* and *aspectual* characteristics to the motion events described by unidirectional verbs. Similarly, Karcevsky (1927, cited in Isachenko, 1960) emphasized that the semantics of unidirectional verbs includes references to both direction of motion events and time. The idea that VoM are a special aspectual type (more specifically, a subtype of imperfective) has also been expressed a number of times (e.g. Peshkovsky, 1956; Vinogradov et al, 1960; Zalizniak & Shmelev, 2000). Progressive is not formally encoded in Russian, and all imperfective verbs in the present tense can potentially express continuity of an event.
depending on the context of the utterance. Accordingly, unidirectional verbs are discussed as being inherently progressive in that they describe only *konkretnoe deistvie* ‘actual activity’; in contrast, non-unidirectional verbs can additionally describe *otvelechionnoe deistvie* ‘detached or non-actual’ activity’ (Karcevsky, 1927; Potebnya, 1977). Hence, there appears to be agreement among Russian grammarians that the semantics of the two types of VoM includes their correlation with the particulars of how a motion event develops in time. Some textbooks for Russian L2 learners, however, place the emphasis in describing the meaning of VoM in terms of directionality only.

The exclusive focus on unidirectionality can be misleading, which is particularly evident from the analysis of diagrammatic representations frequently adopted in textbooks. Such diagrams typically portray the trajectory of unidirectional verbs as a straight arrow, e.g. Mahota, 1996, p. 7.

**Diagram 1. Unidirectional Motion**

![Unidirectional Motion Diagram](image)

Yet, unidirectional VoM can additionally represent movement events that do not have straight trajectories, even though movement forward is emphasized (*On zigzagami shel k domu* ‘He zigzagged towards the house’) or even an explicitly stated goal or direction, (e.g. *Poezd idet bystro* ‘The train is going fast’), from Foote (1967, p.7). Not unlike Vinogradov et al. (1960), Foote (1967) describes essential qualities of the unidirectional verbs as pertaining to (1) the idea of *progression* of motion; and (2) advancing *along a line*, which does not need to be straight. In some contexts cited by Foote the idea of progress is prevalent (*Samolot gorel, no prodolzhal letet*. ‘The plane was on fire, but still
went on flying’). In other contexts, the idea of “moving along” is more prominent (Po doroge iddi legche, nezheli bez dorogi ‘It is easier to go along a road than across country’). Foote (ibid.) also notes that sometimes a general line that takes the figure away from some notional starting point towards some notional goal is only implied, even when motion is unconscious (e.g. On she1, ne znaia kuda ‘He didn’t know where he was going’ (p.7).

The semantics of unidirectional verbs with their focus on directed progression in time is well suited for denoting a motion event which is envisaged as already unfolding and in progress. That is why unidirectional verbs can be used in the present tense to denote a planned trip (Zavtra ia lechu v Moskvu ‘Tomorrow I am flying to Moscow.’)

A number of linguists have pointed out that only unidirectional verbs can be used to describe fictive motion. Thus, Foote (ibid., pp. 14-15) cites the following examples of fictive motion expressed by unidirectional VoM:

9) Krugom les, zigzagom bezhit vniz pod’ezdnaia doroga.
‘There’s forest all round; the approach road runs zigzagging down below.’

10) Zhirnaia krasnaia liinia polzet cherez vsiu kartu.
‘A thick red line crawls right across the map.’

11) Cherez fortochku, s ulisty shli provoda k dvum polevym telefonam.
‘From the street ran wires through the ventilating-pane to two field-telephones.’

Unidirectional verbs are also used in idioms and other set phrases indicating metaphorical motion in Russian (e.g. Idet dozhd’ ‘It is raining [literally: rain goes]’, Begut gody ‘Years move by fast [literally: years run].’ Foote (1967) notes that only unidirectional verbs can be used in such contexts due to their semantics of progressive advancing motion along a linear trajectory; idiomatic expressions with these verbs incite images of constant one-
way movement, be it rain, years, smoke, or smell (hence expressions like dym idet iz truby ‘the smoke is coming out of the chimney [literally: smoke goes]’ and neset tabakom ‘smells like tobacco [literally: it carries tobacco]’. Metaphorical uses of prefixed VoM derived from the unidirectional verbs are frequent as well, e.g. K nei v golovu pri-shla ideia ‘She got an idea [literally: An idea came [arrive-came] to her head’. Poekhali! ‘Come on!/ Let’s go’ [literally: set off-driving [3rd person plural; past tense]’. The use of non-unidirectional verbs is logically unacceptable in such contexts. As discussed in the next section, the semantics of the non-unidirectional verbs offers a different perspective on a motion event.

3.3.1.2.2. Non-unidirectional VoM

As already mentioned, non-unidirectional VoM are frequently described from a negative perspective in an attempt to unite their various meanings by differentiating them from the semantics of the unidirectional verbs. Vinogradov et al. (1960) suggest that non-unidirectional verbs refer to motion events which unfold:

(1) not in a single direction;
(2) not at one take; and
(3) not at the same time or at once.

The “negative” approach to explaining the semantics of the non-unidirectional verbs is not always effective: considering that satisfying presentations of the unidirectional verbs are lacking from most textbooks, contrastive presentations of non-unidirectional verbs are no less problematic. An excerpt from Offord & Gogolitsyna (2005) serves as an illustration of the circular nature of such explanations:
The easiest way to grasp the distinction between the verbs in the two categories [unidirectional and non-unidirectional] is perhaps to treat those like idti as having quite specific meaning and those like khodit’, on the contrary, as covering a broader range of meanings outside of the scope of those like idti (ibid, p. 413).

Table 3 below summarizes the explanations that are typically given in textbooks and reference materials regarding the meanings of non-unidirectional verbs.

### Table 3. Usage of non-unidirectional verbs

<table>
<thead>
<tr>
<th>Contexts of use</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ability to perform an action, the capacity to perform this action in a particular way, the knowledge of how to perform it, or the manner of movement</td>
<td>Tania otlichno plavaet. ‘Tania swims very well.’</td>
</tr>
<tr>
<td>2. Random movement, movements in various directions, up and down, round and round, to and fro, backwards and forwards.</td>
<td>Mal’chiki begaiut po dvoru. ‘The boys are running around in the yard.’</td>
</tr>
<tr>
<td>3. Habitual action</td>
<td>Moia doch’ khodit v shkolu. ‘My daughter goes to school.’</td>
</tr>
<tr>
<td>4. A single round trip or a completed trip in the past tense (only in the past tense).</td>
<td>Vchera my khodili na vystavku “Istoriia Moskvy.” ‘Yesterday we went to the exhibition “The History of Moscow”.’</td>
</tr>
</tbody>
</table>

As is the case with unidirectional verbs, textbook explanations fail to account for why non-unidirectional verbs can be used to denote all of such seemingly different meanings. Diagrammatic representations intended as illustrations are oversimplified and hardly contribute to clarifying the semantics of non-unidirectional VoM. For example, consider Diagram 2 from Mahota (1996, p. 7).

**Diagram 2. Multidirectional Motion**

![Multidirectional Motion Diagram](attachment:image)
Motion portrayed in Diagram 2 appears to be in fact non-unidirectional. However, such important meanings of non-unidirectional verbs as non-actuality, habitual movement, and roundtrips are not account for in the diagram. Theoretical linguists offer conceptually-grounded interpretations of the meanings of non-unidirectional verbs. Foote (1967) proposes that the semantic architecture of non-unidirectional verbs is rooted in one overarching concept of “motion complexity”. As he explains, different factors in which a motion event is grounded can contribute to the complexity of an event. Firstly, an event can be called complex if the action is “taking place in various directions” (p.23), e.g.

12) Ekskursantov vozili v avtobuse po gorodu.
   ‘The travelers were [driven] taken around the town in a bus.’

13) Vнизу люди бегают как муравьи.
   ‘Down below people are running about like ants.’

This meaning of non-unidirectional verbs forms the very basis of their name (other frequently used terms attributed to them include ‘multidirectional’ and ‘indeterminate’). What Foote (ibid.) describes as “the action taking place in various directions” is not supposed to represent a tug-of-war-type of motion. Forsyth (1970) suggests understanding non-unidirectional verbs like *khodit*’ as consisting of a number of individual actions or motion events. Foote (ibid.) illustrates this with the example of the travelers in (12) above. In that example, a non-unidirectional verb imparts a complex view of the trip (‘the trippers were taken around the town’), but the complex view can be broken down into “simple” unidirectional segments, e.g. *Vot ikh vezut na Krasnuiu ploshchad*’ ‘Here they are being driven [uni.] to Red Square” and *Seichas ikh vezut v tsirk* ‘Now they are being driven [uni.] to the circus, etc.. In other words, when there is a need to pinpoint any particular part of the moving trajectory, then one zooms out from the
range of complex actions (non-unidirectional motion) and zooms in on a plane of simple actions (unidirectional VoM). Thus, while non-unidirectional verbs are typically characterized in the literature as verbs exemplifying movement in no particular direction and with no particular aim or goal, Foote’s (ibid.) notion of complexity allows for a collective conceptualization of non-unidirectional motion events in which the goals and trajectories of individual movements do exist (cumulatively) but are not foregrounded.

The “complex” view of the semantics of VoM also allows us to explain what is generally viewed as the eccentric feature of non-unidirectional verbs, i.e. the meaning of movement in two directions (Vinogradov et al., 1960) or the meaning of a round-trip in the past. In Russian, non-unidirectional verbs in the past tense are used to refer to movements to a particular point and back. In such contexts the use of non-unidirectional verbs necessarily implies that the subject of the motion event has already “undone” the action by coming back, e.g.

14) Vchera my khodili v teatr.
‘Yesterday we went to the theater. [And have come back by the time of speech.]’

From the “complex” point of view, the use of non-unidirectional verbs in these contexts can be viewed as conforming to the collective semantics of linked individual trips combined, referring to a fulfilled complex motion event, i.e. a round trip. Similarly, the complexity approach explains why non-unidirectional verbs are used to describe motion events involving a series of journeys to fulfill one task of carrying or conveying an object by different people (Foote, ibid., p.26), e.g.

15) Tiotia Pasha i shofer stali nosit’ vse eto v dom.
‘Aunt Pasha and the driver started carrying everything into the house.’

Likewise, the approach explains the use of non-unidirectional verbs to describe actions
that take place on a number of occasions repeatedly, habitually, or over an extended period of time. e.g.

16) My chasto khodim v teatr.
    ‘We often go to the theater.’

It should also be noted that habitual and repeated actions are characteristic of all imperfective verbs, i.e. contrary to the typical textbook explanations of VoM, habitual events are not specific to the semantics of non-unidirectional verbs only. Repeated motion events can in actuality be denoted by unidirectional verbs, although in contexts which are believed to be well-defined in terms of various syntactic and semantic constraints (Bitekhtina, Murav’eva, & Iudina, 1972; Grenoble, 1989). Rifkin (1996) explains that unidirectional verbs can refer to repeated trips, but in one direction only, and often only to one part of a trip or leg of a trip in several stages, and in particular when the length of that part of the trip is mentioned. Wade (2000) suggests that this function of the unidirectional verbs is restricted to contexts in which reference is to actions or processes occurring in sequence.

There is evidence that the choice of unidirectional vs. non-unidirectional verbs in frequentative contexts is not very clear-cut. Thus, Grenoble (1989) conducted a study in Russia which specifically targeted repeated directed motion events. By asking native speakers to complete grammaticality judgment tests, Grenoble (ibid) found that often there was considerable variation among individual participants regarding which verb – uni- or non-unidirectional – to choose. Additionally, she found that in certain environments participants deemed both types of verbs equally acceptable. Grenoble (ibid.), Slonek & Oliverius (1971), and Foote (1967) maintain that speakers have a choice in their expression of habitual motion events and that such choice is contextually and
discursively grounded in terms of both temporal and spatial specifications. Textbooks and grammars rely on examples which do not exceed one sentence and, thus, cannot fully illustrate what factors might influence a speaker’s choice, or even that the speakers do have a choice in deciding how to frame a motion event. The respectable grammar sources which form the bases of textbook explanations (i.e. Isachenko, 1960; Vinogradov, 1972; Vinogradov et al., 1960) were not originally intended as pedagogical materials, hence the brief illustrative examples. Grenoble’s (1989) research convincingly demonstrates that there is a need for a shift from relying on theoretical grammars to discourse-based contextualized investigations for both pedagogical explanations and rule formulation.

The use of non-unidirectional verbs to denote repeated motion events is closely connected to their meaning referred to by grammarians as “the ability to carry out an action”, “the capacity to perform an action in a particular way”, “the knowledge of how to perform an action” (Vinogradov et al. 1960; Wade, 2000; Mahota, 1996). Foote’s heading for such uses of non-unidirectional verbs is “the action itself, not seen in application to any particular journey or line of movement” (p.22). Thus, non-unidirectional verbs can be expressed to describe motion events in which the idea of directionality is completely absent, i.e. motion cannot be imagined along any specific trajectory at all. Hence, the use of such terms as ‘non-actual’, and ‘non-contextual’ to refer to non-unidirectional VoM, e.g. (from Foote, ibid., p.28)

17) Ia liubliu samolety...Ia khochu letat’.
‘I love airplanes. I want to fly.’

In the cases above motion descriptions signify non-dynamic actions, and in Foote’s (ibid.) view, not even an action, but rather a function. Parallels to this usage are found in English as well, e.g. She goes to school (i.e. she is a student) or He drives a truck (i.e. he
To conclude, it is not surprising that VoM are included as a topic for pedagogical instruction in every Russian textbook for L2 learners: in addition to encoding very specific information about directedness of motion in space (unidirectional vs. non-unidirectional) and time (actual vs. non-actual motion), they refer to very frequent types of motion (i.e. motion on foot, motion by vehicle, flying, swimming, running, etc.). It is unfortunate that these verbs have not been described in the typological work in the North American context.

Although theoretical linguists have identified the semantic nuclei of both groups, textbooks for L2 learners still rely on the approach in which different contexts of VoM use are enumerated rather than explained based on the conceptual core meanings of the verbs. The work of Slavic linguists also suggests that the choice of uni- vs. non-unidirectionality is determined by the context and speaker perspective in terms of directionality, temporality, and aspectuality. Unfortunately, a contextually fluid approach to interpreting the use of VoM is lacking from these textbooks. Chapters 7 of this dissertation builds on the discussion in this section and the analysis of RL2 learner data (Chapter 6) in providing recommendations for presenting directionality in a more comprehensive and a flexible way which is grounded in context and speaker perspective on motion events.

3.3.1.3. Manner of motion in Russian

Instructional materials for teachers and learners of L2 Russian have traditionally placed the closed category of the (non)-unidirectional verbs in the pedagogical spotlight in discussions of the semantic domain of motion. However, this approach does not do
justice to the richness of verbal lexicon for describing motion events in Russian. A review of the lexicographic research reveals that the semantic domain of motion in Russian is saturated with verbs that encode various aspects of motion events, be they manner, directionality, or other idiosyncratic and culturally-relevant nuances of motion.

In fact, the expression of motion and spatial meanings is believed to be a particularly important semantic domain for speakers of Russian (cf. see volumes by Arutiunova & Shatunovskii, 1999; Arutiunova & Levontina, 2000). The idea that the Russian national character has been shaped by Russian geographical spaces has been expressed numerous times by philosophers and writers:

“Each landscape, [...] undoubtedly, gives birth to the people’s communal feeling. With its contours it strongly influences the moral being of a man, becomes uniquely seeded in his soul and contributes to the development of his character, his mood, his worldview. That is why the feeling of the limitless space [prostor], unbounded free range [ravninnost’], is a typical feature of the collective mind of the Russian people.” (Shmurlo, 1924, cited in Levontina & Shmelev, 2005b, p.64, my translation).

The very word prostor that is typically translated into English as ‘space’ is one of the key concepts attributed to the Russian national character and worldview; the word does not have a translation equivalent in other languages due to its unique connotational architecture which includes such ideas as limitlessness, boundlessness, lack of restraint, internal striving to break free, freshness, and source of joy, among others (Levontina & Shmelev, 2005a). It is only natural to expect, therefore, that the Russian language would boast an impressive lexical-syntactic repertoire of the means to express how spaces are crossed.

Slavic lexicologists report that the inventory of lexical means for expressing

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1 Nouns that included similar culturally-relevant associations in Russian are equally difficult to translate are razdol’ e, privol’ e, shirota, dal’, volia, gulianie, razmakh, udal’.
dynamic events is extremely rich and varied in the Russian language (cf. Arutiunova, 1999). Rakhilina (2004, p.1) describes the system of Russian verbs of motion as “notoriously complex and [containing] a considerable number of non-derived verbs specifying manner of motion.” In accordance with the European theoretical school, Rakhilina (ibid.) identifies Russian as a “classifying language”, because it allows for a varied range of lexical options for expressing various nuances of movement depending on such parameters as type of subject or manner of motion. Russian VoM classify situations of movement according to their intrinsic features such as, for example, moving on foot, moving by vehicle, moving in a non-natural way because of an obstacle in front/on the path of the subject, aquamotion, and so on. Different lexical means are used to describe movement of a car, a bird, a snake, or a horse (i.e. ekhat’ ‘drive’, letet’ ‘fly’, polzti ‘crawl’, ‘skakat’ ‘gallop’). Russian appears to be more stringent in encoding these differences than other manner-rich languages including English, e.g. consider the following example where a generic verb idti ‘go’ would be ungrammatical in Russian but appropriate (even though somewhat odd) in English:

18) Zolotaja rybka plyvet [*idet] k stariku.  
[Golden fish swims goes [*goes] to old man.]  
‘The goldfish is coming to the old man.’ (Rakhilina, 2004, p.7).

Similarly, in English one could say that snakes go away, birds come down, airplanes can run off the runway, cars go fast, etc. The use of Russian verb idti ‘go’ - which typically refers to motion on foot - in these contexts is ungrammatical. It is possible to use idti in a general sense of directed motion to describe a fixed itinerary of

\[\text{1 In the European typological literature “classifying” languages like Russian are contrasted with “unitary” languages like French which are described as using “generalized” verbs of motion (Rakhilina, 2004; also Gak, 1988; Guiraud-Weber, 1992).}\]
some vehicles (Mahota, 1996; Rakhilina, 2004), but still \textit{idti} has a more specific meaning and is used in a more limited number of contexts than English \textit{go}. As discussed in the previous section, \textit{idti} is a unidirectional VoM and as such encodes specific information about directionality of motion and forms an opposition with the verb \textit{khodit’} which is also translated into English as ‘go’ but encodes different locomotion-related nuances. Zalizniak (2005) maintains that in fact there is \textit{not a single generic verb of motion} in Russian that is stylistically neutral and that denotes an unspecified type of locomotion. Even verbs like \textit{dvigat’ sia} ‘move’ and \textit{peremeshchat’ sia} ‘move / shift’ are not generic because they are used in a limited contexts only, and the latter refers to abstract motion events and rarely to describe physical motion of people (Rakhilina, 2004).

Levontina & Shmelev (2005b) focus on the variety of the lexical means to describe locomotion on foot in Russian and comment on the “astonishing” number of commonly used motion verbs to describe this type of movement, including \textit{idti} ‘go’, \textit{brodit’} ‘wander’, \textit{bresti} ‘toil/drag oneself along’, \textit{plestis’} ‘trudge/toil along’, \textit{tashchit’ sia} ‘drag oneself along’, \textit{proitis’} ‘walk past somebody, often showing off’, \textit{prokhashivat’ sia} ‘stroll up and down; stroll’, \textit{pokhazhivat’} ‘frequently visit some place’, \textit{shliat’ sia} ‘gad / loaf about’, \textit{shatat’ sia} ‘gad / loaf about’, \textit{sloniat’ sia} ‘loiter about’, \textit{shagnut’/shagat’} ‘step’, \textit{marshirovat’} ‘march’, \textit{vyshagivat’} ‘pace’, \textit{stupit’/stupat’} ‘step carefully’, \textit{shestvovat’} ‘proceed, march proudly’, \textit{kovyliat’} ‘hobble; toddler’, \textit{semenit’} ‘mince along’, \textit{topat’} ‘stamp’, \textit{raskhazhivat’} ‘walk/strut about’, \textit{razgulivat’ sia} ‘walk/ stroll insatiably; debauch’, \textit{guliat’} ‘walk/ stroll’, \textit{progulivat’ sia} ‘have a leisurely stroll/walk’, \textit{proshvyrnut’ sia} ‘quickly run on an errand’, \textit{krast’ sia} ‘slink / sneak’ (p.76). This list is not exhaustive and does not include the vocabulary of lower registers as well as other
semantic domains involving motion on foot, i.e. moving up and down, moving in a circle, along paths with barriers and obstacles, along or without roads, aquamotion, and quick motion on foot (e.g. *begat* – *bezhat* ‘run [uni-non]’, *gnat’sia* - *goniat’sia* ‘race [uni-non]’, *nestis’* - *nosit’sia* ‘dash [uni-non]’, *mchat’sia* ‘rush, speed’, *toropit’sia* ‘rush’, etc.) (cf. volumes by Aruiutinova & Shatunovskii, 1999; Aruiutinova & Levontina, 1999).

The review of Slavic lexicological literature suggests that Russian manner verbs can encode a very wide range of meanings. Thus, just in reference to the verbs indicating motion on foot (listed above), Levontina & Shmelev (2005b) discuss such semantic features as

- type of locomotion (on foot or not);
- subject (human, animal, artifact, etc.);
- +/- destination and goal of movement;
- +/- change of location (e.g. *topat* ‘stamp’ vs. *shagat* ‘march (forward)’)
- subjective vs. objective interpretation of movement (*marshirovat* ‘march’ is directly observable while *shliatsia* roughly translated as ‘gad’ or ‘loaf around’ is rooted in the speaker’s interpretation of motion);
- visual image that they evoke (manner of motion, i.e. fast as in *proshvyrnut’sia* quickly run an errand’; with pride and an air of importance as in *shestvovat* ‘proceed, march proudly’, etc.);
- and directedness in space ((non)-unidirectionality).

Motion verbs from other semantic domains can encode yet other aspects related to movement. For example, Rakhilina (2004) discusses Russian verbs of circular motion *krutit*(sia), *vertet*(sia), *vrashchat*(sia), *kruzhit*(sia) which can be roughly translated...
into English as ‘spin’ or ‘rotate’. She points out that for these verbs some of the differentiating semantic characteristics include

- +/- controlled motion
- +/- orientator, i.e. objects above which or next to which the circular motion event unfolds
- +/- reflexive / non-reflexive motion
- +/- speed of motion
- +/- uniform motion/velocity.

Russian is characterized by the specificity of vocabulary for encoding the type of transportation. Thus, Russian is much more stringent than English in encoding the distinction between going somewhere on foot and going somewhere by vehicle, particularly in the contexts where the use of a vehicle is implied by the length of the trip such as going from one city to another or traveling abroad (Lubensky et al., 2001). For example, in English it is possible to say I went to England last summer, in Russian verbs idti / khodit’ ‘go’ are unacceptable and a verb ezdit’ ‘drive/ride a vehicle’ would be necessary. Additionally, when the type of a vehicle is mentioned (e.g. an airplane, train, or ship), specific corresponding motion verbs must be used such as letat’ ‘fly’, ezdit ‘drive/ride’, or plyt ‘swim/sail’. English expressions of the type to go by car/plane/boat are therefore an oxymoron in Russian.

Similarly, it has been noted that Russian has specific lexical means for expressing motion events which encode displacement. Russian has no verb as general as the English verb put. Instead, such verbs as stavit’ ‘to place standing up’, klast’ ‘to place lying down’,

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1 The use of the verbs idti [uni.] and khodit’ ‘go’ is permitted in some contexts related to driving, especially related to movement of vehicles on schedule, e.g. Avtobusy khodiat po grafiku ‘Buses run on schedule’. 
and *veshat* ‘to place hanging up’ must be used. Thus, the speaker has to differentiate between placing something vertically, i.e. in a standing position (e.g. a vase, a box, or anything that has a base, even a plate) and something without a base that is placed vertically, i.e. lying down without a base (e.g. food on a plate, pen, book, etc.) (Lubensky, 2001; Rifkin, 1996; Rosengrant & Lifschitz; 1996). In this case a choice of a motion verb depends not on a manner of movement per se but also on the position that a placed object assumes in space: some objects can be placed standing up or lying down (e.g. a book on a shelf). Moreover, if an object was hung, this information also has to be conveyed through the verb *veshat* in the absence of a general verb like *put* in English. Thus, compare:

19) *Kuda ty polozhila moiu knigu?* ‘Where did you **put** [by lying down] my book?’

20) *Kuda postavit’ vazu?* ‘Where should I **put** [by standing up] the vase?’

Russian also differs from English in that it lacks a general verb for denoting conveyance of an object or a person such as *take* or *bring* in English. Instead, more detailed motion verbs are employed in Russian pertaining to the specifics of how a moving agent transports an object or a person. Such VoM as *nesti/nosit’* ‘carry’, *vezti/vozit’* ‘drive’, *vesti/vodit’* ‘take on foot’ or ‘lead’ are used in the contexts in which *take* or *bring somebody /something* might be found in English, e.g.:

21) *John is taking me to the airport.* [John is driving me to the airport.]

   vs. John *vezet menia v aeroport.*

Also compare:

22) *Nina brought the child over.* [Nina drove the child over.]

   vs. Nina *privezla rebenka.*

   vs. Nina *privela* rebenka [Nina brought the child over on foot.]
Rubinstein (2006) draws attention to the fact that not all motion events in Russian are rendered through motion verbs, but that there is also a class of deverbal motion nouns which are derived from motion verbs. Rubinstein observed that motion nouns do not necessarily inherit the exact semantics of the verbs from which they are derived. In fact, several motion nouns can be derived from one verb and not be absolute synonyms, e.g. *beg, begstvo, began’e, and begotnia* derived from the verb *begat* ‘run’, can all share one basic sense of “quick locomotion of certain living creatures (humans and animals) on a hard surface in a certain direction” (p. 5). At the same time, the first two nouns express unidirectional motion, while the other two express undirected, chaotic motion. *Begotnia* is differentiated by a different register (conversational) and intensity; it also presupposes noise, e.g. consider

*Preimushchestva kartochki ia v pervye po-nastoyashchemu otsenil, kogda v prednovogodnei begotne poterjali koshelek s den’gami i kartochkoi.* (from ruscorpora.ru)

‘I started to appreciate the benefits of having a [credit] card, when in the hustle and bustle [lit.: in the running] before the New Year I lost my valet with money and the card.’

*Begstvo* differs because of, as Rubinstein (ibid.) argues, the inherent sense of the source of motion (which the other derivatives acquire by the context). *Begstvo* is also motivated by a special reason such as a desire for safety, e.g.

*Voobshche vsia moia zhizn’ – eto podsoznatel’nnoe begstvo.* (from ruscorpora.ru)

‘In general all my life is unconscious escapism [lit.: running].’

In short, motion nouns in Russian further diversify the range of lexicon for encoding
motion manner: even related syntactic derivatives are not mutually interchangeable semantically and stylistically and go beyond the semantics of the verb that they are derived from.

Cultural factors have been suggested to play a role in terms of how motion events are classified in Russian in contrast to other languages. Thus, Levontina & Shmelev (2005b) note that European languages vary in terms of which/how many types of motion on foot they express. They argue that this group of VoM is characterized by a particularly high degree of variability among languages and frequently reflects the “key” motion concepts idiosyncratic to the worldview of the nations speaking these languages (see their discussion of French flâner ‘≈saunter, hang about’, se promener ‘≈walk’, and s’endimancher ‘≈to put on one’s Sunday best’ and German verbs bummeln ‘≈wander, dawdle around’ and spazieren ‘≈walk, stroll’ (ibid.)). Chaput (1997) argues that the system of Russian VoM reflects ethnic attitudes towards movement through space, boundary-crossing, and territorial passage. She particularly focuses on the ability of Russian verbs to encode unidirectionality of motion and cites a number of Russian rituals in which boundary crossing trips are inherently one-way (cf. Moyle, 1989). Chaput (ibid, p.412) draws the following conclusion upon reflecting on the cultural influences in the Russian language:

[T]he identification of evidence marking one-way trips as special makes the existence of a whole set of verbs for one-way motion much less surprising. In fact, one might conclude that the absence of a special verb for this kind of motion, so essential to distinguish from other kinds of motion, might be cause for surprise.

In short, the Russian verbal lexicon is rich and varied in the domain of motion, with some lexical items not always parallel and sometimes hard to render in English. Without conducting a comparative corpus-based investigation, it is difficult to compare
the two languages in terms of the size of manner-of-motion lexicon, as well as in terms of frequency and the degree to which manner distinctions are made habitually in speech. In the very least, the available lexicographic research indicates that, manner is a highly salient and important domain for speakers of Russian. Additionally, Russian manner verbs can encode a concept of directionality in space as it correlates with the timeframe during which motion events unfold: the opposition of unidirectionality vs. non-unidirectionality of motion is not only lexically possible and culturally relevant (as Chaput, 1997 argues) in Russian, but is also grammatically obligatory for a number of motion types. In the following section I will focus on how path of motion is expressed in Russian.

3.3.2. Path and ground in Russian

3.3.2.1. Spatial prefixes

A number of lexicologists agree that description of motion path in Russian has cultural significance. Thus, Arutiunova (1999) writes:

For our country [...] the notions of road and path play an unusually great role (much greater than in other European cultures) in terms of semantics, metaphorism, symbolism, creative writing. They [these notions] define the very way of thinking about life and the man. One could even argue that PATH is a sort of saving anchor which is thrown to the man in a raging ocean of nature forces and chaos. [...] It [path] is as important in thinking about creating transportation routes as it is for moving along the roads of life (p.25, my translation).

As discussed in Chapter 2, within the line of typological work proposed by Talmy, the Russian language is described as expressing path through prefixes-satellites. In the Slavic research literature, the role of prefixes in encoding spatial meanings and their interaction with the semantics of VoM are widely acknowledged (e.g. Cienki, 1989;
Eckert, 1991; Janda, 1984, 1988; Klenin, 1983; Israeli, 2002; Shull, 2001; Titelbaum, 1990; Whibley, 1982). Murav’eva (2006) argues that learners’ ability to use the VoM appropriately depends on their understanding of the principal meaning of prefixes and their familiarity with how the nuances of the prefixes, lexemes and context interact with each other. Textbooks introduce anywhere from 2-15 different spatial prefixes (see Mahota, 1996; Murav’eva, 2006; Skvortsova, 2005; Stilman, 1951 for the most comprehensive coverage) that are commonly used to derive new verbs (motion and non-motion) from the fourteen pairs of the unprefixed VoM, e.g. compare derivation of new verbs from the verb *idti* ‘go’ and rough translations into English:

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Verb</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>po-</em></td>
<td><em>poiti</em></td>
<td>‘set off’</td>
</tr>
<tr>
<td><em>pod-</em></td>
<td><em>podoiti</em></td>
<td>‘approach’, ‘come up’</td>
</tr>
<tr>
<td><em>s-</em></td>
<td><em>soiti</em></td>
<td>‘descend’</td>
</tr>
<tr>
<td><em>pri-</em></td>
<td><em>priiti</em></td>
<td>‘arrive’</td>
</tr>
<tr>
<td><em>oto-</em></td>
<td><em>otoiti</em></td>
<td>‘step aside’</td>
</tr>
<tr>
<td><em>u-</em></td>
<td><em>uiti</em></td>
<td>‘leave’</td>
</tr>
<tr>
<td><em>vy-</em></td>
<td><em>vyiti</em></td>
<td>‘step out’</td>
</tr>
<tr>
<td><em>v-</em></td>
<td><em>voiti</em></td>
<td>‘come in’</td>
</tr>
<tr>
<td>+ <em>idti</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>za-</em></td>
<td><em>zaiti</em></td>
<td>‘go behind’</td>
</tr>
<tr>
<td><em>vz-</em></td>
<td><em>vzoiti</em></td>
<td>‘ascend’</td>
</tr>
<tr>
<td><em>pro-</em></td>
<td><em>proiti</em></td>
<td>‘cover (distance)’</td>
</tr>
<tr>
<td><em>do-</em></td>
<td><em>doiti</em></td>
<td>‘reach (a destination)’</td>
</tr>
<tr>
<td><em>pere-</em></td>
<td><em>pereiti</em></td>
<td>‘cross’</td>
</tr>
<tr>
<td><em>ob-</em></td>
<td><em>boiti</em></td>
<td>‘go around; pass’</td>
</tr>
<tr>
<td>*s- + -s’</td>
<td><em>soitis</em></td>
<td>‘meet; coincide’</td>
</tr>
<tr>
<td><em>na-</em></td>
<td><em>naiti</em></td>
<td>‘find’</td>
</tr>
<tr>
<td>*na- + -s’</td>
<td><em>naitis</em></td>
<td>‘think up a smart answer’</td>
</tr>
<tr>
<td>*raz- + -s’</td>
<td><em>razoitis</em></td>
<td>‘disperse’</td>
</tr>
</tbody>
</table>

Prefixes are important elements in Russian word formation. According to Wade (2000), up to sixteen prefixes can attach to certain verb roots with each prefix imparting a different spatial meaning. Among motion verbs, the class of the directional verbs appears
to be particularly apt to combine with various prefixes. Launer (1987) calculated how many prefixed perfective verbs can be derived from non-unidirectional VoM only and counted no fewer than 160 of them.

Meanings of some spatial prefixes in Russian are fairly straightforward (i.e. ob- ‘around’, pere- ‘over’) but distinctions among the meanings of many other prefixes are rather challenging to grasp. For example, consider the following diagrammatic representations which are supposed to illustrate the semantics of several prefixes roughly encoding the concept of ‘arrival’ (the diagrams and examples are borrowed from Mahota, 1996, p. 62-63):

\textit{v-}: INTO/ENTRY

\begin{center}
\begin{tikzpicture}
\node (p) at (0,0) {\textbf{\vbox to 0pt{}\vfill}}; \node (q) at (0,-1) {\textbf{\vbox to 0pt{}\vfill}}; \draw[->] (p) -- (q); \end{tikzpicture}
\end{center}

\textit{e.g.} \textit{voiti/ vkhodit’ v dom} ‘enter the house’

\textit{pri-}: ARRIVAL

\begin{center}
\begin{tikzpicture}
\node (p) at (0,0) {\textbf{\vbox to 0pt{}\vfill}}; \node (q) at (0,-1) {\textbf{\vbox to 0pt{}\vfill}}; \draw[->] (p) -- (q); \end{tikzpicture}
\end{center}

\textit{e.g.} \textit{priiti/ prikhodit’ na rabotu} ‘arrive at work’

\textit{pod-}: APPROACHING

\begin{center}
\begin{tikzpicture}
\node (p) at (0,0) {\textbf{\vbox to 0pt{}\vfill}}; \node (q) at (0,-1) {\textbf{\vbox to 0pt{}\vfill}}; \draw[->] (p) -- (q); \end{tikzpicture}
\end{center}

\textit{e.g.} \textit{podoiti/podkhodit’ k domu} ‘approach/ walk up to the house’

\textit{do-}: MOTION AS FAR AS; UP TO A CERTAIN POINT; REACHING A DESTINATION

\begin{center}
\begin{tikzpicture}
\node (p) at (0,0) {\textbf{\vbox to 0pt{}\vfill}}; \node (q) at (0,-1) {\textbf{\vbox to 0pt{}\vfill}}; \draw[->] (p) -- (q); \end{tikzpicture}
\end{center}

\textit{e.g.} \textit{doiti/ dokhodit’ do ugla} ‘go as far as the corner’

While all of the above prefixes express different spatial meanings, they are closely related
and make the choice of an appropriate prefix a daunting task for L2 learners.

Similarly, prefixes *u-, vy-, ot-* all generally impart the general meaning of ‘away (from)’, but they are not interchangeable and encode varying spatial nuances. For example, *u-* signifies “leaving”, *vy-* is used to refer to “motion out of an enclosed space; crossing the threshold” and also “departure of a person for a short while”, and *ot-* means “to move away for a short distance” (Mahota, 1996; Murav’eva, 2006). The choice of a prefix depends upon the speaker’s interpretation of a motion event and imparts varying implications. For example, in the physical event of Person A crossing the threshold of a room, an observer of this motion event could say that A

1) *ushel*;
2) *vyshel*;
3) *otoshel*,
4) *voshel*;
5) *poshel*.

In the first case, *ushel* would be used if the speaker thinks that A has left and is not planning to come back for a while. In the second case, *vyshel* would signify that A has stepped out (but there is no finality; A will come back). Finally, *otoshel* doesn’t involve boundary crossing, i.e. the use of prefix *ot-* would show that in the speaker’s perception, A has stepped away, i.e. he is in the physical proximity, hence, will be back. While *ushel*, *vyshel*, and *otoshel* all roughly encode the concept of motion ‘away’, one could also say that A entered the other room (i.e. shift the focus on entering the new space as opposed to moving away from the confines of the previous room). Yet another possibility would be to say that A *poshel* “set off on a trip somewhere”, which would highlight the fact that A
has initiated a new motion event. Hence, there is no single appropriate prefix and the choice is motivated by the context and speaker perspective. In spite of this, textbooks and pedagogical materials tend to present the semantics of prefixes as fixed; they overcompensate by providing an overwhelming number of contextual clues that are believed to motivate the use of a prefix. As a result, the central meaning of a prefix is completely lost. For instance, when Murav’eva (2006, p. 250) explains the semantics of the prefix *vy*-, she specifies that it is used when

- movement out of something is expressed, and the agent is in the vicinity of the room he has just left;
- departure of a person for a short while is meant;
- departure from within an area is expressed and the object previously hidden by something is caught sight of by the moving agent;
- the urgency of departure is implied and the context contains the words *militsiia* ‘police’, *sud* ‘court’, *sledovatel’* ‘investigator’, *komissiia* ‘commission’;
- when the movement denoted by the verbs with prefix *vy*- involves a great many individuals and occurs at definite times, such as summer holidays, or in times of natural calamities;
- a departure from a previous residence is expressed in official documents, e.g. replies to inquiries.

While the first two contexts mentioned by Murav’eva (ibid.) seem relevant for providing an explanation of the meaning of *vy*-, the remainder of the “explanations” are non-central to the semantics of the prefix and make this explanation overly detailed and confusing. Murav’eva’s (ibid., p.251) presentation of the prefix *u*- is also difficult to process: she
suggest that \textit{u-} signifies

- absence of a person, but the movement of the agent doesn’t necessarily imply motion from within a room, house, etc.;
- intended departure;
- and departure up to the moment of complete disappearance.

It is difficult to understand the concept that \textit{u-} imparts based on this explanation, as the meanings highlighted are not well defined, and the central meaning of the prefix is not presented. It would also help if textbooks used contextualized examples, but most of the time when examples are provided, they are limited to one sentence; therefore, they are not conducive to the inclusion of the speaker perspective or to assessing the importance of this perspective for choosing an appropriate prefix.

3.3.3.2. Prepositional phrases and case marking

Prefixes are not the only means for encoding path in Russian. The sole emphasis on prefixes for encoding the path of motion in Russian paints an incomplete picture of how the path of motion is encoded. Section 3.3.2 already addressed the class of manner verbs in Russian that can also encode directionality. Additionally, prepositional phrases can be used to specify path of motion and to locate it in relation to a ground.

Textbooks for L2 learners of Russian provide up to fourteen different spatial prepositions, depending on the targeted proficiency level. In most cases, information on spatial prepositions is scattered throughout chapters; the topic is typically tied to the practice of \textit{case endings} rather than the semantic domain of motion. This is because prepositions in Russian assign case to nouns in the prepositional phrase, and the same
prepositions can assign different cases based on whether a location or direction of motion is expressed. The meanings of prepositions are not static and depend on the semantic role of the overall locative argument. For example, consider how the meaning of the preposition\(^1\) \(v\) changes based on the role of the argument:

\[
\begin{align*}
23) & \textit{Deti, khodiat [non-uni]} \quad \textit{v} \quad \textit{shkolu}. \\
& \text{‘Children go to [goal] school [acc.]’}
\end{align*}
\]

\[
\begin{align*}
24) & \textit{Deti, ne begaiut [non-uni]} \quad \textit{v} \quad \textit{shkole}. \\
& \text{‘Children do not run at [location] school [prep.]’}
\end{align*}
\]

In (23), the preposition \(v\) is used to introduce the goal of motion, i.e. it is a directional prefix, while in (24) \(v\) locates the motion event. This is true of other prepositions as well; consider Table 4 below which summarizes the meanings that some other spatial prepositions can encode in Russian based on their locative roles (from Mahota, 1996, p.34):

<table>
<thead>
<tr>
<th>Goal</th>
<th>Location</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>entering the confines of (v + \text{acc.}) (v\ \textit{shkolu} ) ‘to school’</td>
<td>inside of (v + \text{prep.}) (v\ \textit{shkol’tat} ) ‘at school’</td>
<td>from inside, from within iz + \text{gen.}) iz shkoly ‘from school’</td>
</tr>
<tr>
<td>events, special nouns, onto (na + \text{acc.}) (na\ \textit{sobranie} ) ‘to the meeting’</td>
<td>at events, on something (na + \text{prep.}) (na\ \textit{sobranii} ) ‘at the meeting’</td>
<td>from, off, from an event s + \text{gen.}) s sobrania ‘from the meeting’</td>
</tr>
<tr>
<td>motion behind (za + \text{acc.}) (za\ \textit{stol} ) ‘at the table’</td>
<td>location behind (za + \text{instr.}) (za\ \textit{stolom} ) ‘at the table’</td>
<td>motion from behind iz-za + \text{gen.}) iz-za ‘from the table’</td>
</tr>
<tr>
<td>motion under (pod + \text{acc.}) (pod\ \textit{stol} ) ‘under the table’</td>
<td>location under (pod + \text{instr.}) (pod\ \textit{stolum} ) ‘under the table’</td>
<td>from under iz-pod + \text{gen.}) iz-pod stola ‘from under the table’</td>
</tr>
<tr>
<td>toward, in the direction of people – “going to see” (k + \text{dat.}) (k\ \textit{Ivanu} ) ‘to visit Ivan’</td>
<td>at someone’s house, place (u + \text{gen.}) (u\ \textit{Ivana} ) ‘at Ivan’s’</td>
<td>from someone’s house, place ot + \text{gen.}) ot Ivana ‘from Ivan’s’</td>
</tr>
</tbody>
</table>

\(^1\) In both cases, \(v\) is a preposition. In terms of its role (path satellite or a ground preposition), it serves both roles – it determines the path of motion and locates the figure in relationship to ground.
Counter intuitively, prepositions are typically introduced separately from the topic of VoM in textbooks, even though some pedagogical sources do point out that the semantic correlation between the prefix and the preposition is not random: not all prefixes can combine with all prepositions (e.g. Murav’eva, 2006). Murav’eva (ibid.) offers a table at the end of her volume on VoM in which she enumerates combinatorial possibilities of prefixes and prepositions, e.g. consider the combinatorial potential of the prefix *u*- (p. 248):

\[
\begin{aligned}
\text{u-} & \quad \begin{cases} 
\text{iz} & \text{gen.} \\
\text{s} & \\
\text{ot} & \text{dat.} \\
\text{k} & \\
\text{v} & \text{acc.} \\
\text{na} & 
\end{cases}
\end{aligned}
\]

Unfortunately, Murav’eva (2006) doesn’t explain why the semantics of prefixes and prepositions allows or disallows certain combinatorial possibilities, and the focus of the exercises in her textbook (as well as in others) is never explicitly on prefix-preposition combinations. This might be due to the fact that comprehensive descriptions of the semantics of prefixes and prepositions in Russian are lacking.

In some cases, the preposition is believed to duplicate the meaning of the prefix (e.g. *vbezhat’ v dom* ‘run [in-run] into the house’, or *otoiti ot stola* ‘step [away-step] away from the table’), i.e. the meaning of the prefix and the preposition may be synonymous (Vinogradov, 1947). In such cases, prepositions may be omitted if the information contained in the prepositional phrase (i.e. ground object) is otherwise available from the context. But this is not the case with most verbs. In fact, the semantics of a prefix and a preposition may be different even when the two are etymologically related. For example,
the homonymous prefix *na-* and the preposition *na* are often translated as ‘on’ in textbooks; however, the preposition *na* renders movement on the surface of an object, while verbs with the prefix *na-* can also express some sort of collision with an object, often at high speed (e.g. *naletet’ na derevo* ‘crash [in-fly] into a tree’) (Kniazev, 1999).

For learners of Russian it is important to realize that a combination of a prefix and a preposition may be required even when a preposition or a satellite alone is used in English to convey path, e.g. consider

25) *He jumped over the fence.* vs. *On pereprygnul cherez zabor.*
[He over-jumped over fence]

26) *I went around the house.* vs. *Ya oboshla vokrug doma.*
[I around-went around house].

27) *We walked through the forest.* vs. *My proshli cherez les.*
[We through-went through forest]

28) *The dog came up to her.* vs. *Sobaka podoshla k nei.*
[Dog approach-went to her]

Thus, the combination of prefixes, prepositions, and case marking (a result of prepositional case government) creates a lexicalization pattern in Russian which encodes path and locates the figure in relation to ground in a seamless manner. The strong bond between a satellite and a preposition is also determined by Russian morphosyntax: only one satellite-prefix can be attached to a verb. This means that the scope of the newly derived prefixed verb is rather limited in terms of the number of prepositional phrases segmenting path that it can encompass. Slobin (2003b) reports that 76% of Slavic participants in his study used 3 path segments with one verb, as in *iz-Za kamnia olen’ wyskochil* ‘from-behind a rock a deer jumped out [out-jumped]’ (p.237). In this example a complex preposition is considered as two path elements (‘from’ and ‘behind’) and a
prefix ‘out’ is considered as another path segment. Considering that satellites can combine with a limited number of prepositions in Russian, it is difficult to imagine that more than two prepositional phrases with spatial meaning would be associated with one prefixed VoM; however, corpus research is needed to attest how frequently multiple path segments are in found in Russian across different discourse genres. However, because satellites are not stackable and form close semantic bonds with prepositional phrases, Russian speakers need to use separate prefixed verbs with different satellites to provide path descriptions that are as elaborate and granular as can be formed in English from combinations of a single verb and stacked\(^1\) path segments.

The choice of a prefix and the following prepositional phrase in Russian depends on their mutual combinatorial potential, but also on the semantics of ground. Kniazev (1999) argues that the choice of a prefix in Russian is often determined by the relation of the figure and spatial properties of the ground object. For instance, prefix v- ‘in’ is used to indicate motion from open space into more enclosed space, and prefix vy- ‘out’, vice versa, renders relocation from enclosed to more open space (that’s why in Russian one can *vbezhat’ iz sada v gostinuiu ‘run into* the living-room from the garden’ but not *vybezhat’ iz sada v gostinuyu ‘run out of the garden into the living-room’).

Close interaction of path and ground elements also stands out in the semantics of the prefix pri- which signals ‘arrival’. As Kniazev (1999) and Ferm (1990) argue, pri-locates motion in relation to “mentally-constructed” ground rather than to “objectively” real space. For example, Ferm (ibid.) compares such sentences as *On voshel v shkolu* ‘He entered [in-went] the school’ and *On prishel v shkolu* ‘He came [arrival-went] to school’

---

\(^1\) In English path segments are not stackable when the main verb is borrowed from a V-framed language such as Latin (e.g. exit, enter, or ascend). The verb root contains specific information about path and/or boundary crossing and, thus, limits the number and the type of path segments that can follow.
and points out that in the first case, we know that the person is at school (i.e. inside the building), while in the second case, the person can be in the yard or near the fence around the school depending on the speaker’s perspective: the prefix pri- is therefore used when the goal has been reached in relationship to the speaker’s mental space. That explains why the English sentence *The train is arriving at the station* cannot be rendered by a Russian verb in the present tense with the prefix pri- *Poezd prikhodit k stantsii:* the meaning of pri- correlates the semantics of path with an abstract ground, and therefore cannot refer to an *actually occurring* motion event. Prefixed verbs with pri- thus interact with non-physical ground elements (e.g. social events, abstract notions); such verbs are frequently used to refer to non-physical goals, e.g. *prikhodit’ v gosti* ‘come for a visit’, *prikhodit’ na rabotu* ‘come to work’, *prikhodit’ na den’ rozhdeniia* ‘come to a birthday party’. On the other hand, prefixes typically bound to physical ground objects (e.g. v- and pod-) are not used in the same contexts, e.g. *On voshel/ podoshel v gosti / na rabotu/ na den’ rozhdeniia* ‘He arrived for a visit/to work/to a birthday party’. Note that in English, it is possible to use the verb *arrive* in reference to a birthday party (abstract ground) or station (physical ground); thus, this interaction between the semantics of ground and satellite appears to be unique to Russian, at least in the context of the satellites which expresses the concept of “arrival”.

The question of how path is encoded in Russian needs to be addressed from a perspective that is different from that adopted in pedagogical materials today (i.e. presentation of prefixes and prepositions as unrelated elements). To account for the combinatorial potential of the path elements, their semantics needs to be described from a conceptual perspective rather than as lists with “rules of thumb”. Tyler & Evans (2001),
however, show that the task of describing the meaning(s) of spatial prepositions in any language is not simple. Their review of research on the English preposition *over* reveals that the existing accounts of its semantics are often too fine-grained to capture the primary sense of *over* (which is similar to the conclusion that could be drawn about the presentation of prefixes in Russian, as discussed in the previous section). Tyler & Evans’ (ibid.) argument is that the lexicon should not be viewed as an arbitrary repository of unrelated lexemes. Drawing on the recent work in cognitive linguistics (e.g. Fauconnier, 1997; Fauconnier & Turner 1998), Tyler & Evans (ibid.) show that to understand the spatial meaning of a preposition, it is necessary to determine the primary sense of the preposition on the one hand, and to account for how conceptualizations of spatial meanings are created on-line to create maximal coherence within sentential context and relevant real-life knowledge. Boldyrev (2000), in his discussion of encoding spatial relations in Russian, similarly argues for taking contextual factors into consideration in the analysis of spatial relations. He (ibid.) maintains that the speaker perspective or mental modeling of spatial relations is as important for expression of motion meanings in a language as the linguistic elements themselves. The review of Russian spatial prefixes seems to suggest that the granularity of meanings they encode allows for a particularly high degree of flexibility in choosing perspective for the description of a motion event. As I discuss in the next section, prefixation in Russian serves yet one more important function in the encoding of motion events: prefixes carry aspectual meanings.

### 3.3.3. Aspectuality in motion descriptions

The expression of motion events in Russian does not only involve the encoding of
path/ground and manner. As discussed in Section 3.3.1, all Russian verbs obligatorily encode aspectual nuances as all verbs belong to the group of perfective or imperfective verbs. Thus, the (non)-unidirectional VoM are all imperfective and are believed to express idiosyncratic aspectual nuances (actual vs. non-actual motion) in addition to their spatial meanings. Aspectual differences play out even more so between unprefixed and prefixed verbs in Russian, and this is also true for VoM. In fact, prefixation plays a very important role in the mechanism of perfectivization in Russian: one of the first rules that L2 learners encounter is that adding a prefix to a verb changes its aspect, even when it is a path prefix with a purely spatial meaning, e.g.

\[ vy- 'out of' + ekhat 'drive [imp.]' = vyekhat 'drive out [pf.].' \]

This means that even when a spatial prefix is added to a VoM, a path verb emerges with renewed semantics - from the point of view of spatial relations on the one hand, and from the point of view of aspectuality, on the other hand (even though perfectivization is a by-product of word formation in such cases (Forsyth, 1970)).

However, some prefixes that combine with VoM have purely aspectual functions and meanings and participate in deriving VoM with special procedural meanings. Such procedural verbs are referred to as “Aktionsarten” or “sposoby glagol’nogo deistviia” and “sovershaemost’” in Russian (e.g. Forsyth, 1970; Isachenko, 1960; Zalizniak & Shmelev, 2000). Their most important characteristic is that they profile some portion of the development of a situation with respect to time and / or intensity (Dickey, 2006). The classic definition of this category was offered by Isachenko (1960):

Under Aktionsart we include those meanings of verbs which, being expressed by formal means (prefixes, suffixes), modify the meaning of the unprefixed or prefixed verbs in relationship to phases, multiplicity or quantity of action, and which are semantically related to it (cited and translated by Le Blanc, 2006, p.1).
It is typical for textbooks for L2 learners to introduce motion Aktionsarten as irregular verbs with anomalous meanings related to motion events, while, in fact, Aktionsarten with diverse procedural meanings can be formed from virtually all verbs and are not limited to the lexemes which encode spatial meanings. Notably, textbooks usually avoid discussing aspectual meanings of VoM to the point that aspectual prefixes are presented as having “special” directional meanings when combined with VoM. In fact, procedural perfectives play an important and distinctive role in the expression of aspectuality in Russian: when procedural prefixes combine with VoM, they derive new VoM that are able to express a variety of nuances related to the development of motion events in time, but also in terms of intensity, frequency, etc.. Aktionsarten can be divided into several categories, which include inchoatives, delimitatives, absorptives, terminatives, resultatives, duratives, comitatives, and totalizing verbs (Forsyth, 1970; Isachenko, 1960; Zalizniak & Shmelev, 2000). Below I will briefly discuss some of the Aktionsarten that are derived from simple VoM.

Inchoatives (also referred to as inceptives) express the beginning of the action and combine with prefixes za-, po-, and u- (Forsyth, 1970). With regard to the VoM, the inchoative verbs are most commonly formed with the prefix po- to indicate the beginning of a motion event (e.g. trip, movement, etc). In the case of the (non)-unidirectional category of VoM, the meaning of ‘setting off for a trip’ is imparted by the procedurals which are derived from the unidirectional verbs, e.g. po- + iditi ‘go’ = poiiti ‘set off by foot’. It is probably due to the fact that po- is the most productive perfectivizing prefix in Russian (Dickey, 2006; cf. Chertkova, 1996) that po- inchoatives derived from unidirectional VoM are often presented in textbooks simply as perfective counterparts of
these verbs with semantically empty prefixes, even though po- inchoatives have
distinctive procedural meaning when combined with motion verbs (i.e. ‘setting off for a
trip’). Inchoatives with non-unidirectional meaning exist as well, e.g. za- +bégat’ ‘run
[non]= zabégat’ ‘start running (chaotically)’. Because of the semantics of non-
unidirectional VoM, po- inchoatives derived from them do not mean ‘setting off for a
trip’ but refer to the beginning of an undirected motion event.

Perfectivizing po- and inchoative po- have been mentioned so far: prefix po- is
polysemous and is used to derive even more types of procedural verbs. Thus, there is also
a delimitative prefix po-. Delimitative verbs place an arbitrary or an indefinite temporal
bound on the activity they encode (Flier, 1985; LeBlanc, 2006), which is often interpreted
as the relative brevity of the situation (Avilova, 1976; Forsyth, 1970), e.g.

‘He walked (a bit) for half an hour’.

Additional procedural meanings of verbs with po- also include comitative (i.e. the
performance of an action as the accompaniment to another action) and frequentative (i.e.
reference to habitual action, almost exclusively related to the past). The variety of all the
meanings of the polysemous po- is quite impressive, but only some motion Aktionsarten
with po- (typically inchoatives) are presented in textbooks. And even when such
procedural VoM are addressed in instructional materials, they are typically discussed as
having irregular meanings within the Russian verbal system, i.e. as anomalous forms to
be memorized.

A number of prefixed VoM with procedural meanings are derived with the help of
prefixes that may also have purely spatial meanings in other contexts. For example,
prefix ot- in its spatial sense signals motion ‘away’, but it can also serve as a terminative
aspectual prefix used to express termination of an action, e.g. \( ot^- + khodit' \) ‘go’ [non.]’ = \( otkhodit' \) means ‘stop going to work’, i.e. ‘retire. Prefix \( iz^- \) which has a spatial meaning ‘out of’ can also encode resultative actions (performance of an action to an exhaustive degree), e.g.

\[
iz + khodit' \quad \text{‘go’ [non.]} \quad = \quad iskhodit' <\text{vsiu stranu}> \quad \text{‘walk across <the whole country>}'
\]

\( Na^- \), which can mean ‘on(to)’, also participates in deriving saturative Aktionsarten as part of a circumfix (combination of \( na^- \) and postfix \( –sia \)), e.g.

\[
na^- + plavat' \quad \text{‘swim [non.]} \quad + \quad -sia = \quad naplavat’sia \quad \text{‘swim for a while until satisfied’}.
\]

Prefixes with completely different spatial meanings can impart almost synonymous procedural nuances, e.g. intensive-resultative procedurals can be formed by adding a circumfix consisting of prefixes \( iz-, \quad do-, \quad raz-, \quad u^- \), or \( vy^- \) and a postfix \( –sia \) to the verb (Zalizniak & Shemelev, 2000). The newly formed Aktionsarten indicate that the action has reached its completion and required intensive effort and high degree of realization of some state,

\[
iz^- + begat’ \quad \text{‘run [non.]} \quad + \quad -sia = izbegat’sia \quad \text{‘run for a long time (until exhaustion’)}; \quad do^- + kopat’ \quad \text{‘dig’} + \quad -sia = dokopat’sia <do istiny> \quad \text{‘dig out <the truth>}'
\]

To conclude, there is an intimidating variety of prefixed procedural VoM in Russian. Textbooks and even reference grammars often prefer to leave out the system of Aktionsarten from the discussions of the Russian verbal system; Aktionsarten derived from VoM are treated the same way. It is understandable why textbook authors shy away from the topic of considering the multiplicity of procedural meanings that Aktionsarten can encode – L2 learners of Russian are often intimidated by the system of spatial prefixation alone. However, because VoM frequently combine with prefixes that are
polysemous (i.e. have spatial and procedural meanings), it is important that learners understand what the differences are among spatial VoM and Aktionsarten – and the semantic differences are profound. It is also misleading for textbooks to present Aktionsarten derived from VoM as having atypical spatial meanings (e.g. as Murav’eva, 2006 and Wade, 2000 approach the topic). Whether L2 learners would benefit from extended explicit presentations of procedural VoM as regular members of the system of Aktionsarten (as opposed to being presented as an irregular list of verbs to be memorized) remains an empirical question. But without doubt it is important for L2 learners to understand the mechanism of encoding spatio-temporal meanings in Russian – both for comprehension and production.

3.3.4. Concluding remarks

The body of research on Russian motion talk within the field of Slavic studies requires ambivalent evaluation. On the one hand, the topic has been carefully studied and described by Russian theoretical linguists for many decades, although the majority of the research efforts have been directed to the study of the small closed category of (non-)unidirectional VoM and their idiosyncratic semantic and structural characteristics. Additionally, in the tradition of Slavic studies, linguistic structures with spatial meanings are not treated as a unified lexicalization pattern for encoding motion events but are typically introduced in separate chapters as disjointed morphosyntactic units, i.e. the focus is on structure rather than on the formulation of form-meaning connections between the linguistic elements and motion concepts that they express.

But the review of research by Slavic specialists – albeit structurally oriented–
provides a thorough description of each of the linguistic elements involved in the encoding of motion events in Russian in terms of morphosyntax, semantics, pedagogical caveats, etc. As such, the body of literature framed by the structural tradition can inform and refine the description of Russian motion talk found in the crosslinguistic typological literature. The reverse is also true: the focus on the unified lexicalization pattern foregrounded in the works of typological linguists (e.g. Talmy, 2000a, 2000b) forms a sound basis for bringing together currently fragmented descriptions of Russian motion talk. Such synthesis was undertaken in Section 3.3 and allowed to identify the pattern for encoding motion in Russian as consisting of

- **verbs** which express manner and often directionality of motion;
- **a combination of spatial prefixes and spatial prepositions** (and associated case government)- to provide a seamless description of motion path and its localization in reference to ground;
- **a combination of aspectual prefixes and grammatical aspect** to define certain procedural characteristics of motion events and describe how they develop or exist in relationship to the timeline.

The lexicalization pattern outlined above does not completely coincide with how Russian is presented within the cross-linguistic dichotomy of motion talk (Talmy, 2000a, 2000b; Slobin, 1996). While Russian VoM express manner (as characteristic of S-framed languages), path can also be encoded on verbs (V-pattern): lexically through the verbs that impart information about (non)-unidirectionality and morphologically through inseparable prefixes. Thus, Russian does not precisely fit the dichotomy proposed by Talmy.
The review of the Slavic literature also suggests that spatial prefixes-satellites and prepositions in Russian share a strong conceptual bond; the combinatorial potential of prefixes with various prepositions is rather limited, which in turn narrows the number of path segments that can be associated with one manner verb. It is appropriate to argue on the basis of the literature review in this chapter that prefixes and prepositions in Russian do not function independently but rather that prefixes pattern with prepositions in producing a semantic blend of path-ground information, and this close interaction between prefixes and prepositions needs to be reflected in textbooks for L2 learners.

3.4. Conclusion

Filipovič (2006) points out that generalizations within typologies mean that their predictive power is not absolute. Certain essential differences may not be reflected in typological generalizations. This appears to be the case with regard to how motion is described in English and in Russian in the crosslinguistic typological work: there are similarities in general lexicalization patterns involved in the encoding of motion that are rightfully highlighted, but differences that might be a significant factor in the acquisition of Russian motion talk by L2 learners are also omitted. In this chapter, I addressed the elements involved in the expression of motion events in English and in Russian, while paying particular attention to such semantic elements as manner, path, and aspect.

In reference to manner it appears that both English and Russian have impressive manner-of-motion lexicons. Yet it is still unclear whether the same motion domains are salient in terms of manner in Russian and in English, i.e. Russian seems to be more specific than English in encoding displacement and conveyance. Some Russian verbs can
simultaneously encode manner of motion and directionality in space, which presents a blend of S- and V-framed patterning, i.e. encoding of manner and path on the verb\(^1\).

The expression of path in general is very different in the two languages both morphosyntactically and semantically. In this chapter I discussed the pattern for encoding path in English and Russian and pointed out that there is no one-to-one correspondence between the use of verbal particles and prepositions in English and prefixes and prepositions in Russian: in many contexts, especially involving boundary crossing and reading in English only a satellite or a preposition is used, while the corresponding structure in Russian specifies path and its relation to the ground boundaries through the use of prefixed verbs and associated prepositional phrases. Because Russian employs case marking, the same preposition can be used in different locative functions (i.e. different meanings), while in English, an analytic language, it is not common.

A striking difference between English and Russian exists in how temporal and aspectual contouring of events is provided. As I discussed in this chapter, the Russian verbal system is dominated by aspect: every verb must be grammatically marked as perfective or imperfective. Prefixed Aktionsarten can provide additional information about how a (motion) event unfolds in space and procedurally. In English, on the other hand, aspect is marked grammatically only about 10% of the time. It is also clear that the two aspectual systems do not coincide: Russian only includes perfective/imperfective distinctions, while in English progressive and non-progressive aspect is marked outside of the perfect-imperfect dichotomy. In the case of motion verbs, aspect can create very

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\(^1\) The fact that Russian verbs integrate morphemes encoding both path and manner seems to place Russian into the category of E-framed languages. However, Slobin’s (2006) description of E-framed languages suggests that in this linguistic class both path and manner have roughly equal morphosyntactic status, (e.g. verbs in a series, where each verb can also stand alone in a clause). In Russian, on the other hand, prefixes do not exist without a motion verb and are best described as path satellites.
specific spatio-temporal contours of motion events that can only be expressed by circumlocution in English.

This chapter has provided a basis for conducting a learner corpus analysis that I undertake in the following chapters and evaluating possible effects of crosslinguistic influence in learner speech. The insights gained from the comparative literature review will also inform my contrastive analysis of motion narratives produced by L1-speaking participants in English and Russian.
Chapter 4
Research methods

4.1. Introduction

There is an abundance of theoretical and pedagogical literature on Russian verbs of motion (Chapter 2) and motion talk in English (Chapter 3). However, as evident from the literature review, discussion of motion structures in Russian is informed by canonical grammar rules which were formulated by Russian prescriptivists in the beginning of the last century; these rules focus on disjointed morphosyntactic features and do not offer a unified explanation of how a motion event can be encoded in Russian. Similarly, the pedagogical literature intended for American learners of Russian follows a structural pattern of presenting verbs of motion, prefixes, and prepositions as separate constituents; this pattern was formulated in the US in the 1950s (Stilman, 1951). Therefore, at the present moment no satisfactory usage-based descriptions are offered which would account for how motion events are encoded in Russian, how Russian and English languages differ in this respect, and how RL2 learners describe motion. In the absence of comparable corpora in English and Russian and with no empirical learner data available, it is difficult to provide descriptions and/or contrast motion structures in these two languages. It is equally challenging to interpret well attested difficulties experienced by RL2 learners without being able to make inferences regarding cross-linguistic transfer and without access to their use of motion descriptions in communicative situations.

All of the challenges mentioned above form the guiding concerns for the dissertation research. In this chapter I argue that contrastive learner corpus analysis
(CLCA) is a methodological tool suitable for the purpose of collecting and storing language data on the one hand, and investigating learner L2 development (including the area of motion talk) and cross-linguistic interference, on the other hand. I first discuss the premises underlying the fields of contrastive analysis and corpus linguistics which have recently been joined forces to constitute an insightful analytical approach to learner speech (4.2.). I then delineate some benefits and challenges associated with corpus-based analysis and analyzing learner corpora in particular. Drawing on the current methodological literature, I offer a working definition of CLCA and outline a methodological model suitable for analysis of motion descriptions in L1 English, L1 Russian, and RL2 corpora. Section 4.3. describes the elicitation techniques used in the study, the types of collected data, and the participant groups. Section 4.4. addresses the specifics of data processing which allow for automatic retrieval of motion structures from the compiled corpora. Section 4.5. presents the research questions which guide the research project. Finally, I offer a general overview of how quantitative and qualitative research methods factor into my CLCA-informed analysis of motion talk.

4.2. Contrastive learner corpus analysis

The fields of contrastive analysis and corpus linguistics have different histories and areas of application, yet fairly recently they have begun to converge in a powerful approach to the linguistic analysis of learner language. This approach is generally referred to in the literature by terms such as ‘learner corpus analysis’ (e.g. Altenberg, 2002; Belz & Vyatkina, 2005), ‘contrastive interlanguage analysis’ (Granger, 2002) or ‘computer-based analysis of learner language’ (Barlow, 2005). To underscore that the
interests of my investigation are rooted in the study of cross-linguistic transfer as well as learner language as a system, I will use the term ‘contrastive learner corpus analysis’ (henceforth referred to as CLCA). This approach will be reviewed below following a brief discussion of contrastive analysis and corpus linguistics as co-components of CLCA.

4.2.1. Contrastive analysis and corpus linguistics

The history of contrastive analysis (CA) has not developed linearly: the perception of its merits, as well as the extent of its implementation in SLA research, has fluctuated dramatically. It was initially developed by Lado (1957) as an approach to predicting learners errors based on comparisons of two language systems. It was hypothesized that learner difficulties stem from L1 interference in the areas where the language systems differ. While Lado’s approach initially was widely acknowledged in the field of language teaching and had a significant impact on language curricula, later studies argued that interlingual disparity cannot always predict learner errors or explain them, and that other mechanisms, e.g. overgeneralization of target rules and avoidance may be more prevalent (Schachter, 1974; Kellerman, 1977). However, more recent research which offers evidence from a variety of different L1-L2 combinations has again highlighted the significance of cross-linguistic and cross-cultural differences (including such areas as phonology, conceptual and semantic knowledge in additional to grammar structures) and re-established transfer as one of the most important factors in L2 learning (e.g. Gass & Selinker, 1983; James, 1998; Kroll & DeGroot, 2002; Odlin, 1989; Pavlenko & Jarvis, 2002).

Corpus linguistics, i.e. “a linguistic methodology which is founded on the use of
electronic collections of naturally occurring texts, viz. corpora” (Granger, 2002, p.14) has also contributed to generating a new level of interest in CA. Comparable corpora from different L1s form datasets in machine-readable form that can be easily explored, analyzed, and contrasted with the help of widely-available technological tools. Not only do these tools allow for the processing of large bodies of data almost instantaneously, but they also reveal insights that may not be readily available to the naked eye. As Granger (2002) puts it, “the power of computer software tools combined with the impressive amount and diversity of the language data used as evidence has revealed and will continue to reveal previously unsuspected linguistic phenomena” (p. 14). Aijmer et al. (1996) underscore the benefits of comparative language analysis through corpora as increasing our knowledge of language-specific, typological, and cultural differences among languages, but also raising awareness of universal features which would be impossible to achieve through monolingual studies (cf. Svartik, 1992; McEnery & Wilson, 1996). Johansson (1998) points out that compiled corpora are easily transportable and can be used for purposes that may not even have been foreseen at the start of compilation. For some time now corpora have been playing an important role in such areas as lexicography, translation studies, discourse analysis, machine translation, and variation research (Biber et al., 1999; Carter & McCarthy, 2006; Granger, Lerot & Petch-Tyson, 2003; O’Keefe et al., 2007; Stubbs, 1996). In SLA teaching and research, contrastive corpus analysis has become recognized as a powerful methodological tool in its application to learner speech (i.e. Altenberg, 2002; Aston, 2001; Belz & Vyatkina, 2005; Granger, Hung & Petch-Tyson, 2002; Myles, 2005; Pavlenko & Driagina, 2007; Pennington & Stevens, 1992).
4.2.2. Learner corpora: benefits and challenges

While using learner language for SLA research is not a novel idea, learner corpora provide a new type of data which can facilitate our understanding of the mechanisms underlying L2 learning. Sinclair (1996) defines learner corpora as:

electronic collections of authentic FL/SL textual data assembled according to explicit design criteria for a particular SLA/FLT purpose. They are encoded in a standardized and homogenous way and documented as to their origin and provenance. (cited in Granger, 2002, p.17)

As follows from the definition, learner corpora provide datasets of open-ended speech gathered in communicative situations, rather than isolated words or chunks collected through close-ended instruments. Many SLA researchers have pointed out that the limited number of subjects used in most experimental studies makes it difficult to replicate the results of such investigations and might in turn lead to inappropriate conclusions. The use of learner corpora addresses this problem as most corpora are compiled from lengthy stretches of discourse elicited from relatively large groups of learners, which greatly enhances the representativeness of the data and the subsequent generalizability of the results.

Grangers’ definition points out such key characteristics of learner corpora as standardization and homogeneity. Usefulness of learner corpora is largely defined by how they are tailored in terms of design and possible applications (cf. Granger, 2002). Learner corpora can become a powerful resource for interlingual and intralingual research if the learner corpora are compiled from a homogeneous group of learners according to certain design criteria (e.g. in terms of origin, production mode, participant and task variables, learner histories, etc.). When learner corpora are contrasted with native speaker speech, the design criteria for the contrasted corpora have to be parallel across all language
groups (Atkins et al., 1992). Well documented corpora enable researchers for a more thorough analysis and multiple comparisons based on a set of target attributes.

Finally, the most potent attribute that researchers can benefit from in corpus-based approaches, including CLCA, is automation. Electronic data allow for a multitude of possibilities for counting, sorting, comparing, annotation, and error-tagging facilities. A variety of software options from crude to more sophisticated (e.g. NVivo, WordSmith) are available to corpus linguists which allows them to obtain such analytical information, as frequency lists, type/token rations, lexico-grammatical patterning of words, collocations, colligations, overuse/underuse of target structures and other statistical, phraseological or grammatical data that are of interest to a researcher but may not be obvious in a small data sample or impossible to detect and retrieve manually. While a raw corpus could be a useful resource, annotated corpora, i.e. electronic corpora to which interpretive, linguistic information have been added (Garside et al., 1997; Granger, 2002), allow for a more customized, thorough, and sophisticated analysis. Some of potentially useful and powerful annotating tools include part-of-speech taggers, parsers, lemmatizers, and semantic tagging.

An annotated corpus is a powerful resource, although its retrieval possibilities are dependent on the granularity of the tag set. Different languages and research goals dictate divergent approaches to annotation but also present specific challenges. Thus, for example, a synthetic language like Russian with a multitude of affixes poses an added layer of complexity for an automated part-of-speech tagger in comparison to an analytical language like English. When no ready-made annotating programs are available or appropriate, researchers are advised to resort to manual or semi-manual “problem-
oriented” tagging (Haan, 1984; Granger, 2002) to tag potentially useful linguistic features using simple editing tools. Customized tagging is necessary when research questions protrude beyond traditional – and structurally tangible- lexis and grammar. Recent monolingual corpus-based studies have addressed issues in pragmatics, discourse, and genre (Garcia, 2004; Partington et al., 2004; Reppen et al., 2002). Similarly, CLCA has been identified as a method that allows one to indicate the source of L2 learner errors, to assess the importance of L1 transfer, and to detect covert divergences in language use by L2 learners and native speakers in the patterns of semantic, conceptual, pragmatic, cultural and typological characteristics (i.e. Aijmer et al., 1996; Altenberg, 2002; Belz & Vyatkina, 2006; Driagina & Pavlenko, 2007; Granger, 1999; Johansson, 2003; Pavlenko & Driagina, 2007; Wible et al., 2001; Wiberg, 2000).

Learner corpora require additional, specific techniques for carrying out appropriate analyses. While all of the traditional annotation tools could be applied to learner corpora, idiosyncratic deviations from the standardized forms found in learner language make automatic annotation impossible, as available software tools only recognize standard forms. The only solution to solving the problem, albeit extremely complex and time-consuming, is manual annotation and error tagging. Errors can be tagged in terms of their nature, i.e. lexical, grammatical, semantic, etc., depending on the analytical needs. Several error tagging systems have been proposed (Dagneaux et al., 1998; Granger, 2002; Milton & Chowdhury, 1994), all of which are labor intensive and may be criticized for a certain level of subjective interpretation on behalf of the researcher assigning error tags. The problem becomes even more exacerbated when errors extend beyond the traditional lexico-grammatical realm. Automation is truly
powerless in such complex domains, and, in spite of the subjective and interpretive component, only manual coding can solve this problem. Additionally, as Herring (2004) argues in reference to annotation by human coders, “empirical rigor can be maintained if the researcher operationalizes and defines each coding category in explicit terms and applies the codes consistently to the data” (p. 361). Corpora offer one indisputable benefit to researchers conducting qualitative corpus-based analyses - the contextualized nature of the data, which is typically lacking in close-ended experimental studies. The availability of context allows researchers to make informed choices even in such fuzzy areas as semantics.

4.2.3 Learner corpora: methodological approach

Granger (2002) distinguishes the two most commonly used methodological approaches to analysis of learner corpora: Contrastive Interlanguage Analysis (CIA) and Computer-aided Error Analysis (EA). She defines CIA as a contrastive method which “consists in carrying out quantitative and qualitative comparisons between native (NS) and non-native (NNS) data or between different varieties of non-native data” (p. 12). EA is described as a method that “focuses on errors in interlanguage and uses computer tools to tag, retrieve and analyze them” (p.12). However, Granger (ibid.) admits that for studies involving NS/NNS comparisons, highlighting a range of non-native features in learner speech EA is at the heart of CIA; therefore, segregation of these approaches seems unwarranted. In the present study, EA will be considered as an integral part of learner corpus analysis. For purposes of analysis, the methodological approach will be formulated as follows:
**CLCA is a methodological approach in which computer corpora comparable in size, domain, genre, mode, etc. are collected from learners and from native speakers of the learners’ L1 and L2 with all participants being similar in age, gender and socioeducational background. In CLCA learners’ L2 performance is compared to the native speaker corpora in quantitative and qualitative terms with the purpose of uncovering similarities and divergences between the participant groups and revealing the characteristics of learner language as a system.**

(cf. Driagina & Pavlenko, 2007; Granger, 2002; Johansson, 1998; Pavlenko & Driagina, 2007)

Altenberg (2002) points out both the interpretive and predictive potential of CLCA. Thus, the researcher can analyze interlanguage first and then proceed with CA to interpret the learner data. Alternatively, one could begin with from CA, i.e. analyze a target language feature in monolingual corpora and then conduct investigations of a learner corpus to assess evidence of transfer. Some linguists have expressed strong objections to such NS/NNS comparisons because they see them as reinforcing the ideal ‘native speaker’ norm as an ultimate proficiency goal rather than studying learner language in its own right (Widdowson, 1991). To address this concern, in my dissertation I decided to study learner language as well as monolingual corpora (native corpora of learner’s L1 vs. L2) as independent systems in their own right and only then contrast them, which may be viewed as a less ‘native-speaker biased’ approach (see Figure 1). To protect the integrity of CLCA as a methodological approach, I should also point out that it typically – as in my investigation - relies on authentic corpora produced by real speakers similar to learners in age and socioeconomic status rather than on idealized
grammar rules resulting from linguistic theorizing. The native corpora can thus be viewed as a more attainable, realistic, and desirable standard for language learners than traditional textbook or reference grammar rules.

As discussed in Section 4.2, it has been widely established that CLCA is an approach which yields particularly powerful results when it is used in combination with automatized quantitative but also interpretive qualitative methods. In the general field of SLA, a combination of quantitative and qualitative methods which brings insights from various paradigms is also a preferred approach to research design (i.e., Teddlie & Tashakkori, 2003). In my investigation of how motion events are encoded by different

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1 While most of the existing pedagogical materials and reference grammars are not informed by corpus-based research, there are some notable exceptions, e.g., see *Cambridge Grammar of English* by Carter & McCarthy (2006) and *The Cambridge Guide to English Usage* by Rivers (2004) as example of corpus-based grammars.
participant groups, I combined automatic quantitative methods to count, sort, and compare the target surface structures involved in motion talk. I additionally used qualitative methods to analyze the semantics of motion structures in L1 corpora and the learner corpus as well as to interpret the nature and origin of errors in learner speech in the context of the entire narratives. The following sections will address the specifics of analytical procedures, coding, and the research design.

4.3. Research design

The methodological approach of CLCA was employed in the dissertation to investigate the use of motion expressions in the speech of American learners of Russian. Three corpora were collected in accordance with the definition of CLCA: a monolingual native corpus of learners’ L1 (English), monolingual native corpus of learners’ L2 (Russian), and learner corpus (Russian L2). Collection of these three different corpora allowed me to analyze English, Russian, and learner language as three separate systems and to investigate how the same motion events were encoded by the three participant groups. Learner speech was therefore assessed against ‘real’ native Russian users rather than an idealized native speaker. The use of native Russian and English corpora additionally allowed me to ascertain the source of learner errors in terms of cross-linguistic transfer (from English to Russian) and to pinpoint the areas where learners’ use of motion expressions differs from that of native Russian speakers. To confirm the reliability of the author’s evaluations related to learner choices, an L1 Russian native speaker was trained to independently evaluate the appropriateness of path elements. The comparison of the two sets of evaluations revealed a high level of agreement: the two
raters agreed on the appropriateness of over 90% of all learner choices. If only one of the raters deemed a learner choice appropriate, it was considered ‘correct’.

4.3.1 Elicitation techniques and data

To collect samples of motion descriptions I relied on visual stimuli chosen to elicit narratives rich in motion events of different types. Narrative elicitation has gained particularly popularity in recent SLA research as well as in social sciences for investigations of issues ranging from interlanguage development to psychology of self-reconstruction (cf. Creswell 2003). Pavlenko (2002) points out several benefits of narrative elicitation such as the contextualized nature of elicited speech samples as well as a relative measure of control: all participants were asked to describe the same stimulus, and, therefore, the resulting narratives allow for a meaningful contrastive analysis. Both of the features are particularly suited for the comparability of data requirement imposed by CLCA as a methodological framework. Additionally, telling a story (based on a personal experience, movie or a pictured book) is a communicative enterprise in which speakers regularly engage in real life communicative situations when socializing with friends, discussing films and comics, reading stories to children, etc.; therefore narrative elicitation can be considered a comparatively authentic task.

The visual stimuli (see Appendix C, D, E for a detailed description of each stimulus) used to elicit motion narratives included:

- a short episode from the popular Mr. Bean series *The Parking Lot* (3 min)
- a short episode from the popular Mr. Bean series *The Swimming Pool* (5 min);
- a wordless picture book *Frog, where are you?* (Mayer, 1969) which had been previously used to collect motion narratives in more than 70 languages, albeit never from adult L2 learners of Russian (Slobin, 1996, 2003b also see collections by Strömqvist & Verhoeven, 2003; Verhoeven & Strömqvist, 2001).

All of the stimuli contain descriptions of different motion events and were expected to produce diverse motion descriptions of various types and in different temporal / aspectual framing.

Additional data collected for the investigation included participant profiles. Questionnaires were distributed to the participants prior to the elicitation sessions to collect such information about their socioeducational status, age, gender, proficiency in FL, and, for L2 participants, their learning histories and socialization patterns in Russian (see Appendix F for the questionnaire).

### 4.3.2. Participants, location, and timeline

A total number of 210 participants took part in the research project. The data were collected from December 2002 to August 2006 (see Attachment G for a copy of a consent form). All of the participants were university students with a mean age of 23. Narratives elicited though movies and life story interviews were collected as part of a larger project *Narrative and Conceptual Proficiency in Advanced Russian* sponsored by CALPER. The following participants were included into the dissertation investigation:

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1 CALPER (Center for Advanced Language Proficiency in Education and Research) is a Title VI Language Resource Center at the Pennsylvania State University. The CALPER Russian project “Narrative and Conceptual Proficiency in Russian” (2002-2006) was funded by the U.S. Department of Education grant CFDA 84.229, P229A020010-03 and directed by Dr. Aneta Pavlenko.
- L1 speakers of Russian (N=60\(^1\) (33 females and 11 males, students at the Tomsk State University, Russia; 8 females and 8 males, Russian students at the Pennsylvania State University; PA));
- L1 speakers of English (N=30 (15 females and 15 males, students at the Pennsylvania State University, PA));
- L2 learners of Russian (N=30; 15 females and 15 males; students at the Middlebury College Russian School, VT).

‘Frog stories’ were collected from a different group of participants who included:
- L1 speakers of Russian (N=30; 15 females and 15 males, university students, Khabarovsk, Russia);
- RL2 learners (N=30; 15 females and 15 males, students at the Middlebury College Russian Summer School, VT);
- L1 speakers of English (N=30, 15 females and 15 males, university students at Temple University, PA\(^2\)).

The monolingual groups had only minimal knowledge of a foreign language. The RL2 learners were undergraduate and graduate students enrolled in 6\(^{th}\) and 7\(^{th}\) level (the highest levels of proficiency at Middlebury Russian School) and in graduate-level Russian courses. Although the RL2 learners differed in the length of study of the language (range 1-16 years, mean = 5.3), their skills were relatively similar. The very fact that the learners were enrolled in levels 6\(^{th}\) and higher speaks for itself: at Middlebury, all

\(^1\) This number is so high in group because monolingual students recruited in Russia were asked to produce one narrative at a time, while each participant in other language groups described both Bean episodes during one elicitation session. Also, only 14 “Parking Lot” narratives were collected in Russia. For this reason, 16 “Parking narratives” included in the study were collected in PA from Russian graduate students studying in the US (all of whom report relying predominantly on Russian in everyday communication with friends). Therefore, an equal number of narratives were collected from each of the participant groups.

\(^2\) These monolingual English data were collected and graciously shared by Dr. Aneta Pavlenko.
students must participate in a series of placement tests, including a simulated Oral Proficiency Test (SOPI), computerized grammar, speaking, and listening exams, and write an essay. The students are assigned to their level of proficiency in accordance with their test results. Additionally, a self-assessment questionnaire was used; the answers also show similarity in how students perceive their proficiency. On a 7-point scale where 1 equaled ‘poor’ and 7 ‘native-like’, most rated themselves as best at reading (mean = 4.9) and weakest at writing (mean = 4.2), with listening (mean = 4.7) and speaking skills (mean = 4.3) somewhere in between.

### 4.3.3 Procedure

All of the participants were recruited through flyers as well as through class announcements. Prior to the interview sessions, all of the participants were pre-screened to determine

- their native speaker status in accordance with their target language group;
- that their proficiency in another foreign language is minimal to eliminate possible cross-linguistic interference;
- that they were 18 or older in compliance with IRB requirements;
- that they were university students;
- that learners were enrolled in advanced language courses.

In the beginning of each interview session participants were asked to read and sign the consent form. After that I described to them how the elicitation session would proceed. Collection of Mr. Bean narratives during CALPER sessions occupied approximately 20-25 min. Participants were shown the film clips one by one and then asked to retell what happened at the end of each clip. A total number of 180 narratives
based on the Bean series were collected in the course of this research.

‘Frog story’ interviews lasted between 15 min. with monolingual participants to 30 min. with RL2 learners. Before telling the story, participants were offered 5 min. to look through the book, and learners could additionally consult a list of select nouns which included animals and objects significant for the flow of the story. The ‘frog story’ interviews were video and audio recorded. All participants were offered an honorarium for their participation in the data collection portion of the project. A total number of 90 ‘frog’ narratives were collected from the three participant groups.

4.4. Data processing

4.4.1. Corpus compilation

Upon completion of the interviews, all audio recordings were transcribed. I stored all transcripts as well as the metadata from participants’ profiles (age, gender, language status, etc.) electronically to create a bilingual Russian-English motion corpus consisting of three sub-corpora in accordance with language group: a native Russian motion corpus (RMC); a native English motion corpus (EMC), and a corpus comprised of motion narratives told by RL2 learners (LMC).

4.4.2 Annotation

As discussed in the literature review, the lexicalization pattern in English for describing motion events typically consists of the verb, which denotes motion of some type, and a prepositional phrase which carries the information about the path of motion; that is, the ground again which the figure in question moves. In Russian, the
lexicalization pattern might also include a verbal prefix to encode additional information about the path of the motion event. Motion narratives collected for the study are rich in motion descriptions and generally reflect the lexicalization patterns discussed above. However, current software programs are not sufficiently sensitive to allow for automatic retrieval of morphosyntactic categories related to motion. While there are certain text retrieval software tools that liberate linguists from the drudgery of performing many searches manually, the tools are powerless in the area of semantics and morphosyntax, especially in the case of Russian verbs where various stem changes occur as a consequence of affixation. Therefore, to search for motion verbs, as well as motion prepositions and prefixes, I developed a system of tags to add interpretive information to the existing corpus.

In annotating the corpus for motion descriptions I relied on the method offered by Dagneaux et al. (1998) for tagging errors in learner corpora. The system is hierarchical: a series of codes are assigned to a linguistic unit, and the codes go from general to specific. I adapted this system to annotate the corpus in terms of motion expressions and developed a hierarchical system of codes appropriate for marking motion structures in English and Russian (see Tables 1 and 2). In accordance with the literature review, I considered the following lexicalization patterns in Russian and English: prefix + verb + preposition vs. verb + preposition, respectively. Russian VoM required a much more elaborate system of annotation due to such characteristics as

- prefixation (prefixes encoding information about motion path or aspectual/temporal characteristics of motion events);
- encoding of uni- and multidirectionality by select VoM;
- inherent encoding of imperfective or perfective aspect on all verbs.

Thus, in tagging Russian VoM I distinguished such features as “prefixed/unprefixed”, “perfective/imperfective”, “uni/multidirectional verbs” vs. “usual” (verbs that do no encode directionality). The system for analyzing prefixed VoM becomes even more complex once we consider that some prefixes carry aspeectual nuances (e.g. in *Aktionsarten*) and some prefixed encode path details. Table 1 reflects the characteristics I accounted for in tagging surface structures for motion expressions in Russian.

**Table 1. Linguistic units considered for analysis of VoM**

<table>
<thead>
<tr>
<th>Russian VoM</th>
<th>Unprefixed</th>
<th>Prefixed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imperfective</td>
<td>Perfective</td>
<td>Imperfective</td>
</tr>
<tr>
<td>Directional</td>
<td>Usual</td>
<td>Directional</td>
</tr>
<tr>
<td>Uni</td>
<td>Non</td>
<td>D-1</td>
</tr>
<tr>
<td>_DU</td>
<td>_DN</td>
<td>T-</td>
</tr>
<tr>
<td>_T</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2 summarizes the tag set that I developed for tagging motion expressions in Russian and English.

**Table 2. Annotation system for coding motion in English and Russian**

<table>
<thead>
<tr>
<th>Category</th>
<th>Codes for Encoding Motion in English</th>
<th>Codes for Encoding Motion in Russian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Path element</td>
<td><code>&lt;@&gt;</code>-path element (satellite or a preposition)</td>
<td><code>&lt;@&gt;</code> - unbound path element (adverbial or a preposition)</td>
</tr>
<tr>
<td></td>
<td><code>&lt;@&gt;</code>1 – unbound path element; 1st segment in a path clause</td>
<td><code>&lt;@&gt;</code>1 – unbound path element; 1st segment in a path clause</td>
</tr>
<tr>
<td></td>
<td><code>&lt;@&gt;</code>2 - unbound path element, 2nd segment in a path clause following an <code>&lt;@&gt;</code>1</td>
<td><code>&lt;@&gt;</code>2 - unbound path element, 2nd segment in a path clause following an <code>&lt;@&gt;</code>1</td>
</tr>
<tr>
<td></td>
<td><code>&lt;@&gt;</code>2 - unbound path element following a VoM with a bound prefix-satellite</td>
<td><code>&lt;@&gt;</code>2 - unbound path element following a VoM with a bound prefix-satellite</td>
</tr>
</tbody>
</table>

1 Path prefix
2 Aspectual Prefix
<table>
<thead>
<tr>
<th>Verb un-prefixed</th>
<th>&lt;V&gt; - verb ‘get’ in motion meanings</th>
<th>&lt;_DUI&gt; – unprefixed imperfective unidirectional</th>
<th>&lt;_DNI&gt; - unprefixed imperfective non-unidirectional</th>
<th>&lt;_TP&gt; - unprefixed perfective VoM (non-directional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verb prefixed</td>
<td>N/A</td>
<td>&lt;DI&gt; - prefixed imp. VoM with a path prefix (directional)</td>
<td>&lt;DAI&gt; - prefixed imp. VoM with an aspectual prefix (directional)</td>
<td>&lt;DMP&gt; - prefixed perf. VoM with a path prefix (directional)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt;TMI&gt; - prefixed imp. VoM with a path prefix (non-dir.)</td>
<td>&lt;TAI&gt; - prefixed imp. VoM with an aspectual prefix (non-dir.)</td>
<td>&lt;TMP&gt; - prefixed perf. VoM with a path prefix (non-dir.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt;KDI&gt; - prefixed imp. VoM with a path prefix (directional)</td>
<td>&lt;KDAI&gt; - prefixed imp. VoM with an aspectual prefix (directional)</td>
<td>&lt;KTMI&gt; - prefixed imp. VoM with a path prefix (non-dir.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt;KDI&gt; - prefixed imp. VoM with an aspectual prefix (non-dir.)</td>
<td>&lt;KTAI&gt; - prefixed imp. VoM with an aspectual prefix (non-dir.)</td>
<td>&lt;KTMP&gt; - prefixed perf. VoM with a path prefix (non-dir.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt;KDAP&gt; - prefixed perf. VoM with an aspectual prefix (directional)</td>
<td>&lt;KTAP&gt; - prefixed perf. VoM with an aspectual prefix (non-dir.)</td>
<td>&lt;KDMP&gt; - prefixed perf. VoM with a path prefix (directional)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt;KDI&gt; - prefixed perf. VoM with a path prefix (non-dir.)</td>
<td>&lt;KTAP&gt; - prefixed perf. VoM with an aspectual prefix (non-dir.)</td>
<td>&lt;KDAP&gt; - prefixed perf. VoM with an aspectual prefix (directional)</td>
</tr>
</tbody>
</table>

As is typically done, tags were inserted manually to the left of the content word. *WordSmith* allows retrieving tags based on any number of specified symbols by using a “wildcard”, i.e. it is possible to vary the specificity of the search. For example, to retrieve all unprefixed imperfective unidirectional verbs of motion one should type a full tag <_DUI> in the concordancing window. *WordSmith* would allow to retrieve all unprefixed verbs or all unprefixed (non)-unidirectional verbs by typing <>*>* or <_D>*>* respectively (e.g. see Figure 2).

Annotation was also necessary for disambiguating polysemous verb. Thus, in English verbs ‘get’ and ‘go’ can be used to render motion (e.g. ‘He got out of the parking lot’ and ‘He is going home’), but both verbs can have other meanings as well. Thus, ‘get’ was used by participants to relay a variety of a protagonist’s mental or emotional experiences, e.g. ‘He got angry’. ‘Go’ was used to express a protagonist’s intentions as part of the construction “going to”, e.g. ‘He wasn’t going to jump’.
4.4.3. Error tagging

Learner corpora are admittedly ‘special corpora’ (Sinclair, 1995, p.25) as learner speech presents numerous and often idiosyncratic deviations from standard forms. This poses a challenge for computer-assisted EA which can only be resolved through consistent manual error-tagging, similarly to how it is done with elaborate semantic and lexico-grammatical annotation. To code errors in learner speech I developed a system analogous to that I used for annotation of the native corpora (L1 English and L1 Russian). Table 3 illustrates the codes that I used for tagging errors in learner motion talk.
Table 3. Tag set for coding errors in RL2 Russian motion talk

<table>
<thead>
<tr>
<th>Error Category</th>
<th>Codes for Encoding Motion in Russian</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>&lt;&amp;&gt; - error</td>
</tr>
</tbody>
</table>
| Preposition    | <@S> – semantically inappropriate choice of a preposition  
<@O> – use of preposition in the context where it is not required  
<@U> – preposition omitted in the context where it is required |
| Verb           | <&RS> - semantically inappropriate verb root  
<&RF> - idiosyncratic form-related error (conjugation, gender, number, etc.)  
<&RX> - idiosyncratic distortion of a VoM  
<&S> - semantically inappropriate prefix  
<&-AO> - an aspectual prefix used in the context where it’s not required  
<&-AU> - an aspectual prefix not used in the context where it’s required  
<&-O> - a path prefix used in the context where it’s not required  
<&-U> - an path prefix not used in the context where it’s required |

An error tag was marked by the symbol ‘&’. All error tags were inserted between the annotation tag and the tagged lemma to allow for automatic retrieval. Following the symbol ‘&’, special codes were inserted to specify the categories of an error (i.e. whether it is aspectual or semantic and where it occurred). Thus, for example, a tag < _DUI><&-U> to the left of the verb letat’ ‘fly’ were used to indicate that there was an error in the usage of the unprefixed unidirectional verb ‘fly’ when it was used without a prefix whenever the context required a path prefix. Again, because the “wild card” in WordSmith allows searching for any combination of symbols, it was possible to tailor the search in accordance with the analytical purposes. For example, when I needed to retrieve all cases in which path prefixes were erroneously omitted by RL2 learners, I typed < _*><&-U>* in the concordancing box (see Figure 3).

I used WordSmith to assign tags to motion verbs, prefixes, and prepositions across the corpora and also to tag errors in the learner corpus. Although the process was labor intensive and time consuming, because all analytical units were retrieved within their
context of use, it allowed for an automatic retrieval of the structures of interest and for an easy and meaningful quantitative as well as qualitative analysis.

**Figure 3. Sample WordSmith concordance:**
A selection of form-related errors in the use of VoM in the LMC

<table>
<thead>
<tr>
<th>Concorance</th>
<th>21</th>
<th>И это было его лягушка там &lt;T1&gt;&lt;F&gt;сидеть / сидит и он ааа ну что?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>22</td>
<td>банка на голове. Ам. Собака &lt;TLP&gt;&lt;F&gt;упал с окна или да с окна. Ам</td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>когда мальчик спал, &lt;DMP&gt;&lt;RS&gt;&lt;F&gt;вышел лягушка из бутылки и вишнёл</td>
</tr>
<tr>
<td></td>
<td>24</td>
<td>лягушка из бутылки и &lt;DMP&gt;&lt;RS&gt;&lt;F&gt;ушел. вышла и ушла, потому что</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>лежал на земле и &lt;DMP&gt;&lt;RS&gt;&lt;F&gt;вышел / вышла или вылетела из</td>
</tr>
<tr>
<td></td>
<td>26</td>
<td>молчала а потом они &lt;DU&gt;&lt;RS&gt;&lt;F&gt;шел / шли через или над или над</td>
</tr>
<tr>
<td></td>
<td>27</td>
<td>с собакой / собала аа &lt;TLP&gt;&lt;RS&gt;&lt;F&gt;упал из окна и мальчик чуть-чуть</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>не знаю как сказать, вдруг &lt;TAP&gt;&lt;RS&gt;появилась / появился сурок и он</td>
</tr>
<tr>
<td></td>
<td>29</td>
<td>он нашел олень и олень &lt;TP&gt;&lt;RS&gt;&lt;F&gt;взять мальчик с собой с регом.</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>на как это лягушку и собака там &lt;T1&gt;&lt;F&gt;стоял / стояла не знаю тоже</td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>лягушку и собака там стоял / &lt;T1&gt;&lt;F&gt;стояла не знаю тоже смотрел на</td>
</tr>
<tr>
<td></td>
<td>32</td>
<td>аа мальчика и собаку аа &lt;DMI&gt;&lt;F&gt;уходить. И это конец, о конец,</td>
</tr>
<tr>
<td></td>
<td>33</td>
<td>потому что девочка / девочка &lt;TAP&gt;&lt;F&gt;поймал его шорты и она аа она</td>
</tr>
<tr>
<td></td>
<td>34</td>
<td>большая рука в гараже аа &lt;TMP&gt;&lt;RS&gt;поднял-ся аа поднялась и он</td>
</tr>
<tr>
<td></td>
<td>35</td>
<td>вышку и он думал О! Это будет &lt;T1&gt;&lt;F&gt;прыгать? Как сказать? (elicted</td>
</tr>
<tr>
<td></td>
<td>36</td>
<td>и очень быстрее аа &lt;DU&gt;&lt;RS&gt;&lt;F&gt;лёг по лестнице или? поднялся</td>
</tr>
</tbody>
</table>

4.5. Research questions

Corpora themselves can only serve as a data pool: any insights obtained from corpus analysis result from the specific research questions formulated by the researcher. My research questions were formulated in accordance with CLCA as a methodological framework as formulated in Section 4.2.: I started from a corpus-based analysis of L1 English and L2 Russian monolingual motion descriptions, then proceeded with the
analysis of learner motion talk as a system (including learner-to-learner comparisons as a quasi-longitudinal study), and concluded with contrastive analysis of learner corpora and monolingual corpora to trace possible cross-linguistic transfer. For the purpose of conducting a quasi-longitudinal comparison, learner corpora were divided into two subgroups: “more experienced” learners (RL2 students with 5 + years of formal instruction and at least 6+ months of immersion in a Russian-speaking environment vs. “less experienced learners” (students who on average had 3.5-4 years of classroom instruction and 2 or fewer months of study abroad). Accordingly, my research questions were formulated as follows:

**L1-based questions**

**Q1.** *Which specific linguistic structures are characteristic of Russian motion talk in terms of lexical, morphosyntactic, semantic, and aspectual choices made by native Russian speakers in the contexts provided by a series of films and a picture story?*

**Q2.** *Which specific linguistic structures are characteristic of English motion talk in terms of lexical, morphosyntactic, semantic, and aspectual choices made by native speakers of American English in the contexts provided by a series of films and a picture story?*

**CA-based questions**

**Q3.** *How does learner motion talk differ from motion descriptions by native speakers of Russian in terms of their lexical, morphosyntactic, semantic, and aspectual choices in the context of the same tasks?*

**Q4.** *Can RL2 learners’ lexical, morphosyntactic, semantic, and aspectual choices in their
motion talk be explained by L1 interference from English, i.e. general differences between L1 English and Russian surface structures for encoding motion?

**Learner corpus-based questions**

**Q5. A.** Which specific linguistic structures are characteristic of RL2 motion talk in terms of lexical, morphosyntactic, semantic, and aspectual choices made by American learners of Russian of in the contexts provided by a series of films and a picture story?

**Q6. B.** How do characteristics of motion talk vary between the more experienced and the less experienced learner groups?

**4.6. Overview of a mixed-design approach**

As discussed in Section 4.1.2., CLCA yields most powerful results when a mixed method of quantitative and qualitative analysis is applied. Accordingly, I relied on both types of analysis in my investigations.

In conducting quantitative analysis across the three language groups (L1 English, L1 Russian, and RL2 group) I focused on such general characteristics of participants’ speech as

- narrative length;
- lexical richness (types to tokens ratio);

as well as characteristics specific to motion talk such as

- distribution of motion structures across morphosyntactic categories
- variety of motion structures (i.e. types) across each of these categories;
- frequency (tokens) of these structures;
- “motion” richness (tokens of motion verbs: tokens of non-motion lemmas).

I also relied on quantitative measures in conducting the error analysis and calculating cross-linguistic influences in learner speech, particularly in terms of the distribution of motion structures across morphosyntactic categories: *WordSmith* allowed me to investigate issues of overrepresentation and underrepresentation of motion structures in learner talk by contrasting the three corpora.

*Qualitative* analysis provided further insights into my examination and interpretation of linguistic factors that affected speakers’ lexical and morphosyntactic choices in the light of their learning histories and experiences. As evident from the literature review, Russian and English are currently assumed to have similar lexicalization patterns in expressing motion (Talmy, 1985, 2000). In the study, I analyzed lexical and morphosyntactic preferences in motion talk of the three participant groups to describe and compare how and to what extent *path*, *manner*, and *aspectuality* are explicated in their narratives.

### 4.7. Conclusion

In this chapter I described and specified the essence of CLCA as a methodological framework. I also provided details of the research design, participants, and stimuli. No corpus investigations of motion talk in Russian or English (L1 or L2) have yet been reported to date that I am aware of. This chapter contains an outline of the research questions which guide my data analysis in Chapter 5. Finally, following the methodological procedure I formulated for CLCA in Section 4.2., I describe here my application of qualitative and quantitative research methods for studying L1 and RL2
speakers’ motion talk as independent systems and for investigating cross-linguistic influences and the nature of errors in learner speech.
Chapter 5

Comparative analysis of motion talks in the EMC and RMC

5.1. Introduction

In this chapter, I draw on the elicited narratives produced by L1 speakers of Russian and L1 speakers of English to answer the first two questions posed by this dissertation, namely:

Q1. Which specific linguistic structures are characteristic of Russian motion talk in terms of lexical, morphosyntactic, semantic, and aspectual choices made by native speakers in the contexts provided by a series of films and a picture story?

Q2. Which specific linguistic structures are characteristic of English motion talk in terms of lexical, morphosyntactic, semantic, and aspectual choices made by native speakers of American English in the contexts provided by a series of films and a picture story?

As discussed in the methodology chapter, the contrasted L1 motion corpora (the EMC and the RMC\(^1\)) are comprised of narratives elicited through two short episodes from the Mr. Bean series (The Parking Lot and The Swimming Pool) and a wordless picture book, i.e. “the frog story”. It has been previously noted (cf. Granger, 2002) that CLCA yields the most powerful results when a mixed method of quantitative and qualitative analysis is applied. Accordingly, in this chapter I begin the discussion of the results by presenting the characteristics of L1 motion talk in English and Russian in quantitative terms; I then analyze these results in light of a more comprehensive qualitative analysis.

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\(^1\)The English Motion Corpus and the Russian Motion Corpus
In fact, the corpus-based methodology and the motion tagging system developed for the study allow me to retrieve and summarize in quantitative terms the use of the surface structures involved in encoding L1 motion talk in English and Russian. On the other hand, the collected narratives supplied contexts within which motion structures could be meaningfully evaluated and considered from the point of view of syntax, lexis, semantics, and aspectual framing. The nature of narrative elicitation as a task, therefore, provided an opportune environment for qualitative evaluation of the structures used by L1 speakers to express motion meanings. The quantitative analysis focuses on analyzing the two corpora in general terms (size & length), as well as on evaluating the structures carrying motion meanings in terms of frequency and variety (Section 5.2). The qualitative analysis interprets the quantified findings and provides a comprehensive comparison of the motion structures in the EMC and RMC in terms of semantics, syntax, lexicalization patterns, and aspectual contouring (Section 5.3).

5.2. Quantitative analysis

5.2.1. Corpora size and narrative length

The frog stories told by the L1 English group total 10,585 words, and the two Bean narratives cumulatively include 20,846 words. This averages about 353 words per frog story and 347 words per each Bean narrative. Therefore, the total size of the EMC, which consists of 90 narratives, is 31,431 words with the average length of a narrative being 349 words (see Figure 1 on the next page).
In compassion, L1 Russian speakers produced frog stories containing 11,942 words averaging 398 words per narrative and Bean stories totaling 17,656 words which on average constitute 294 words per narrative. Thus, the total size of the RMC is 29,598 words where an average narrative contains 328 words (see Figure 2 below). The two corpora, therefore, are quite comparable in terms of size and narrative length.

While we established that the two L1 corpora are comparable in size and narrative length, the differences and similarities between the EMC and RMC are best measured by frequency and variety of the elements involved in the expression of motion meanings. The term frequency refers to the tokens of all motion elements in the corpora, and variety measures the number of types of the analyzed motion elements. The results of the
frequency and variety analyses are presented in the following sections.

5.2.2. Frequency and motion density per narrative

To calculate the frequency with which motion elements were employed by the L1 Russian and L1 English narrators, I calculated the total number of tokens of motion verbs and path segments (instantiated through particles, prepositional phrases, and adverbials) involved in the encoding of motion scenes in English, and the total number of motion verbs and path segments (instantiated through prefixes-satellites, prepositions and adverbials) in Russian.

**Motion verbs**

To narrate the frog story, L1 English speakers used 645 tokens of motion verbs, while in the two Bean stories this number constitutes 1,635 verbs. The total number of VoM in the EMC, therefore, totals 2,280 tokens. Comparison of the frequency counts reveals that the RMC contains more tokens of VoM than the EMC, i.e. Russian narrators encoded more motion segments overall. To narrate the frog story, they used 1328 (prefixied and unprefixied) VoM, and 2010 VoM were retrieved from the L1 Russian Bean narratives. Therefore, the total number of motion verbs in the RMC reaches 3338. In both L1 corpora, the frequency of motion verbs is higher in the Bean narratives (7.8% in the EMC and 11.4% in the RMC) than in the frog stories (6.1% and 11.1%, respectively) (see Figure 3). On average this means that every 7\textsuperscript{th} word in the English corpus and every 11\textsuperscript{th} word in the Russian corpus are motion verbs. Thus, the frequency analysis allows us to conclude that motion verbs played an important role in the depiction of the motion narratives – both in the speech of the L1 English and Russian narrators.
Path segments

As discussed in Chapters 2 and 3, it has been suggested that language typology (i.e. membership in the S-framed vs. V-framed group\(^1\)) contributes to the level of motion event granularity (i.e. specificity) both in terms of manner and path segmentation. Thus, Slobin (2003b, 2005a, 2006) has claimed that in V-framed languages paths are mono-componential because they are expressed by a single verb (enter-cross-exit). In S-framed languages, on the other hand, motion verbs are believed to accumulate strings of path markers in their scope. English has been described as being able to compact “heavy” sequences into single compact multi-segmented paths with one VoM (Slobin, 2003b, 2005a, 2005b). The study conducted by Slobin in 2005b specifically compared path expressions in the narratives produced by speakers of Germanic and Slavic languages.

\(^1\) As chapter 2 discusses, in satellite-framed (S-framed) languages VoM usually encode manner and satellites associated with the verb (particles, adverbials) express path. In verb-framed (V-framed) languages, the main motion verb in the clause expresses the path and, if manner is expressed at all, it usually is through an optional external clause.
The study reported that in the descriptions of a particular scene from the frog story (“fall from the cliff”), 86% of narrators with a Germanic L1 mentioned 3 segments or more; Slavic participants mentioned 3 or more segments in 76% of all descriptions of the scene. Because the frog story is also used as an elicitation technique in this project, it is of particular interest to investigate whether the data would replicate the findings of Slobin’s 2005b study and show similar frequency with regard to the descriptions of path.

To calculate the frequency of path descriptions in the EMC and the RMC corpora, I accounted for the number of all path clauses (mono-componentional and multi-componentotional) and path segments (constituents of path clauses) that were found in the scope of each VoM in the analyzed narratives. Because a motion situation is defined in this dissertation as containing either the fact of stasis or change of location (Chapter 2), path segments can similarly include locative elements (i.e. A young boy and his dog are sitting in his bedroom) and directional elements (i.e. An owl came out of the tree).

Path segments in English can be instantiated through the use of satellite-particles, prepositional phrases, and/or some adverbs (i.e. close, far, further). Thus, all path elements in English are unbound in relationship to the verb. In Russian, however, retrieval of path elements requires a different strategy. Since prefixes-satellites in Russian are bound, verbal prefixes with motion prefixes were counted as path segments. Unbound path elements in Russian include prepositional phrases as well as certain satellite-like adverbs (nazad ‘back’, vpered ‘forward’, daleko ‘far’, naverkh ‘up’).

The results of the frequency count reveal that in the EMC, the frog stories contain 766 various path segments. As reported in the previous subsection, the number of the motion verbs used in the English frog narratives is 645. Because the two frequency
counts are so close, this comparison is a telling indication that in the EMC descriptions of path are not characterized by a high degree of complexity in path segmentation. In fact, the total number of path clauses in the frog story totals 637, among which the overwhelming majority of path descriptions, i.e. 515, contain only one path component. The remainder of the path clauses includes 115 double-segmented paths with 7 paths consisting of 3 components. I will focus on the particulars of the “cliff scene” reported in Slobin’s 2005b study later in this chapter, but the overall frequency analysis shows that fine segmentation of path is not characteristic of the oral narratives produced by the L1 English participants in this study. Three segments is the maximum length of path clauses found in the frog stories in the EMC. Even three-segmented paths are rare and constitute a mere 1.1% of all clauses in the frog story. Figure 4 graphically represents how path segments are distributed among path clauses in the English frog dataset.

A total of 1879 path segments were retrieved from the L1 English Bean stories which combined to form 1536 path clauses. Among these path descriptions, 1233 contain
one path segment (again, the majority) and 267 consist of two components. Multi-segmental path clauses that accumulate 3 components or more within the scope of one verb are an exception rather than a rule: 33 paths have three segments in the Bean dataset, 2 have four segments and 1 compacts five segments (see example (33) in Section 5.3.2). As is the case with the frog stories, only 2.3% of participants provided path descriptions with three components or more. Figure 5 below provides a graphical summary of how path segments are distributed in the Bean narratives. Figures 4 and 5 clearly demonstrate that the overwhelming tendency among the L1 English participants was to provide simple (mono-componential) path clauses in narrating the stories. Eighty-one percent of all path descriptions in the EMC contain a single path segment.

![Figure 5. Distribution of path elements in EN Bean narratives](image)

While retrieval of path elements in English is non-problematic, frequency analysis of path expressions in Russian requires a more complex morphosyntactic analysis as it involves both bound and unbound path elements. To narrate the frog story, L1 Russian participants used 1423 path segments from which they formed 825 path clauses. Thus,
Russian speakers employed 677 VoM with prefixes that express motion-related nuances\(^1\). Among such VoM with prefixes-satellites, 97 verbs do not contain any unbound path elements in their scope, i.e. they form bound single-segmented paths. As for the unbound elements, 746 prepositional phrases and adverbials were retrieved from the frog story dataset. One hundred thirty simple paths (mono-componential) found in the frog story are formed from unbound elements: a prepositional phrase or an adverbial in the scope of an unprefixed VoM. However, the most frequent path combination by far is a double-segmented clause. The total of 580 path clauses in the Russian frog dataset consists of one bound and one unbound element, i.e. a prefixed verb and a prepositional phrase or an adverbial. Paths that have 3 components were used 18 times and consist of a prefix plus two unbound elements. Figure 6 graphically represents path segmentation in the Russian frog stories.

\[^1\] Included in this count are 130 VoM with the meaning of “setting off”. As discussed in Chapter 3, the closed class of paired VoM in Russian form inchoatives from the prefix *po-* with the resulting meaning of “setting off” (i.e. *poshel* [*po-* + *go*] ‘set off walking’, *pobezhal* [*po-* + *run*] ‘set off running’.
To narrate the Bean story, L1 Russian participants used 2956 bound and unbound path segments from which they formed 2187 path clauses. The high number of the path clauses indicates that in the Bean narratives, paths are less segmented than they are in the Russian frog stories. In fact, while the number of the VoM with bound prefixes-satellites is high (1885), 1125 of these verbs do not have any unbound path descriptions in their scope, i.e. they were not used together with prepositional phrases or adverbials. Therefore, 1125 simple paths were used by L1 Russian speakers to tell the Bean stories. Double-segmented clauses consisting of a prefix-satellite and an unbound element are slightly less frequent than simple paths: 751 path descriptions of the Bean narratives include two components. Additional simple paths (302) consisting of one component were formed from the combination of an unprefixed verb plus a prepositional phrase or an adverbial. Only 9 path clauses in the RMC accumulated 3 segments. Figure 7 graphically demonstrates distribution of path segments in the L1 Russian Bean narratives.

![Figure 7. Distribution of path elements in RL1 Bean narratives](image)

The RMC, similar to the L1 English corpus, contains a low percentage of complex paths
Slobin’s 2005b study reports that 76% of Slavic participants used 3 segments or more to describe a particular scene from the frog story book. While the study seems to suggest that this might be a habitual pattern for path segmentation in Slavic languages, the present project fails to confirm Slobin’s finding.

Summary

All of the frequencies calculated in this section are summarized below in Table 1.

<table>
<thead>
<tr>
<th>Corpus</th>
<th>EMC</th>
<th>RMC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dataset</td>
<td>Frog</td>
<td>Bean</td>
</tr>
<tr>
<td>Corpus size, words</td>
<td>10,585</td>
<td>20,846</td>
</tr>
<tr>
<td>Narrative length, words</td>
<td>353</td>
<td>353</td>
</tr>
<tr>
<td>VoM, tokens</td>
<td>645</td>
<td>1,635</td>
</tr>
<tr>
<td>Density of VoM per corpus, %</td>
<td>6.2</td>
<td>7.8</td>
</tr>
<tr>
<td>Distribution of path segments, %</td>
<td>1 sg. - 81 2 sg.- 18 3 sg. -1.1</td>
<td>1 sg. - 81 2 sg. - 17 3 sg. - 2.1 4 sg. - 0.13 5 sg. - 0.07</td>
</tr>
</tbody>
</table>

These results show that while the two L1 corpora are comparable in terms of size, the Russian corpus is more saturated in terms of motion descriptions. L1 Russian speakers, on average, used more VoM in their narratives than the English-speaking participants. The RMC also contains more path segments than the EMC (4379 vs. 2645). Figure 8
represents the cumulative number of motion elements in the two corpora (unbound and bound path elements as well as VoM).

![Figure 8. Number of motion elements in the corpora](image)

Thus, to render the same events, the Russian speakers constructed more “motion-dense” narratives than the speakers of English. The RMC contains more tokens of VoM (by 32%), and more path segments (by 41%) that the EMC. In terms of motion density per narrative, on average there 79 motion elements per story in the RMC and 57 in the EMC.

The two corpora also differ in the number of path clauses (as opposed to path segments that form clauses). As mentioned earlier, the RMC contains 3012 path clauses and the English corpus 2173 (a difference of 28%). This is the result of an unexpected (based on the previously reported data) finding: path descriptions in the English corpus predominantly consist of one-component paths (81%), while the Russian stories have a higher percentage of paths that include two path segments. With regard to Russian, however, the results are more mixed. While overall, Russian speakers used more double-segmented paths, in the Bean narratives they only add up to 34% of all path clauses,
while in the frog stories paths with two components are prevalent and constitute 70% of all path descriptions. This discrepancy is discussed later in the chapter and is attributed to the difference in plot between the frog story and the Bean episodes. The difference can also be attributed to the task type. When narrating the frog story the participants were leafing through the book, i.e. they might have felt more compelled to describe each individual page which resulted in more elaborate path descriptions. The Bean narratives are a different medium, i.e. post-screening recalls, and as such contain more succinct and dynamic descriptions of each individual event than a still pictured story book. Overall, however, L1 Russian speakers used almost twice as many double-segmented path clauses as the English narrators did. Both of the L1 corpora, however, have a very low number of multi-segmented descriptions (3 or more); on average, only 1.8% of paths in the EMC and 0.8% in the RMC consist of multiple components. These data, therefore, indicate that while “heavy” path segmentation can be compacted into a single clause in S-framed languages like English and Russian, complex path descriptions may not be characteristic of oral genres.

5.2.3. Variety

Motion verbs

The analysis of the L1 corpora in terms of variety (i.e. types) of motion elements further distinguishes the two languages in how they encode motion meanings. In terms of motion verbs, 67 different types of motion verbs were retrieved from the frog stories narrated by L1 English speakers, and Bean stories are more varied: 114 types of VoM were used by English speakers to narrate Mr. Bean’s adventures. The VoM repertoires
employed in the two stories partially overlaps; thus, the total number of motion verb types employed in the EMC equals 139.

As for the Russian dataset, 281 types of VoM were used by the participants in the frog narratives, and 322 types of VoM appeared in the Bean stories. Considering the overlap between the two stories, the total number of different VoM types found in the RMC is 398. Figure 9 offers a sharp visual contrast between the EMC and the RMC in terms of the VoM variety.

It should be pointed out that imperfective and perfective pairs in the Russian data were counted as one verb type, e.g. *padat’* [impf.] and *upast’* [pf.] ‘fall’ were counted as one verb, even in the cases were the imperfective and perfective verbs are derived from different roots as in *brat’* / *vziat’* ‘take’, *sadit’sia* / *sest’* ‘sit down’, *klast’* / *polozhit’* ‘lay’. Counting both verbs in aspectual pairs would double the gap between the two languages and inappropriately skew the comparison, because both the imperfective and the perfective counterpart in an aspectual verbal pair encode essentially the same lexical
concept. On the other hand, *Aktionsarten*, i.e. prefixed procedurals derived from VoM meanings were considered as distinct types because of the different procedural nuances of motion events that they encode. This means that, e.g., “simple” imperfective verb *prygat’* ‘jump’, a delimitative *po-prygat’* [deliminative *po- + jump] ‘jumped repeatedly for a short while’, and an inchoative *po-prygat’* [inchoative *po- + jump] ‘set off by jumping’ were counted as different verb types.

While the 139 types of motion verbs found in the EMC is impressive for narratives that portray motion events in three rather short stimuli, they constitute only 35% of the VoM types retrieved from the RMC. Except for the borrowed Latinate verbs *enter* and *exit* in English (as well as such low manner verbs as *go, come*, and *get*), most of the verbs in the corpus encode various nuances pertaining to the manner of motion. In Russian (as discussed in Chapter 3) even low manner verbs like *idi* [uni.] and *khodit’* [non.] ‘go’ cannot be referred to as “basic” manner verbs, due to their greater specificity (motion on foot not by vehicle) and directionality in space. Therefore, all Russian verbs can be assumed to encode manner nuances. Nevertheless, in contrasting English and Russian verbal lexicons, it is important to bear in mind that in Russian several types of motion verbs can be formed from the same motion root when a path prefix is added onto the motion stem. This results in two different verbs which, however, refer to the same manner concept while encoding different path or procedural nuances. In other words, one could argue that, stripped of their prefixes, complex VoM render virtually the same manner of motion as the unprefixed verb from which they are derived.

To contrast the variety of manner verbs in English and Russian, I conducted an

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They are low manner in the sense that they portray common types of motion events as opposed to high manner events such as *skip, trudge, hop.*
alternative manner count in which several VoM with the same manner root were counted as one type. Thus, for instance, all VoM derived from the verb idti such as as vy-iti [out-go] ‘leave’, pri-iti [to-come] ‘arrive’, so-iti[down-go] ‘step down; descend’, podo-iti [upto-come] ‘approach’, vo-iti [in-go] ‘enter’, obo-iti [around-go] ‘go around’, oto-iti [away from-go] ‘step aside’, vy-iti [out-come] ‘come out’, za-iti [boundary crossing-go] ‘come in/behind’, do-iti [up to/till-come] ‘reach’ were counted as one verb type. Additionally, I counted non-reflexive and reflexive verbs (distinguished in Russian by a reflexive suffix –sia) with the same root as one manner type, e.g. kidat’ ‘throw’ and kidat’-sia ‘throw oneself / dash / rush’ were considered to be one manner type. In the few cases in which motion roots merge with prefixes and/or the reflexive suffix to coin motion verbs with novel motion concepts, such verbs were counted as separate entries, e.g. nosit’ ‘carry’ vs. s-nosit’ ‘knock down; destroy’, or tolkat’ ‘push’ vs. s-talkivat’-sia ‘slam together’.

Based on the alternative variety analysis, I counted 177 different manner concepts that were employed by the L1 Russian speakers in their Bean and frog narratives (as opposed to 139 types of VoM found in the EMC). Thus, not only is the variety of the overall VoM repertoire impressive in Russian (398 types), but the types of “pure” manner concepts (devoid of path and procedural nuance encoded by prefixes) found in the RMC are more varied in comparison to the EMC variety count (by 21%).

Yet, the “pure” manner count brings Russian and English closer to each other on the continuum of crosslinguistic manner saliency than the overall variety analysis which did not account for the diverging word-building mechanisms in the two languages. The results of the two manner counts attest that morphosyntax of an individual language is a
powerful variable, and as far as the semantic domain of motion manner in Russian is concerned, morphosyntax plays an important role in shaping it. As we’ve seen, it is affixation that allows us to extend the variety of VoM lexicon from 177 manner types to 398 VoM types with distinct motion concepts.

In reference to the VoM types in the RMC, an interesting question pertains to the use of “typical” VoM in Russian as opposed to the group of verbs that encode (non)unidirectionality. In the Slavic pedagogical literature only the latter group is typically covered, which appears to imply that (non)unidirectional verbs should play the leading role in encoding motion concepts in Russian. The analysis of the RMC reveals, unprefixed (non)unidirectional VoM are quite rare in L1 Russian narratives and account only for 4.5% of all VoM in the frog stories and 4% in the Bean dataset. Prefixed VoM derived from the unprefixed group of (non)unidirectional verbs are, on the other hand, very common in the RMC and account for 32% of all motion verbs in the frog stories and 31% of all motion descriptions in the Bean episodes. In fact, because the (non)unidirectional verbs easily combine with path prefixes, there are over a hundred types of all VoM in the RMC (out of 398 types). Thus, prefixed directional VoM do play an important role in the encoding of motion events in Russian, although the rest of the verbs in the RMC constitute the majority both in terms of frequency and variety. This finding carries direct pedagogical implications in terms of how the semantic domain of motion should be represented in textbooks. I will discuss this matter in greater detail in the concluding chapter.
Path elements

While Talmy (1985, 2000a, 2000b) points out that there are certain bound satellites in English, no verbs with prefixes-satellites were found in the EMC. The total number of the types of path elements employed by the English participants to express locative and directional meanings equals 39. Therefore, the repertoire for expressing path-related meanings in the speech of the English-speaking participants is rather sophisticated. However, rarely do these path elements combine to form complex types of paths. Slobin (2005a, p.122) cites a great number of complex satellite + prepositional phrase combinations that he believes are typical of English (e.g. down from, over into, over out of, from behind, out the back of, etc.). As already discussed earlier in the chapter, the frequency analysis confirms that complex paths are extremely rare in the EMC. In fact, among two-segmented path descriptions, out of is the most frequent combination in the frog and Bean stories. Of 115 double-segmented paths in the frog narratives, 65 of them include out of. Similarly, in the English Bean narratives, out of accounts for 103 two-component paths while the total number of such clauses is 267. In spoken language out of can also be considered as one path segment because the two words usually blend into one phonological form outta. This would make one-segment paths even more prevalent in the EMC (>90%). To, in, and up top the list of the most frequently used path elements in the EMC, which means that in the L1 English narratives such ground elements as the goal of motion (to the high dive; in the water) are described most frequently, followed by the expression of the source through the out of combination.

In Russian, path elements include prefixes-satellites, adverbials, and prepositions. The number of prefixes with motion meanings found in the RMC equals 19.
Additionally, 26 different prepositions and adverbials with locative and directional meanings were retrieved. A number of prepositions in the RMC have both locative and directional meanings (e.g. ‘in/at’ vs. ‘to’) due to their distinct thematic roles (marked by differences in case government). In terms of the path combinations that occur in the RMC, Figures 6 and 7 in Section 5.2.2 showed that path descriptions in which only unbound path elements are involved are relatively rare (12% in the frog stories and 14% in the Bean narratives). All other types of events include the help of prefixes-satellites (88% and 86%, accordingly), whether paths consist of one or multiple components. Among prefixes-satellites, the most frequent ones in the RMC are ‘out’, and ‘up to, approach’, while the most frequently used prepositional phrases include locative and directional ‘in’ and ‘on’. Thus, semantically there is an overlap in the preferred ground details encoded in English and in Russian (source and goal), even though the same concepts are rendered by different structures in the two languages and in Russian they co-occur more frequently in the scope of a single motion verb (i.e. significantly more path clauses in Russian can accumulate several path components).

Summary

Table 2 summarizes the results reported in this section of the chapter. The variety analysis shows that the number of various VoM types in the RMC greatly exceeds the variety count based on the L1 English data. However, in terms of the manner concepts that can be encoded by VoM in the two languages, Russian and English are more comparable. Devoid of prefixes (satellites and procedural) and reflexive suffixes, the VoM repertoire in the RMC is only 21% more varied in terms of manner encoding than
in the EMC. An important question that remains, however, is whether the types of manner verbs in the two corpora are comparable in terms of high manner nuances vs. more basic manner concepts expressed, for example, by such verbs as *come* or *go* in English. It is also important to establish the consistency with which L1 Russian and English narrators use complex and basic manner verbs. These issues will be addressed in Section 5.3 of this chapter.

Table 2. Variety analysis of the EMC and the RMC

<table>
<thead>
<tr>
<th>Corpus</th>
<th>EMC</th>
<th>RMC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dataset</td>
<td>Frog</td>
<td>Bean</td>
</tr>
<tr>
<td><strong>VoM, types</strong></td>
<td>67</td>
<td>114</td>
</tr>
<tr>
<td><strong>VoM, manner count, types</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unprefixed directional VoM, %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prefixed directional VoM, %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Path elements, types</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>Paths consisting of unbound elements only, %</td>
<td>100</td>
<td>12</td>
</tr>
</tbody>
</table>

5.2.4 Aspectual contouring

As Chapter 3 discusses, both English and Russian encode aspectual distinctions grammatically and lexically. In terms of the formal marking of grammatical aspect, English encodes progressive and non-progressive events in addition to perfect and imperfect aspect. Structurally, the two aspects in English are distinguished through the

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1 The total number accounts for the overlap between the frog and the Bean datasets.
use of the auxiliary verb *have + V-ed* (e.g. *Another car has boxed him in*) participle to mark perfect aspect, and the progressive aspect is marked by the auxiliary verb *be + V-ing* (e.g. *Mr. Bean is pulling into a parking garage*). Earlier corpus studies (Biber et al., 1999) found that the overwhelmingly common aspect in English is “zero” aspect, i.e. non-progressive and non-perfect forms of the verb, particularly in oral genres. On the other hand, several studies reporting on the aspectual characteristics of English motion talk (Slobin, 2003b; cf. Berman & Slobin, 1994) have suggested that speakers of English - an aspect rich language – show greater attention to the temporal overlap between events as well as to aspectual contours of events than speakers of languages that lack a formal system of morphological marking of aspect (like German and Hebrew). However, even though Russian does not formally encode progressive, grammatical aspect (i.e. +progressive and +perfect) in the EMC is used rather infrequently in motion descriptions.

I analyzed the expression of motion events in the EMC and the results confirm the previous corpus-based findings of Biber et al., i.e. “zero” aspect is predominant in the descriptions of motion events by L1 English participants (81%). Progressive aspect is the second most common type –19% of all motion descriptions in the EMC. The speakers resorted to the simple perfect (have + V-ed) constructions 3 times in the frog stories and 7 times in the Bean narratives, and 2 motion events (less than 1% cumulatively) in the Bean dataset were framed through present perfect progressive (*have + been + V-ing*). Figure 10

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1 While +/- perfect in English and perfective / imperfective in Russian are not claimed to express the same aspectual distinctions, both systems are acknowledged to form their own aspectual oppositions (Bussmann, 1996; Kozintseva, 1985; Maslov, 1985; Matveyeva, 1985). English perfect aspect marks actions or processes in relationship to prior situations and focuses on their ensuing relevance. Russian perfective / imperfective aspectual opposition highlights the inner boundaries of actions by describing their beginning, completion or the course of their performance (cf. Biber et al., 1999; Forsyth, 1970; Pavlenko & Driagina, 2006; Zalizniak & Shmelev, 2000).
represents the composite of the motion events in the EMC from the point of view of grammatical aspect contouring.

In Russian aspectual contouring is more prominent than it is in English due to the fact that 100% of verbs are formally marked either as perfective or as imperfective. Additionally, various Aktionsarten (i.e. inchoatives, delimitatives, absorptives, resultatives, etc.) can express a range of procedural nuances that can only be rendered by means of a circumlocution in English. Aspectual contouring of motion events in the RMC is therefore provided in 100% of all motion descriptions. The majority of all verbs in the frog stories are perfective (69%), and 55% of the motion events in the Bean narratives are also marked as perfective. Notwithstanding the aspect preferences, the conclusion is that even though English has the grammatical categories of both +/-progressive and +/-perfect, the obligatory nature of aspect marking in Russian contributes to fact that in the RMC aspectual contouring was consistently provided by the speakers of Russian in reference to every motion event, while in the EMC only 20% of motion events are
marked as + progressive or + perfect.

5.3. Discussion

To reiterate, the goal of this chapter is to answer the first two research questions, i.e., to establish which specific linguistic structures are characteristic of Russian and English motion talk in terms of lexical, morphosyntactic, semantic, and aspectual choices made by the L1 speakers of these languages. While learner motion talk may be the primary focus of the investigation, the RMC serves as a benchmark for determining how motion events are encoded by L1 Russian speaking participants, thus providing a foundation for the L2 Russian learner motion talk analysis. The description of the EMC, on the other hand, serves as the basis for evaluating crosslinguistic influences in the learner speech from English, the learners’ L1 (Chapter 6).

5.3.1. Motion manner

As the quantitative data from the L1 corpora analysis shows, VoM are the nuclei of the lexicalization patterns for expressing motion in both English and Russian. Since both languages are S-framed, as expected VoM play the role of encoding motion manner. In fact, a great variety of VoM types were found in each of the corpora: 139 types in the EMC and 177 “pure manner” types in the RMC. Both corpora contain verbs that express such types of movement as “sliding”, “saccadic”, “destructive”, “climbing”, “falling”, “forceful”, “secretive”, “instantaneous”, “slow”, “rapid”, “with obstacles”, “in non-solid environments”, “by conveyance”, etc. The L1 corpora demonstrate that both English and Russian have rich lexicons for encoding manner of motion. It is still unclear, however,
how *habitual* it is for the speakers of the two languages to encode complex manner concepts vs. more basic manner events.

The list of English manner verbs illustrates that most of the verbs on the list are high manner verbs, e.g. *dangle, crawl, creep, ram, scoot, stumble, wiggle*, etc. Yet the list also includes several borrowed Latinate verbs characteristic of V-framed languages, such as *enter and exit*, although the use of these verbs is infrequent (11 tokens) and limited to the contexts in which path is foregrounded, e.g.

1) *He's now walked over to where the ticket comes out when you enter the parking garage.*

2) *Another car came in to enter and it's blocking him.*

3) *The scene opens (check quote – s-v agreement) with him/Mr. Bean going to exit the parking lot.*

Other verbs in the EMC that express low manner or path include *come, go, get, move, approach, appear, leave, open, close, lower (oneself), end (up somewhere), back (up), and reverse*, which, in terms of frequency, account for 51% (1151 out of 2,280) of VoM tokens in the English corpus. Among the verbs listed above, *come, go, and get* are the most frequent ones. The number of the tokens of these verbs constitutes 261, 339, and 323, respectively. This suggests that while English does have the means for expressing rich nuances pertaining to manner of motion, English speakers may opt *not* to encode fine manner distinctions and to use a basic manner verb instead. There is a scene in the frog story that serves as a convincing illustration. The scene depicts an owl emerging from a hole in the tree flapping her wings and scaring the boy off the tree branch (the scene has

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1 The verb *get* was tagged and retrieved as a VoM only when it is used in its motion sense (*e.g. get up the slide, or get the dog and leave* as opposed to the contexts where *get* is used to refer to an emotional state (*get scared*) or as a synonym of make (*e.g. get the dog to leave*).
been used as a context favorable for contrasting V-framed and S-framed languages, cf. Slobin, 2003b). Figure 11 summarizes the choices made by the L1 English speakers in their descriptions of the scene which depicts the emergence of the owl.

To depict the scene, 30% of the English participants chose a non-basic manner verb with a path particle to depict the scene, e.g.

4) *an owl sticks out of the hole*

5) *an owl […] flies out of the tree*

6) *an owl popped out of the hole*

7) *the little boy has an encounter with an owl who knocks him off the tree.*

However, 50% of the participants chose to say that an owl *came out* of the tree, i.e. they preferred the low manner verb *come*. Other less frequent choices include a locative construction (*there’s an owl in the hole in the tree*), an instantaneous verb (*an owl appears from the hole*), and omission of the owl emergence – the speakers focus either on the fact that an owl *scared* the boy or moving on to following scenes (i.e. the boy falls
from the tree / the boy is being chased by the owl).

Slobin reports in his 2003b paper that speakers of Germanic languages participating in his study also used descriptions rich in manner relatively infrequently (32% in English) to describe this particular scene. Slobin (2003b) hypothesizes that *come out* is the most economical choice in English. He believes that if English narrators were to combine manner and path in their descriptions of the scene, they would be “in the same position as speakers of V-languages” (p.8), i.e. they would have to use an extended construction such as *come flying out* which is lengthy and would make motion descriptions more difficult to access and process; hence the preference for the more economical choice. However, manner rich options as *stick/fly/pop out* are not much different from the preferred construction *come out*, and should be just as easy for access and comprehension for L1 English speakers if manner is in fact encoded as habitually as it is currently believed (English is often discussed as the benchmark language for habitual encoding of manner; see Chapters 2 and 3). The EMC data suggest that it is more plausible to classify English as a language that is characterized by rich manner of motion lexicon and yet optional encoding of complex manner nuances. In fact, English speakers can choose between complex manner verbs (e.g. *creep, smack, sneak, wiggle* in the RMC), low manner verbs (as *walk, run, or climb*), or even empty manner verbs like *come* (as in the scene with the owl’s emergence) depending on either their communicative intentions of emphasizing manner vs. path or based on manner salience in the stimuli. The EMC shows that with 49% of all VoM being high manner verbs, expression of manner in L1 English can be described as frequent but not consistent. Just because English has a wide repertoire for expressing motion manner does not automatically mean
that high manner verbs are preferred by L1 English speakers, at least in the context of the elicitation tasks used for the purpose of this project. It is plausible that the depiction of the motion events in the stimuli was not compelling or vivid enough for the English speakers to use high manner verbs, and if more manner-salient stimuli had been used, speaker preferences in terms of emphasizing manner over path and vice versa could have been different. What matters for the current investigation, however, is how L1 Russian speakers encoded motion in the context of the same elicitation tasks.

If the owl scene is a representative illustration, 71% of L1 Russian participants chose to use a high manner verb (see Figure 12) to describe the owl’s emergence, e.g.

8) *iz dupla vy-letela ogromnaia sova*
   ‘from the hollow flew out [out-flew] a huge owl’

9) *iz dula neozhidanno wy-skochil filin*
   ‘from the hollow unexpectedly jumped out [out-jumped] an eagle-owl’

10) *iz dereva vy-lezla sova*
    ‘from the tree out-crawled an owl’

However, 29% of the narratives did not contain rich manner descriptions. Fourteen percent of the narrators used instantaneous path verbs *poiavit’sia* ‘appear’ *pokazat’sia* ‘make an appearance’. Eight percent of the descriptions circumlocute the motion event (e.g. *sova ispugala mal’chika* ‘an owl scared the boy’; *mal’chik nashel sovu* ‘the boy found an owl’) and 7% used a locative construction with *to be* (*v derevtse byla sova* ‘in the tree there was an owl’).
Therefore, in the RMC manner of motion is highlighted in the majority of the narratives (71% vs. 30% in the EMC), while path descriptions are acceptable as well. However, what we do not find in the RMC are instances of basic manner verbs like come preferred by the L1 English narrators. None of the Russian participants used the verb vy-
khodit’ [imp.] or vy-iti [pf.] ‘come out’ which are found in the RMC but in the contexts referring to motion on foot only, i.e. the semantics of these verbs is more limited in Russian than it is descriptions. Thus, all non-path verbs used for the description of the owl scene in the RMC are manner specific, since “empty” manner verbs like come or get are absent in Russian.

A similar conclusion can be drawn in reference to other more manner-salient episodes. For example, in one scene in the frog story we find the frog sneaking out from the jar while the boy is sleeping. Several Russian speakers either simply stated the fact of disappearance (e.g. liagushka ischezla ‘the frog disappeared’) or specified manner of motion (e.g. liagushka vy-prygnula / u-bezhala / u-skakala / vy-karakkalas’ / vy-lezla / vy-
kralas’ ‘the frog jumped out /ran away/ jumped away/ clambered out / climbed out / sneaked out’). In the EMC, the frog’s disappearance is also described through high manner phrases (including sneak out, creep out, climb out, and jump out); however, basic manner verbs appear to be equally appropriate, e.g.

11) His pet frog comes from his jar. In the morning, the little boy discovers that the frog is gone.

In fact, although L1 English participants produce lengthy and detailed narratives, their motion expressions are often not manner specific. For example, consider the following excerpt from one of the English narratives based on the Bean episode in the swimming pool:

12) …Umm it started off with uhh with a guy coming in. It looked like a mini cooper car. And he came into a parking garage. And uh he came too far away from the gate to get a ticket as most people do. So he used a reacher um that they use in therapy to get a/the ticket. And then he finally got it and he went in. I guess he was spending the day at the pool. And um when he got there he was attracted to these two pink elephant um sliding boards into the pool. They looked like they were there for kids and then he went up to them and then he was like touching them feeling them. And then he got up. And as he was going down the lifeguard saw him and blew his whistle. And I guess it scared him so he tried really hard not to fall in the water. And so he got back out and left. And then his eyes got really big when he saw the really high dive. And he thought this was pretty cool so he went all the way up and there when he looked overboard he saw that/how far he was. He got really scared. And as he was gonna come off the dive boards these two kids came up…

While Mr. Bean’s movements and behavior stand out as rather out-of-the ordinary and amusing when one watches the clip, the participant who produced the excerpt cited above was not compelled to encode manner in any great detail. Even in the scenes in which manner could be rendered by such verbs as drive, climb, crawl and slide, the participant consistently preferred basic manner descriptions. It appears that while the use of high manner verbs is licensed in English, in the contexts which are characterized by a fast-
paced plot and quickly changing locations (as is the case with the elicitation tasks used in this study), basic manner verbs are often used. The function of the basic manner verbs in English may be to move *path* to the forefront thus focusing on the *progression* rather than *elaboration* of the storyline (which is achieved through the use of manner verbs).

Whatever the reason might be, the fact is that manner in English *can* be optional even when a non-path verb is used\(^1\).

Russian, on the other hand, has been described in the Slavic literature as lacking basic manner verbs (Chapter 3). The narratives in the RMC in fact do not contain the exact equivalents of such basic manner verbs as English *get*, *go*, or *come*. As far as the verb *get (somewhere)* is concerned, there are a few verbs in Russian with the root *–bir*- that appear to correspond to it roughly, i.e. *do-birat’sia* ‘get somewhere / reach a destination’, *za-birat’sia* ‘get up / climb up’, and *vy-birat’sia* ‘get out’. However, as Shemelev & Levontina (2000) point out, these verbs indicate that one has to overcome *obstacles* to get to the destination. They (ibid.) suggest that the etymology of the VoM root *–bir*- is motivated by the reality of Russian road conditions throughout its history. Because of great distances, roads have historically been in poor condition in Russia; therefore, reaching a destination entails overcoming obstacles. In fact, in the RMC the above mentioned verbs with the root *–bir*- are used 32 times (in contrast to 323 tokens of *get* in the EMC) and are limited to the contexts in which the path is somehow obstructed, e.g.

\(^1\) Considering that all of the participants were college-age, it is plausible to suggest that reliance on such verbs as *go*, *come*, and *get* may be a characteristic of the youth talk in American English. Further corpus studies of motion talk are needed to confirm this hypothesis, however. For the purpose of this comparative analysis an important finding is that Russian participants (also college age students) did not rely on basic manner verb to refer to high manner scenes.
13) V rezul’tate on umudriaetsia vytashchit’ bilet iz avtomata [...] i udachno dobiraetsia do basseina.
‘As a result he manages to pull a ticket out of the machine [...] and successfully gets to [dobiraetsia] the pool.’ (in reference to the episode in which Mr. Bean struggles to get through the gate in the parking garage).

14) Mal’chik s nedovol’stvom omakhivalsia ot ogromnoi ptitsy i zabral’sia na ogromnyi kamen’ s nadezhdoi chto on spasiotsia ot ogromnoi ptitsy i sprachetsia.
‘The boy was waving the huge bird away with displeasure and got onto [zabral’sia] a huge rock with the hope of thus saving himself from the huge bird and hiding’.

Significant differences also exist between the use of the English verbs go and come and Russian verbs idti and khodit’ ‘go [uni./ non., respectively]’. Slobin (2003b, 2005) refers to the English verbs as expressing basic manner, and as the earlier examples from the EMC frog and Bean stories show they were often used by the L1 English narrators to encode changes of location rather than any specific type of manner of motion per se. Russian idti and khodit’ are different because, first of all, as (non)unidirectional verbs, they encode such nuances about motion events as directionality in space, actuality of motion, and information about progression of motion in time (Chapter 3). Secondly, in terms of manner nuances, these verbs in Russian are strictly restricted to (regular pace) motion on foot only. For instance, in the EMC verbs go and come are frequently found to refer to motion by vehicle as in (15):

15) So he [Mr. Bean] looks over and he sees the entrance where the cars are coming in. So he backs up and he’s gonna go out the entrance when a car comes in.

Similarly, English licenses the use of these verbs in reference to the movements of non-human objects, i.e.

16) And he [Mr. Bean] finally gets the ticket to come out and the bar goes up.

While theoretically in Russian idti and khodit’ can be used in reference to some mechanisms (e.g. chasy idut ‘the watch works [lit.: goes]’, none of the Russian...
participants opted to use these verbs to describe any of non-animate motion scenes through these verbs. To refer to motion by conveyance only the verbs *ekhat’* and *ezdit’* ‘drive [uni. / non., respectively]’ (as well as other high manner verbs as *mchat’sia, gnat’, nestis’* all signifying rapid motion) were used in the RMC. The frequency count reveals that the verb *drive* was used 64 times in the EMC vs. 427 tokens of motion verbs derived from the *ekhat’ – ezdit’* pair in Russian. The difference is quite dramatic and demonstrates that English licenses the use of basic manner verbs to refer to motion by conveyance, while Russian does not. The analysis of the L1 corpora provides the grounds to claim that Russian is further up than English in the manner salience continuum, even though they are both S-framed languages and have the lexical means to encode fine manner distinctions. The choice of a high manner vs. basic motion verbs in English appears to be dependent on the speaker preference and perspective. Russian verbal lexicon does not offer a choice due to the specificity of manner concepts that verbs obligatorily encode. The next example is a good illustration as it includes a sequence of back-to-back motion events in which the speaker shifts from expressing manner to foregrounding path:

17) And so he figured/ I think he drove back and figured he was just gonna bust through, then he saw another car coming in and waited until the gate opened and then flew by really fast, and got out, and didn’t pay the charge.

And while English permits such switches in bringing manner of motion in and out of focus (i.e. a manner verbs like ‘drive’ vs. a basic manner verb like ‘come’ to refer to the same type of motion events), Russian does not. The absence of empty manner verbs in the RMC supports the claims made by Slavonic linguists that Russian VoM obligatorily encode manner. As the discussion on this section has shown, even low manner verbs in
Russian that roughly correspond to English verbs *come, go or get (somewhere)* have a narrower semantic field in terms of the manner nuances and contexts in which their use is applicable. Therefore, what *can* be encoded in English, *must* be encoded in Russian unless a motion verb is a pure path verb such as *poiavliat’sia* ‘appear’. Possibly, other elicitation techniques could compel L1 English users to employ a higher number of high manner verbs, but based on the contrastive analysis of the EMC and the RMC data, we have to conclude that the encoding of manner in English is less habitual than it is in Russian.

### 5.3.2. Path of Motion

S-framed languages differ from V-framed language in that they encode manner on the verb and path on the satellites, while in V-framed languages the verb encodes path information. Both English and Russian, as S-framed languages, do encode manner on the verb and express path though unbound elements such as prepositional phrases and adverbials. However, lexicalization patterns for encoding motion in the two languages differ.

Path descriptions in the EMC do in fact display a classic S-pattern: VoM have in their scope such unbound elements as satellites, prepositional phrases or adverbials that can be used individually or accumulated together to form a complex path clause, e.g.

18) *Mr. Bean’s pulling [@1] up in his crazy car again.*

19) *The boy and the dog get [@1] away [@2] from the house and [@3] into the woods.*

Because English is an analytic language with rather strict syntactic rules, most of the path

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1 The tag *[@]* marks path segments; numbers inside tag brackets signify the consecutive number of a path segment within a path clause.
segments in the EMC directly follow the verb except for the few cases with stylistic inversion as in (20):

20) *The deer stops and [@1] over the cliff goes the boy and the dog [@2] into the water.*

The Russian lexicalization pattern for encoding motion meanings is more complex, as it involves more than one “formula” for building path clauses. One of the formulas is identical to the lexicalization pattern characteristic of English, i.e. unprefixed VoM + unbound clause(s). However, path descriptions that consist of unbound segments account only for 13.3% of all path descriptions in the RMC (as Section 5.2.3 showed). The remainder of path descriptions in the RMC, i.e. 86.7% of all path segments, includes the use of bound prefixes-satellites.

The available pedagogical literature for RL2 learners does not describe in which contexts prepositional phrases and/or an adverb (i.e. unbound path elements) should be used and which contexts require path prefixes. However, Filipović (2006) has introduced the notion of deixis in the lexicalization of motion events which carries explanatory power with regard to the question of when prefixes-satellites should be used in Russian. Filipović (ibid.) analyzes Serbo-Croatian motion talk, yet her analysis can be extended to Russian. She suggests considering the role of *boundaries* in motion events, where boundary is defined as “a physically and perceptually salient element, i.e. a physical boundary that is to be overcome (in the case of *boundary-crossing*), reached (in the case of *boundary-reaching*) or is non-existent (in *non-boundary-crossing*)” (ibid, p. 155). Applied to the analysis of the motion events in the RMC, Filipović’s boundary roles

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1 Based on the RMC data, I believe that the definition of the boundary should be extended to include abstract boundaries which may not be physically present but conceptually salient. For instance, the motion event of climbing a tree entails crossing an abstract vertical boundary between being on the ground and in the tree.
dictate that in Russian unbounded paths are characteristic of non-boundary-crossing situation types (as in (21)), and prefixes-satellites are required when path descriptions include boundary-crossing (22) and boundary-reaching (23).

21) \textit{V eto vremia <@	extit{1}>za sobachkoi gonialas’ staia pchel.} \\
‘At that moment a swarm of bees was chasing [after] the dog.’

22) \textit{Ulei upal i <@	extit{1}>ot-tuda <@	extit{2}>vy-leteli pchely.} \\
‘The beehive fell and from there [from-there] flew out [out-flew] bees.’

23) \textit{[Bin] <@	extit{1}>pod-khodit <@	extit{2}>k kraiu vyshki i vidit chto voda ochen’ daleko.} \\
‘[Bean] comes up to [approach-went] to edge of the high dive and sees that the water is very far away.’

Considering that the visual stimuli used in the study contain numerous types of boundary crossing and reaching, it is not surprising that the overwhelming majority of path clauses in the RMC include bound satellites.

There are several exceptions to the rule outlined above according to which boundary-crossing and boundary-reaching motion events require the use of prefixes-satellites. As discussed in Chapter 2, in V-framed languages manner can be encoded by VoM in non-telic, i.e. non-boundary-crossing motion events. In Russian, manner and path can generally co-occur; however, it appears that the higher the manner encoded by the verb, the lower the chances are for this VoM to combine with prefixes-satellites, i.e. manner takes precedence in the descriptions of motion scenes in which manner nuances are particularly salient. For example, such onomatopoeic high manner verbs as \textit{pliukhat’sia} ‘topple in the water with splashing’ and \textit{babakhat’sia} ‘topple on a solid surface with noise’ are never prefixed in the RMC, even though boundary crossing is involved:

24) \textit{Mal’chik tak babakhnulsia, naverno on ruki nogi perelomal i byl v shoke.} \\
‘The boy had such a bad fall \textit{[babakhnulsia]} that he probably broke his arms and
legs and was in shock.’

25) Poleteli mal’chik s sobachkoi vmeste i pliukhnulis’ v vodu.
‘The boy and the dog flew [set off-flew] and toppled [pliukhnulis’] in the water.’

Thus, there appears to be a continuum of VoM combinability with path prefixes in Russian, and the richer the verb is in manner nuances, the lower its combinatorial possibilities are for encoding path through prefixes. And while some verbs can combine with up to 19 different prefixes (and the (non)unidirectional group of VoM is particularly productive), many manner verbs are more resistant to motion prefixation.

Another exception to the rule are a few VoM with the inherent semantics of downward boundary crossing such as, for example, padat’ ‘fall’ and nyriat’ ‘dive’, which were not found in the RMC in a logical combination with the prefix s- ‘down from’ but were used unprefixed, e.g.

26) I zdes’ on padaet v rechku.
‘And here he falls in the river.’

However, in the contexts which describe less generic paths (non-downward), prefixes-satellites are consistently used with such verbs, e.g.

‘He [Bean] dove out [out-dove] with a lot of noise’.

In short, except for the few exceptions addressed above, boundary-crossing and – reaching motion events in Russian involve encoding of path through bound elements (prefixation). So far, therefore, two lexicalization patterns for encoding motion meanings have been described. The first pattern involves a VoM + and unbound path clause; such a pattern appears to be the only possible pattern in English, it but can also be found in non-

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1 There appears to be some confusion in the RMC about the verb pryagat’ ‘jump’. Thus, the scenes in which Bean jumps in the pool were expressed by the Russian narrators both through the use of the unprefixed verb pryagat’ ‘jump’ (75 tokens) or and through the prefixed verb s-prygnut’ ‘jump [from-down-jump]’ (36 times).
boundary crossing motion events in Russian, albeit infrequently. The second lexicalization pattern identified in the RMC data consists of a VoM and a bound prefixes-satellite added onto it (as in (28)) and involves a boundary-crossing or –reaching situation type.

28) Mashina <@1>pod’-ezhaet, on razgoniaetsia, nachinaet <@1>ot’-ezzhat’, eh <@1>vy-ekhal, mashina pia/nachinaet tozhe piatit’ sia i oprokidyaetsia. Nu vot tak on <@1>u-ezhaet, ne zaplativ deneg.

[A car drives up [approach-drive], he gains speed, starts driving backwards [from-drive], eh he drove out [out-drove], the car ba/begins backing up and flips over. Well that’s how he leaves [away-drives], without paying.’

The third type of the lexicalization pattern for encoding motion found in the RMC includes a motion verb with a bound prefix-satellite and a concomitant unbound segment(s). The third type of pattern is predominant in the Russian frog stories; 72% of all path clauses in the Russian frog stories contain a combination of bound and unbound elements (Section 5.2.3). In the Bean stories, prefixes-satellites are found in 85.4% of all path descriptions, but only 34.3% of them are followed by an unbound segment(s). It is possible that the percentage of multi-segmented clauses would be higher in the Bean narratives if the episodes involved more changes in location settings (i.e. grounds). Whereas in the frog stories the settings change on every page (e.g. the boy’s room / forest glade / rock / pond, etc.), in the Bean films the locations remain constant: a slide and a high dive in one story and an exit/entrance to a garage in the other story. Because the settings remain unchanged, there is no need for the speakers to repeat the ground details, hence the infrequent use of the third type of lexicalization pattern which involves a prefix and an unbound phrase(s) in the Russian Bean dataset in comparison to the frog story. Curiously, the English narratives are unaffected by the differences in the location settings in the two stimuli: 81% of ground descriptions were limited to 1 segment or less in both
narratives types.

Based on the patterns characteristic of the motion descriptions in the EMC and the RMC, Russian motion talk appears to be more varied structurally in terms of the patterns that it licenses. Additionally, as the frequency analysis in Section 5.2 showed, L1 Russian narrators tended to build more sophisticated paths than English speakers in terms of the number of path segments per path clause. The percentage of path clauses that consist of at least two segments is 73% higher in the frog narratives and 44% higher in the Bean stories of the Russian speakers in comparison to the EMC.

I would like to argue that path segmentation is simpler in the EMC because semantically path concepts that can be encoded in English are less refined than those that can be encoded in Russian through the combination of prefixes and prepositional phrases. Due to the importance of deixis for the structure of the lexicalization patterns in Russian, prefixes and unbound path segments work as a conceptual unit which encodes information about how a motion event interacts with relevant boundaries (the role of a prefix) and further locates the event in relationship to the ground (the role of unbounded segments, i.e. prepositional phrases and adverbs). Thus, consider the following set of examples from the EMC and the RMC:

29) a. *The dog sticks* his head <@$1$>*inside* the jar.*

   b. *Sobachka zachem-to* <$1$>*za-sunula* golovu <$2$>*v* banku.
   ‘Here the dog stuck [in-stuck] its head in the jar for some reason.’

30) a. *Then the little boy climbs* <$1$>*on* the tree.*

   ‘In the meanwhile the boy climbed [on-climbed] [on] the tree.’

31) a. *The boy falls* <$1$>*on* the ground.*
b. *The boy*s-valilsia* na golovu oleniu.*
   ‘The boy toppled [down from] toppled on the head of the deer.’

32) a. *He is about to slide* down the slide.

b. *Deti s-katyvaiutia s vodianykh gorok v bassein.*
   ‘Children slide down [down from-slide] into the pool.’

Examples (29-32) illustrate patterns characteristic of English and Russian in terms of how they encode information about path and ground. In English a ground phrase is most often linked to the verb by a single path element (particle, preposition, or an adverb). In Russian, however, prefixes-satellites and prepositional phrases work as a unit: satellites render the specifics of interaction with the boundaries and prepositional phrases connect VoM with ground phrases by supplying ground-specific elements. Note that in (29b-30b) the same preposition *za-* is used to mark boundary-crossing: in (29b) the “boundary” is the opening of the jar that the boy sticks his head in; in (30b) it’s an even more abstract boundary between being on the ground vs. on the branch of the tree. The ground information (more specifically the goal of motion), is supplied by the prepositions *v* ‘in’ and *na* ‘on’ and further refined by the case assignment: the nouns in the ground phrase are assigned accusative case endings to mark their directional thematic roles.

The prefix *za-* is a good illustration of the close conceptual connection between the semantics of the prefix itself and the co-occurring unbound path clause. In fact, the range of meanings that the prefix *za-* can express is quite versatile. *Za-* is often translated as ‘behind’ in textbooks, and Gallant (1979) has defined it as expressing transgression of a horizontal spatial plane. However, the RMC narratives suggest that the prefix may signify the generic concept of “motion past/beyond boundaries” – either vertical or horizontal. Thus, VoM prefixed with *za-* were used by the L1 Russian narrators to refer
to motion paths directed

- **inside an enclosed space**, e.g. the dog sticking its head *in* the jar (29b), the boy looking for the frog *in* the boots (*za-lezal* *v* *sapogi*) or *inside* the hole in the ground (*za-lez* *v* *norku*) and climbing in the hole in the tree (*za-bralsia* *na* *derevo*);

- **onto another object**, e.g. the boy climbing a tree (30b) and a rock (*za-lez* *na* *kamen’*), Mr. Bean getting up the high dive (*za-lez* *na* *vyshku*) and a slide (*za-lez* *na* *gorku*);

- **underneath another object**, e.g. the boy and the dog looking for the frog under the bed (*za-lezli* *pod* *krovat’*);

- **behind another object**, e.g. the dog going behind the rock (*za-shel* *za* *kamen’*), the boy and the dog hiding behind the rock (*za-tailis’* *za* *kamnem*) and peeking behind the log (*za-glianuli* *za* *koriagu*).

Note that in the examples above, different prepositions are used in conjunction with the prefix *za*- specifying the motion grounds and defining the concept the prefix expresses. In the above cases the use of both the bound and the unbound segments appears to be almost necessary for assisting the listener in interpreting the intended motion meaning correctly.

Examples (31-32) from the EMC and the RMC offer further evidence for the claim that in Russian prefix-preposition units supply path concepts more sophisticated than English verb + preposition combinations. In the previous two examples (29-30), the ground phrase contained information about the goal of motion. In (31-32) the path is implied to be directed downward, but the semantics of ground is different: in (31) the ground phrase encodes the goal of motion again, while the latter excerpt locates the motion event in relationship to a linear substrate along which the motion event unfolds.
L1 English speakers linked manner verbs with single ground elements (on and down), i.e. downward movement was overtly encoded only in (32a). In the Russian excerpts, prefix s- ‘down from’ encodes the direction of motion path, i.e. downward movement off a certain ground source both in (31b) and (32b). Then ground differences are distinguished by the prepositions na ‘on’ and s ‘down from’. The specifics of the ground meanings are further differentiated in Russian by means of case assignment: in (31b) the noun phrase is assigned accusative case and in (32b) it receives a genitive ending. The resulting motion descriptions in Russian are therefore more complex both in structural (more segments involved) and semantic (more concepts encoded) terms. Jumping ahead to the topic of RL2 learner motion talk, it is logical to expect that RL2 learners whose L1 is English will find it difficult to switch into the new motion talk system with intricate and varied lexicalization patterns and a greater number of motion concepts (such as interaction with boundaries) that need to be attended to constantly.

The fact that prefixes-satellites form a strong semantic bond with the co-occurring path segments explains the higher frequency of double-segmented paths in the RMC in comparison to the EMC. Yet, at the same time this bond limits the number of segments that can be semantically in sync with the prefix in Russian. As the count of path segments showed (Section 5.2), the maximum length of a path clause found in the RMC is 3 segments. In the EMC, while path clauses with 3 segments or more are rare, they do occur. The longest clause in the English corpus contains 5 segments:

33) He [Bean] raced <@1>off <@2>out <@3>into the street <@4>out <@5>of the parking garage whereby the three-wheeled car flipped over.

To reiterate, however, multi-segmental clauses in the EMC are exceptions rather than a rule (1.8% of the EMC). Slobin (2003b) reports that in his study 86% of narrators with
Germanic L1s mentioned three or more segments to describe a particular scene from the frog story (the boy and the dog falling off the cliff), but my data do not show replication of his finding. Most of the L1 English speakers preferred to break the complex path (off the deer’s head /over the cliff / into the pond) into shorter path clauses (as in (34)):

34) The deer chases the dog and the boy and the dog are thrown off a cliff into some water. They fall into the water.

Fifty three percent of the narrators constructed two-segmented clauses, and 41% preferred simple path descriptions. Only 6% preferred 3-segment paths. Figure 13 provides a graphic summary of these data.

In the RMC, path descriptions of the same episode predominantly consisted of two-component paths as well, although instead of prepositional phrases, the components include a prefix-satellite and an unbounded phrase, e.g.

35) [Olen’] ego nechaianno s-kinul v rechku, mal’chik po-letel v ety rechku vmoste so svoej sobakoi.
‘[The deer] unintentionally threw [down from-threw] him in the river, the boy flew [set off-flew] in this river together with his dog.’
The number of complex path descriptions (3 segments or more) is nowhere close to the 76% reported by Slobin (2003b, 2006).

5.3.3. Aspect in the motion lexicalization pattern

The second path segment in example (35) highlights yet another layer of conceptual complexity that can be a part of the lexicalization pattern involved in the encoding of motion in Russian: aspectual contouring. Perfectivization of unprefixed verbs in Russian frequently involves prefixation (Chapter 3), and when a perfectivizing prefix (i.e. non-motion prefix) is added to a VoM, yet another type of lexicalization pattern is formed: aspectual prefix + VoM + (path clause), where parentheses indicate that unbound path clauses are optional. Motion descriptions which contain procedural verbs, i.e. prefixed Aktionsarten (see Chapter 3), fall into the same lexicalization pattern, and can either encode path (36) or not (37-38) depending on the type of the procedural motion type that they describe.

36) Nu sova <@1>po-kruzhilas’, <@1>po-kruzhilas’ <@2>nad nim i uletela.
   ‘Well the own made several turns [delimitative po- circle, delimitative po- circle] over him and left.’

37) On [mal’chik’] shiol ochen’ medlenno <@1>po-tiraia svoi ssadiny.
   ‘He [the boy] walking very slowly rubbing [comitative po- rubbing] his bruises.’

38) Kusty vnezapno <@1>za-shevelilis’.
   ‘The bushes unexpectedly starting moving [inchoative za- moved + reflexive –is ’].’

   Inchoative Aktionsarten with po- signal initiation of a motion event or setting off for a trip, and as such can be considered as part of the lexicalization pattern in which the prefix encodes motion meanings as a satellite. Note that in English commencement of a motion event is not formally encoded on the verb, e.g. compare
39) a. *Umm the first clip was Bean and he went to the pool.*

   b. *Ahh molodoi chelovek <@1>*po-shel <@2>*v bassein.*
   ‘A young man went to the pool.’

The English example in (39a) is more ambiguous in that it might mean that Mr. Bean left for the pool (is on his way to the pool) but can also be taken to indicate that he made it to the pool, while in Russian due to the specificity of prefixes-satellites, an inchoative po- would signal Bean’s leaving for the pool (as in (39b)). A different satellite pri- which expresses the concept of arrival, i.e. a separate motion clause with a new VoM, would need to be used in Russian to mark Bean’s arrival at the pool. Thus, the specifics of Russian morphosyntax can motivate repeated use of the same verb root with different path prefixes or with an aspectual prefix vs. a prefix-satellite, e.g. consider (40):

40) *Mister Bin <@1>*po-ekhal iskupat’sia v bassein. Kogda on [Bin]] <@1>za-shiol, <@1>*vy-shel <@2>*v bassein <@3> iz dushevoi, za kadrom narod zasmeialsia, vidimo nad ego zheltymi trusami.
   ‘Mister Bin went [inchoative po- drove] to swim in the pool. When he entered [in-went], came out [out-went] in the pool from the dressing room people in the audience were laughing, probably because if his yellow trunks.’

Such level of fragmentation of a motion event is typically not necessary in English (e.g. see (39a)). It is not surprising, therefore, that in the RMC more VoM and more path segments were used in comparison to the L1 English corpus. The L1 Russian narratives suggests that obligatory marking of aspect and the use of prefix Aktionsarten adds to the complexity of the structures used to encode motion events: when the slot for a prefix needs to be taken by an aspectual prefix, this necessitates the use of additional clauses with prefixes-satellites if path has to be specified.
5.4. Conclusion

To summarize, the comparative analysis of the surface structures involved in the expression of motion meanings in the RMC and the EMC reveals that in both languages motion is an important semantic domain. In the context of the employed elicitation tasks motion meanings were encoded by the narrators frequently and variedly. While the RMC and the EMC were found to be similar in terms of corpus size and narrative length, the former contains a higher number of VoM (4,379 vs. 2,645 in the English corpus), more path clauses (3,012 vs. 2,173), and a greater number of different types of VoM than the latter (389 vs. 139). Even when different VoM derived from the same manner root were counted as one type, the repertoire of motion verbs in the RMC totaled 177, which is 21% higher than in the EMC.

Close analysis of the L1 English narratives revealed a surprising finding: the narrators opted to render over 51% of all motion scenes in the corpus through basic manner or path verbs suggesting that the expression of manner in English through complex manner verbs is less habitual than previously believed and may be optional depending on the speaker’s perspective and communicative goals. The RMC, on the other hand, lacks examples of basic manner verbs. In Russian basic manner verbs like idti / khodit’ ‘go [uni./non.]’ are more manner-specific than the English verbs go and come in that the latter can refer to motion by conveyance and non-animate motion events, whereas in the RMC the verbs are generally limited to situation types referring to motion on foot by animate figures only.

Path clauses in the two corpora are different structurally and semantically. In Russian, morphosyntax plays an important role in shaping the lexicalization pattern for
encoding path and can involve mono-componential paths consisting of either prefixes-satellites and/or unbound path segments, with multi-segmental clauses typically including a prefix-satellite and an unbound segment(s). In English, the structure of path clauses is simpler because it involves only one formula: VoM + unbound path segment(s). Contrary to the previously reported findings (cf. Slobin 2003b, 2006), the EMC shows a strong preference among L1 English speakers to rely on simple paths (1 path segment or less), which was characteristic of 81% of all path descriptions in the corpus. The RMC, on the other hand, has a higher number of double segmented paths (46%), which, as the analysis of the Russian narrative suggests, is indicative of the strong conceptual bond that prefixes-satellites and unbound ground phrases share: prefixes mark the interaction of the motion path with salient spatial boundaries (boundary-reaching and boundary-crossing), and prepositional phrases locate motion events more specifically in relationship to the grounds of motion. Certain Aktionsarten derived from VoM provide both aspectual contours to the described motion events and add to the descriptions of motion path. Thus, possible formulas for the lexicalization pattern involved in the encoding of motion events in the two languages include:

- **English; Russian (non-boundary-crossing event)**
  VoM + unbound path segment

- **Russian (boundary crossing or boundary-reaching event)**
  prefix-satellite +VoM (+unbound path segment(s))

- **Russian (aspectual contouring; any type of interaction with boundaries)**
  aspectual or lexical prefix + VoM + (+unbound path segment(s))

Therefore, although Russian and English both belong to the group of S-framed languages
and are characterized in the crosslinguistic literature as using the same lexicalization patterns for encoding motion, the comparative analysis of the RMC and the EMC reveals significant differences between the semantic domain of motion in the two languages. Russian motion talk appears to be more complex both structurally and semantically. Based on the analysis of the L1 corpora only, one can claim with a certain degree of certainty that learning RL2 motion talk for English-speaking learners will mostly likely be characterized by significant acquisitional difficulties, because the learners are moving into a more complex conceptual system of motion meanings. Chapter 6 in fact provides ample empirical support for this supposition.
Chapter 6

Motion talk in RL2 learners’ speech

6.1. Introduction

This chapter presents the results of the RL2 motion corpus analysis and reports the empirical findings pertaining to the description of motion events by RL2 learners. Several research questions are answered in this chapter.

The first question addresses the surface structures used by RL2 learners for the encoding of motion events. The second question is concerned with comparing motion talk in the speech of RL2 learners of two different proficiency levels (namely, learners with 5+ years of formal instruction and 6+ months of immersion in a Russian-speaking environment vs. less experienced learners (students who on average had 3.5-4 years of classroom instruction and 2 or fewer months of study abroad). It is of interest to determine whether and how the two learner groups differ in terms of the motion structures that they employ. Accordingly, the next two questions addressed in the chapter are:

Q5. A. Which specific linguistic structures are characteristic of RL2 motion talk in terms of lexical, morphosyntactic, aspectual, and semantic choices made by American learners of Russian of in the contexts provided by a series of films and a picture story?

Q6. B. How do characteristics of motion talk vary between the more and the less experienced learner groups?

The first two questions are based on contrastive learner corpus analysis (CLCA) as described in Chapter 4 and, accordingly, concern themselves with contrasting RL2
learners’ motion talk with the L1 Russian and L1 English motion corpora to identify similarities and divergences in the speech of the three participant groups and evaluate the role of crosslinguistic interference in learner speech. Thus, questions 3 and 4 posed in this dissertation are formulated as the following:

**Q3. How does learner motion talk differ from motion descriptions by native speakers of Russian in terms of their lexical, morphosyntactic, aspectual, and semantic choices in the context of the same tasks?**

**Q4. Can RL2 learners’ lexical, morphosyntactic, and semantic choices in their motion talk be explained by L1 interference from English, i.e. general differences between L1 English and Russian surface structures for encoding motion?**

These questions will be answered through the application of a mixed-design approach which includes quantitative analysis (frequency and variety), qualitative analysis, as well as discussion of the insights that emerged from the open-ended post-interview sessions with the learners during which they shared their views on the most problematic aspects of motion talk.

### 6.2. The facets of RL2 motion talk analysis

The analysis of RL2 motion talk is more multifaceted than the analysis of motion descriptions in the L1 motion corpora in that it aims not only to outline the specifics of the structures (e.g. lexicalization patterns) used by the learners, but also to contrast the motion descriptions produced by the learners and the L1 participants (English and Russian) and to compare the motion talk of the two learner groups with more or less formal classroom instruction and study abroad experience. Yet another very important
aspect of CLCA specific to the learner language pertains to error analysis. Error analysis (informed by the corpus-based approach in this dissertation) is used to determine which structures present the most challenges for the learners (i.e. which structures were used incorrectly in a given contexts) but also whether any motion elements were overused or underused in comparison to the L1 Russian speakers. Granger (2002) points out that issues of overuse and underuse can be as revealing as the analysis of actual errors in learner speech.

As described in Chapter 4, the appropriateness of RL2 learner choices in their use of motion structures was determined by two native speaker raters (the author and a trained rater), as well as by the benchmark motion descriptions of the L1 Russian speakers. The narratives supplied meaningful contexts within which learner choices could be evaluated. The error tagging system implemented during data processing (Chapter 4) allowed me to retrieve and categorize errors with the help of WordSmith. The types of errors that emerged in the process of the learner corpus analysis can be divided into four groups as pertaining to the expression of manner (motion verbs), path (verbal prefixes-satellites, certain VoM, and prepositions), aspectual contouring (motion verbs and aspectual prefixes), as well as a category non-specific to the expression of motion, i.e. form-building errors including verbal affixes (e.g. used to mark gender, number, or conjugation,) and idiosyncratic verb distortions (e.g. uplávat’ vs. uplyvát’ ‘swim away’) Specifically, these four categories of errors that I drew on in the CLCA of the learner motion talk include:

**Manner-specific errors:**
- a semantically inappropriate verb root used
Path-specific errors:
- the use of a semantically inappropriate motion prefix
- a motion prefix omitted in a context where its use is required (underuse)
- a motion prefix used in a context where it is not required (overuse)
- use of a semantically inappropriate preposition
- a preposition omitted from the ground phrase when it is required (underuse)
- a preposition used in the ground phrase in a context where it is not required (underuse)

Aspect-related errors

Form-building errors:
- form-building error (gender, number, conjugation, tense);
- a motion verb distorted in an idiosyncratic fashion

The distribution and the nature of errors, as well as all other facets of the motion CLCA will be discussed in detail in both the quantitative and qualitative terms.

6.3. Quantitative analysis

6.3.1. Corpora size and narrative length

In terms of the general characteristics of the learner motion corpus (LMC), it is somewhat larger than the L1 corpora (which as Chapter 5 shows are highly comparable to each other in terms of size and narrative length). The total size of the LMC is 36,325 words, i.e. it is 13% larger in comparison to the EMC and 19% larger in comparison to the Russian L1 corpus (see Figure 1 for a graphical comparison).
The greater length of the RL2 learner narratives can be explained by several factors. First of all, the LMC is characterized by frequent false starts, repetitions, and self-corrections which increased the overall size of the corpus. It is also likely that the participants, all of whom speak Russian rather fluently, wanted to display their language skills, especially because they were quite familiar with the interviewer who was on the summer faculty at Middlebury College where much of the data was collected, and, therefore, built more elaborate narratives. Bean narratives in the LMC are the longest, but despite their greater length, the “motion density” analysis below will show that the Bean and the frog datasets are comparable in terms of motion density.

The more experienced learners’ motion talk and the less experienced learners’ narratives\(^1\) reveal that the two learner datasets are different in size yet comparable in terms of the average narrative length (see Figure 2). Because of the differences in size

\(^1\) In graphs and tables the following abbreviations will be used to distinguish between the more and the less experienced learner groups: RL2> and RL2<, respectively.
between the two learner datasets, the comparisons of the two groups provided in Figure 2 and later in the chapter are calculated as *averages per narrative or percentages* relative to the size of the respective dataset.

As described in Chapter 4, only 27% of the Bean-phase participants stories and 13% of the participants recruited to collect the frog data can be considered as “more experienced” learners, i.e. they have more than 5 years of formal classroom instruction, at least 6 months of immersion in a Russian-speaking environment, and report using Russian regularly professionally and socially.

The average narrative length is only slightly higher for the more experienced learner group and constitutes 419 words per narratives (with 346 w/n characteristic of the frog stories and 437 w/n characteristic of the Bean narratives). In comparison, the length of a narrative produced by the less experienced learner group averages 403 words per narratives (more specifically, 424 and 356 w/n in the frog and Bean datasets, respectively). And while the two learner groups are similar in terms of the narrative
length, the following discussion will show that motion descriptions in the two corpora
differ both in quantitative (variety and frequency) and in qualitative terms (preferred
surface structures).

6.3.2. Frequency and motion density per narrative

To calculate the frequencies with which motion elements are used in the LMC, I
counted the total number of tokens of VoM and path elements (instantiated through
prefixes-satellites, prepositions and adverbials) used by the learners. The characteristics
of the motion talk by the less and more experienced learner groups are presented along
with the comparative data from the L1 Russian and English corpora. The frequency
analysis of the learner motion talk represents the number of the motion structures that the
learners attempted to use in their motion descriptions, which they did not always manage
to do in a grammatically appropriate fashion. Therefore, frequencies pertaining to the
error analysis (i.e. the number and the nature of the errors) comprise an important aspect
of the LMC analysis.

6.3.2.1. Motion verbs

The frequency count reveals that motion narratives of the two learner groups
(more experienced and less experienced) are relatively similar in terms of how saturated
they are with VoM, although the narratives of the more experienced learners are
characterized by a slightly higher density of VoM per narrative (see Figure 3).

The percentage of motion verbs in the frog stories totals 9.4 % for the more
experienced group and 8.6% for the less experienced group. As for the Bean narratives,
the same numbers constitute 7.5% and 7.3%, respectively. The comparison of the learner motion talk to the L1 English and Russian corpora reveals that the learner narratives are close to the VoM density characteristic of the native speaker narratives, and the frog dataset shows that the RL2 learners surpassed L1 English speakers in this respect.

Figure 3. Percentages of VoM in the corpora

While VoM clearly played an important role in the RL2 learner motion talk, the purely quantitative analysis may be misleading. As previously mentioned, the LMC is a learner corpus and as such has typical “learner talk” characteristics, i.e. frequent false starts, repetitions, and self-corrections. Indeed, about 15% of all VoM fall into one of these categories; the number is lower for the more experienced group and accounts for 5% of the employed VoM. Figure 4 reflects the adjusted comparison of the VoM usage across the corpora. It shows that in actuality the less experienced learners described about

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1 The narratives of L1 native speakers contain hesitation markers (e.g. umm, ehh) as well as some false starts, although at a very low rate (see Appendices 3, 4 and 5 for sample L1 narratives). Therefore, recounts of motion structures in the L1 corpora seem unwarranted.
half of the motion events mentioned by the L1-speaking narrators, both in their portrayal of the Bean and the frog episodes. As the qualitative analysis to be discussed later will demonstrate, this is likely an indication use of an avoidance strategy by the learners, i.e. they preferred to rely on non-motion structures to narrate the events of the stories.

VoM constitute the bulk of the motion talk error analysis because VoM in Russian can be implicated in the encoding of all motion-related categories, i.e. manner, path (through verbal prefixes and some path verbs), and aspeccual contouring. The error analysis of motion verbs revealed a high percentage of errors in the use of VoM by the RL2 learners; in fact it is, in my view, surprisingly high considering the level of proficiency of both learner groups. In the Bean datasets the percentage of such errors constitutes 23% for the more experienced learner group and an even higher percentage (38%) for the less experienced group. The frog stories show an even wider divide in error
generation between the more and the less experienced learners: 15% and 45%, respectively. Figure 5 serves as a graphical representation of the error distribution in the learner narratives.

As I already pointed out, in order to understand the use of motion structures by the RL2 learners, it is important to consider not only learner errors but also all of the instances of correct usage (one of the principle distinction between the CLCA and earlier error analysis studies). Figure 6 reflects how errors and correctly used VoM are distributed in the narratives of the more and the less experienced learners per the prefixed vs. unprefixed VoM categories. The reader will recall from our earlier discussion of motion grammar in Russian, prefixes are an important part of analyzing motion structures in Russian because they are implicated both in the expression of path and procedural nuances (i.e. inchoatives with po-) through the Aktionsarten. In fact, in the L1 Russian corpus, out of 3338 VoM used by the L1 Russian narrators 2652 of the verbs contained bound prefixes-satellites (80%). Considering that motion prefixes are uncommon in
English (none were found in the EMC), one of the central questions of the error analysis relates to the use of prefixed VoM by the learners. Figure 6 presents a graphical representation of the distribution of VoM usage across the prefixed vs. unprefixed categories, including both correct and erroneously used VoM.

![Figure 6. Distribution of errors: Prefixed vs. non-prefixed VoM](image)

**More experienced group**

Examining Figure 6 we see first of all that prefixed verbs constitute the majority of verbs employed for the descriptions of motion events by the more experienced group; about 65% of all VoM in their narratives are prefixed, although prefixed VoM also constitute a larger error group in comparison to the unprefixed VoM. About 5% of the errors in the frog stories and 7% in the Bean stories of the more experienced group were unprefixed, and as Figures 7 and 8 show the majority of these errors are attributable to the omission (underuse) of motion satellites in the contexts where they were required.
Thus, while overall the more experienced learners relied on prefixes to express motion meanings in 65% of all motion descriptions, this percentage is still much lower than what is required in Russian. In my view, the source of this error is the learners’ L1, where prefixed motion verbs are unattested in the L1 English corpus and satellites are used for path encoding instead. Among the remainder of the errors in the use of unprefixed verbs VoM, inappropriate choice of a manner verb constitutes another large category; over 50% of all mistakes in this case result from erroneous use of a directional verb (i.e. unidirectional verb used vs. a multidirectional verb and vice versa). An expanded discussion on the topic is offered in the qualitative analysis section of this chapter.

Figures 7 and 8. Unprefixed VoM in the narratives of more experienced learners

![Figure 7. RL2> Frog. Unprefixed VoM](image1)

![Figure 8. RL2> Bean. Unprefixed VoM](image2)

Other errors are non-specific to the topic of motion talk and include aspectual mistakes and form-building errors (conjugation, gender, number, as well as idiosyncratic distortions of verbs). While aspect is widely acknowledged as a persistently challenging topic for RL2 learners, it is surprising that form-building errors presented a challenge even for the more experienced participants, who can be considered expert users of
Russian (all have extensive experience in using Russian professionally and socially). As Figures 9 and 10 demonstrate, errors related to form-building and aspectual framing are even more prominent in the use of prefixed VoM, which is understandable considering that prefixed VoM present an added layer of difficulty, i.e. one has to consider whether a prefix is required or not, and if so, which prefix is appropriate in the given context and whether it can combine with the VoM to be used (as Chapter 5 shows, not all Russian VoM have a high combinatorial potential). About 10% of all errors in the frog stories and 15% in the Bean narratives occur in prefixed VoM.

Errors specific to the encoding of motion meanings are motivated by the inappropriate choice of a manner verb or a satellite. Thus, while the more experienced learners consistently rely on prefixes to express motion meanings, they still have difficulty in using the semantic nuances of all prefixes-satellites in Russian. Overlaps of errors (e.g. inappropriate satellite plus a conjugation error) do occur, but they are infrequent in the stories of the more experienced learners (5 tokens in total). Such overlaps are more frequent in the motion talk of the less experienced group (67 tokens).

Figures 9 and 10. Prefixed VoM in the narratives of more experienced learners
Less experienced group

As Figure 6 on page 186 demonstrates, the less experienced learners’ motion talk notably differs from the more experienced group in terms of the distribution of prefixed vs. unprefixed VoM in their narratives. The figure shows rather vividly that the percentage of prefixed verbs in the dataset of the less experienced learners is on average much lower than it is in the motion descriptions of the more experienced group. Additionally, the number of the incorrectly used prefixed verbs is almost twice as high in the less proficient learners’ narratives, which signals that the L2 pattern for expression of motion in Russian, i.e. expression of path nuances through prefixes-satellites presents significant difficulty for these learners. The percentage of erroneously used verbs is also higher in the stories of the less experienced group (45% in the frog stories and 38% in the Bean narratives of the latter group vs. 15.4% and 23% in the narratives of the more experienced learners, respectively).

Figures 11 and 12 also show that errors in the use of unprefixed VoM are attributable to the fact that the learners did not use prefixes-satellites in the contexts where they are required. The motion talk of the less experienced learners, therefore, suggests that these learners are less familiar with the L1 Russian lexicalization pattern (i.e. prefix + prepositional phrase(s) in boundary crossing and reaching event types). The analysis of the stories suggests that the participants who narrated the frog narratives may be the least experienced group in the use of the Russian motion talk amongst the RL2 learners¹.

Thus, in addition to the differences between the less and the more experienced

¹ As Chapter 4 describes, the data collection was conducted over two summers, i.e. different learner groups were recruited to collect Bean recalls and frog stories. Nonetheless, all participants were recruited in advanced level courses at the Middlebury College Russian Summer School.
groups, the narrators recruited during the “Bean phase” and “frog phase” of the data
collection also show differences in their motion talk proficiency. First of all, the
frequency of errors in the frog stories is higher than it is in the Bean dataset (45 % vs.
38%, respectively). Secondly, Figure 6 reveals a remarkable difference in the preferred
lexicalization pattern in the motion talk of these two groups. In the frog narratives the
lexicalization pattern prominent in the RMC is not used consistently, i.e. in the frog
dataset the participants preferred to use unprefixed VoM in more than 50% of all motion
descriptions. In comparison, in the narratives of the more experienced learners and the L1
Russian participants unprefixed VoM are reserved for the descriptions of 35% and 20% of
all motion events, respectively. The avoidance of prefixed VoM resulted in the high
percentage of erroneously used unprefixed VoM: 39% of all errors in the use of
unprefixed VoM are attributed to the omission of a prefix-satellite in a required context
(Figure 11).

The Bean narratives of the less experienced participants also show underuse of
prefixes-satellites (Figure 12); yet the number of the unprefixed VoM in the Bean dataset
is lower (33% vs. 54% in the frog stories), which shows that the participants recruited
during the Bean phase of the experiment are using the L1 lexicalization pattern with
greater consistency.

When both the correctly used VoM and the incorrectly used VoM are considered, the
narratives of the “Bean phase” show evidence that these learners prefer to rely on
prefixes to indicate path, even though their use of prefixes is not consistently correct. It
appears that the “Bean phase” participants are further along in their acquisition of the
Russian pattern than the “frog phase” group of the less experienced learners. I will return
to the differences in the performance between the two sub-groups of less experienced learners later in this chapter. I would like to remind the reader here, however, that the variety analysis in Chapter 5 has shown that L1 Bean narratives have been shown to involve a greater number of diverse motion events, i.e. it is unlikely that the differences between the “frog phase” and “Bean phase” datasets could be attributed to the frog story being a more challenging stimulus.

Figures 11 and 12. Unprefixed VoM in the narratives of the less experienced learners

The frog and the Bean narratives share high levels of errors related to the inappropriate choice of a manner verb (Figures 11-14), which I will address in greater detail in the discussion section of this chapter. Motion descriptions of the less experienced group show that the learners also struggled with form-building and aspect, more so than the more experienced group (Figures 7 and 8). The error category specific to the use of prefixed VoM, namely, semantics of prefixes-satellites, is also prominent across the narratives of the less experienced learners, even though the Bean narratives
have a higher percentage of the correctly used prefixed VoM. Section 6.5 offers an extended discussion on the nature of difficulties that the learners had in using path prefixes.

**Figures 13 and 14. Prefixed VoM in the narratives of the less experienced learners**

To conclude, the review of the VoM use by the RL2 learners showed that in spite of their high level of proficiency in Russian, both the more experienced and the less experienced groups had difficulties in choosing appropriate VoM in their descriptions of motion events. Overall, the motion talk of the more experienced group contains fewer errors and shows high consistency in the use of the prefixed VoM. Yet, even these learners still make errors related to the underuse of prefixes-satellites and the semantics of Russian prefixes. In the less experienced group, the participants recruited to narrate the frog stories show lower proficiency in Russian motion talk than the Bean-phase participants. Most of the VoM in the frog stories of the less experienced group are unprefixed; additionally, this dataset has the highest number of underuse of prefixes-satellites and inappropriate choice of prefixes. These errors plus the high percentage of
errors in form-building and aspect suggest that the use of Russian VoM imposes a significant cognitive load on the learners and constitute a highly challenging topic for acquisition and use, which required a considerable amount of formal instruction and practice.

6.3.2.2. Motion path

Chapter 5 addressed the granularity of path segmentation in L1 Russian and English corpora and showed that while both languages (as members of the S-framed group) can potentially accumulate several path segments on one motion verb, multiple paths were not characteristic of the motion descriptions either in the RMC or the EMC. The difference between the two groups, however, was in the number of 2-segmented paths: in the Russian corpus such paths constituted 70% of all path clauses in the frog stories and 46% in the Bean narratives. In English, on the other hand, double-segmented paths were characteristic of only 17.2% of all path descriptions. The analysis in Chapter 5 suggested that double segmentation is reflective of the differences that exist between English and Russian in terms of the preferred lexicalization patterns for encoding motion path. Because prefixes are required in Russian to signal deictic nuances (in the situations which include boundary crossing and reaching are involved) Russian speakers must use prefixes. Since the stimuli used in the experiment are rich in boundary crossing and reading event types, multiple double segmented paths (prefix + a ground element) were retrieved from the RMC.

An important question with regard to the learner motion talk, therefore, was to evaluate the granularity of RL2 learners’ path descriptions and to contrast them with
those found in the L1 corpora to see if the learners’ narratives capture the deictic nuances encoded in the path descriptions in the RMC. Another goal was to compare whether the more and the less experienced learner groups used the same path constructions in their motion narratives.

As Figures 15 and 16 demonstrate, the more experiences learners are approaching the pattern typical of the L1 Russian corpus. In their narratives, the percentage of paths consisting of two clauses constitutes 57% in the frog dataset and 28% in the Bean dataset. As a reminder, the same numbers for the L1 English corpus average 18% and 17%. The learners, nevertheless, have not produced as many double-segmented clauses as the L1 Russian speakers did: the percentages for the RMC equal 70% and 34%.

**Figures 15 and 16. Path encoding in the narratives of the more experienced learners**

![Figure 15. Distribution of path elements in RL2> Frog stories](image1)

As for the less experienced group, their narratives also contain a sizable number of complex paths: the double-segmented path clauses account for 36% of all paths in the frog dataset and 43% of the clauses in the Bean stories. Thus, the less experienced learners also produced more complex paths than the L1 English speakers, but on average
their narratives contain less double-segmented paths than the motion talk of the L1 Russian speakers.

The error analysis of the VoM conducted in the previous section explains why the RL2 learners’ narratives contain fewer double-segmented paths. We have seen that the narratives of the more experienced learners - and the narratives of the less experienced learners even more so - were short on prefixed VoM in comparison to the number of VoM in the RMC. One of the main error categories in the LMC, as the error analysis has also revealed, is in the omission of a path satellite, which explains the lower number of prefixed VoM in the LMC.

**Figures 17 and 18. Path encoding in the narratives of the less experienced learners**

The comparative analysis of the frog and the Bean datasets within the less experienced learner group also reveals interesting insights. It is puzzling why the less experienced learners used more double-segmented clauses in their Bean narratives when both the L1 Russian speakers and the more experienced group produced *less* elaborate paths to describe the Bean episodes. In Chapter 5 I hypothesized that the lower number of
double-segmented paths in the Bean stories is to be expected as a likely consequence of
the stimulus effect, i.e. the task of describing still pictures in the frog story naturally leads
to more detailed depictions of motion path and ground details as opposed to the more
dynamic task of recalling a movie. Bean recalls in the RMC turned out to be more
dynamic (i.e. shorted sentences and less elaborate ground descriptions); hence a smaller
number of ground paths which can combine with prefixed VoM and form complex paths.
Why is the task effect is absent from the Bean narratives of the less experienced learners?

The explanation can be offered in developmental terms. In fact, the error analysis
in the previous section showed that the learners recruited during the “Bean phase” of the
data collection are more proficient in using Russian motion talk than the learner recruited
to narrate the frog story, which is evident from the percentages of errors in the two
datasets as well from the distribution of errors in the use of prefixed vs. unprefixed VoM.
Thus, these differences in the language skills of the participants groups (although not as
dramatic as we might observe had the LMC contained stories of beginning and
intermediate level RL2 learners) allow us insights into the developmental progression
that RL2 learners are likely to follow in their acquisition and use of Russian motion talk.
As Section 6.3.2.1 discussed (cf. Figure 6), the “frog-phase” participants in the less
experienced group preferred to use unprefixed verbs of motion, i.e. they favored L1
English lexicalization pattern by predominantly relying on the unprefixed VoM. Most of
the motion descriptions in the frog narratives, therefore, framed motion events through
locative descriptions and non-boundary crossing path descriptions, e.g.

1) **Sova letela i mal’chil *khodil / *khodil dal’she.** ‘The owl was flying [imp.] and
the boy walked / walked [imp., E: directionality] further’ (to describe the episode
in which the boy is running away from the owl chasing after him).
2) *Potom mal’chik sidel na golove olenia i on edil na olene.* ‘The the boy was sitting [imp.] on the head of the deer and he was riding [imp., non.] the deer.’ (to describe the episode in which the boy fall on the deer’s head, and the deer carries him over to the edge of the cliff).

The “Bean phase” participants are more advanced in the sense that their narratives contain almost twice as many prefixed VoM in comparison to the frog dataset, albeit the use of prefixes is error prone. Nevertheless, the Bean narratives are abundant in the motion descriptions that include boundary crossing and reaching; hence the high number of prefixed VoM followed by ground phrases, i.e. *complex paths*. In fact, these learners appear to overgeneralize in the application of the prefix + preposition pattern and apply it even in the contexts in which VoM are transitive and verbal government does not permit complements, e.g. consider (3):

3) *Gospodin Bin sumel uekhat’ i on geroi i militsioner ne smog / ne smog do-gnat’* 
   *do nego.* ‘Mister Bean managed to leave and he is a hero and the police couldn’t / couldn’t catch him [E: overuse of preposition do].

The high percentage of double-segmented path clauses (higher than in all other participant groups, including more experienced learners and L1 narrators) reflects the tendency to overgeneralize.

The error analysis of paths descriptions in the LMC shows that RL2 learners do not only struggle with the general matter of choosing between prefixes-satellites, unprefixed VoM, and unbound path segments. When they do use the path elements the learners also are faced with the wide selection of available prefixes and satellites, many of which encode similar concepts, and some prefixes and satellites cannot be combined (Chapter 5). On average, prefixes in the RL2 learners’ motion prefixes proved to be more prone to errors than prepositional phrases (Figure 19). The less experienced group of learners particularly struggled with the choice of prefixes, the participants from the “frog
phase’ of the experiments in particular: 49% of prefixes-satellites and 12% of ground phrases were used by these learners incorrectly. It is not surprising that prepositional phrases proved to be easier to use for the learners. While prepositions in English and Russian have semantic overlaps, the semantics of Russian prefixes are more idiosyncratic and interact with the deixis of boundary crossing and reaching which is not encoded with the same consistency in English (as the analysis of the EMC showed in Chapter 5).

To conclude, the analysis of path segmentation showed that the RL2 learners have started to form path descriptions similarly to the L1 Russian speakers. While on average the LMC contains fewer double-segmented paths than the RMC, the percentage of complex paths is 3 times higher in the learners’ narratives than it is in the native English corpus. In fact, the “Bean phase” participants in the less experienced group produced more double-segmented path clauses to depict motion scenes in the Bean episodes than the native speakers did. The data suggest that in terms of path segmentation, RL2 learners can progress from relying on unprefixed VoM and simple path clauses (the “frog phase” participants in the less experienced group) to a more consistent use of bound and unbound elements as a pattern, but initially with a high percentage of errors. The narratives of the more experienced group show that more native-like path descriptions and accurate use of path segments is attainable, although errors related to the choice of prefixes and prepositions might persist.
6.3.3. Variety

The variety analysis of the LMC (which focuses on types vs. tokens) reveals that the learners’ lexicon for encoding motion meanings is impressively diverse. This is particularly true of the VoM repertoire. Thus, RL2 learners used 71 different types of verbs to narrate the frog story and 182 types of verbs to describe the motion scenes in the Bean episodes. Due to the partial overlap between the motion types in the stimuli, the number of VoM types in the LMC totals 230 which is quite remarkable number for L2 motion talk and is reflective of the high level of proficiency among the participants.

The variety analysis shows that the learners’ VoM lexicon in Russian is higher than the repertoire of VoM found in the EMC: the learner corpus contains 230 types of VoM in comparison to the 139 types in the L1 English corpus. Nonetheless, the learners are considerably behind the L1 Russian narrators who used 398 different types of VoM to describe the motion events in the stimuli, which means that the RL2 learners’ VoM lexicon includes only 58% of the VoM used by the Russian participants (see Figure 20).
Figure 20 provides a graphical representation of the fact that the VoM variety in the learner corpus exceeds the size of the VoM lexicon in the EMC, yet the RL2 learners’ narratives did not reach the level of diversity exemplified by the verbal repertoire found in the RMC.

In order to evaluate the variety of manner concepts expressed by the RL2 learners more accurately, I conducted a “pure manner” count similar to that carried out in Chapter 5 with regard to the RMC. In other words, I stripped motion verbs off their prefixes and counted manner roots only (i.e. VoM with the same manner root were counted as one type). The reason for conducting this alternative count is to uncover the variety of manner concepts encoded by the verb in the LMC separately from other nuances (path- and aspect-related). The manner count showed that the total number of motion concepts expressed by the RL2 learners totals 112 types, which is 63% lower than the “pure manner” count based on the analysis of the motion talk in the L1 Russian corpus. Figure 21 summarizes the results of the two frequency counts.
Figure 21. Variety of VoM in the RMC and LMC

This alternative count places the number of manner types retrieved from the LMC below the variety count based on the analysis of the L1 English motion narratives, which contain 130 types of VoM. Thus, the learners employed fewer manner types than the Russian-speaking and English-speaking participants drew on in their narratives (as the RMC and the EMC show). These data suggest that the RL2 learners may not be fully familiar with the VoM lexicon in Russian, or at least they do not have a full array of motion verbs in their active lexicon.

As for the variety of the elements used to encode motion path, the analysis of the LMC shows that RL2 learners approximate the L1 Russian corpus in this respect. Of course, the number of options is more limited when it comes to the expression of path as compared to the VoM repertoire. Thus, the learners used 15 types of prefixes-satellites and 17 prepositions and adverbials with locative and directional meanings. These numbers are for the RMC total 19 and 26, respectively. Not all of the types were used
appropriately, however, which is particularly the case with prefixes (cf. Figure 19 in the previous section).

The variety analysis of the RL2 learner corpus additionally shows overuse of certain path segments, specifically, path-encoding adverbials such as obratno ‘back, nazad ‘backwards’, vverkh ‘upwards’, vniz ‘downwards’. While use of these adverbials is grammatically admissible in Russian, they account for less than 1% of path descriptions in the RMC. In contrast, 7% of all unbound motion descriptions in the learner motion talk consists of such path adverbials. This appears to be a transfer from English, which relies on particles-satellites similar in meaning to the adverbials in Russian to encode motion path. In Russian, of course, prefixes play this role, and, therefore, the use of the adverbials is not necessary most of the time; hence, their rarity in the path descriptions of the Russian group. But because the learners preferred to rely on unprefixed VoM more often in their motion descriptions (as Section 6.3.2.1 of this chapter demonstrated), for these learners adverbials might be filling the satellite role instead of path prefixes.

Thus, the frequency analysis shows that the learners – more experienced and less experienced alike – have used a wide variety of different VoM in their motion descriptions; yet in comparison to the benchmark Russian corpus the variety of motion verbs in the LMC is markedly more limited. The learners seem to be more familiar with the repertoire of path elements available in Russian (both bound and bound), as they attempted to use almost as many types of prefixes and satellites as the native speakers did, although the error analysis conducted in the previous section showed that the use of path segments in the LMC is error prone. Nevertheless, the variety analysis demonstrates that the learners are aware of the repertoire of path elements available in Russian, even
though they may not be ready to employ these segments spontaneously in unrehearsed communicative situations such as narrative tasks.

6.4. Qualitative analysis

First insights about the nature of RL2 motion talk emerged during the comparative analysis of size and length in the LMC vs. the L1 Russian corpus. On the other hand, we find that the LMC is longer, but on the other hand the two are similarly saturated in terms of motion talk (Figure 3). A deeper analysis showed, however, that if we take into consideration the amount of false starts, repetitions, and self corrections (up to 15% of all VoM in the less experienced learners’ narratives, and up to 5% in the more experienced group), the divide between the L1 Russian corpus and the LMC widens noticeably. This is particularly true with regard to the narratives of the less advanced participants; the adjusted count shows that their narratives on average refer to only half of the motion events described in the RMC. The high number of self corrections and the repetitions is, in my view, indicative of the fact that motion talk imposes a high cognitive load on the participants. Thus, consider the following:

4) On mmm / dazhe ne znaiu kakoi glagol / lezet / lezet na pol i ishchet liagushku v nore [Prep.] /*v noru [Acc.] /* v noru [Acc.]. ‘He mmm I don’t event know which verb /climbs / climbs on the floor and searches for the frog in the hole [locative] / into the hole [directional] / into he hole [directional].

5) On nakhodit i on umm nu / nu taskaet / tolkaet da! taskaet / tolkaet umm musornuiu bochku na sensor. ‘He finds and he umm well / well drags [non.] / pushes yes! / drags [non.] / pushes the garbage bin onto the sensor.’

6) Shlagbaum byl shishkom nizkii? nizkii i umm on ne mog pe/ pere/ pere/ pro-ekhat’ umm umm pod uhh / pod ei / pod Oh Gosh! / pod etim / pod nim / pod nim. ‘The gate was too low? low and umm he couldn’t cro/ cross/ cross/ drive through [through drive] and umm under ehh under it / under Oh Gosh / under his / under it / under it.’
7) Nado podozhdat’ vtoraja mashina priekhat’ / ehh prie / prie/pri-ekhat’ ehh pri-ezdet. ‘He has to wait for another car to come in [arrive-drive] / ehh in /in/ come in [arrive-drive; E: form; idiosyncratic].

The learners cited above are hesitant about their choice of manner verb, prefixes, prepositions, and case. And in fact, as the error analysis has shown, they made erroneous choices surprisingly frequently, considering their extensive Russian-language instruction and immersion experience. In the post-interview sessions the majority of the participants said they believed that RL2 classrooms provide neither sufficient exposure to a variety of VoM nor opportunities for practicing VoM in communicative contexts. Unrehearsed description of motion-rich episodes was an unusual genre for them, even though they thought that grammar exercises on VoM were allotted sufficient attention in the classrooms.

Lower motion density in the LMC is also indicative of another learner strategy, namely, reliance on non-motion structures to narrate the motion events portrayed in the stories. In other words, learners avoided the use of motion VoM (and consequently, path descriptions) in some contexts, i.e. consider:

8) Skoro oni nashli ulei pche/ pchely ((laughs)). Nedaleko ot ulei byl /byla malen’kaia nor. On smotrel v noru no tam byl tol’ko surok. Posle etogo on smotrel v duplo. On / Bozhe moj, sovsem zablya glagoly. ‘Soon they found a beehive. Not far from the beehive there was a little hole in the ground. He looked into the hole but there was only a groundhog. After that he looked into the hole in the tree. He / Oh my God, I completely forgot the verb.’

Thus, the learner in (8) preferred such verbs as be, look, find instead of motion verbs, which is not uncommon for the LMC.

The avoidance of VoM by the learners partially explains the diminished variety of VoM in the LMC in comparison to the L1 Russian corpus (230 vs. 398 types).
Additionally, utterance-based analysis shows that when the learners used motion verbs, they—naturally—tended to rely on the verbs that they were comfortable with at the expense of omitting important motion events that required the use of different lexemes, e.g. consider this example from the LMC:

9) On *staralsia* *s-prygnut’* kak neskol’ko raz no ne polichulos’. I potom dva mal’chika oni khoteli *prygnut’* tozhe i oni byli gorazdo mladshe ehh chem gospodin Bin/ i oni zhvali zhvali / no ia ne znaiu/ on / i gospodin Bin on /on zametil chto oni khoteli *prygnut’* i on *staralsia eshio raz kak *prygnut’*. ‘He tried to jump down [down-jump] like several times but [it] didn’t work. And then two little boys they wanted to jump as well and they were considerably younger ehh than Mister Bin/ and they waited / but I don’t know / he / and Mister Bin he / he noticed that they wanted to jump and he tried one more time like to jump.’

The episode description above refers to a lengthy and complex motion scene with multiple motion events, which were limited in (9) to *prygnut’* [pf.] ‘jump’ (cf. Appendix H for a sample motion narrative of the scene produced by an L1 participant).

The narratives of the more experienced learners, however, display a higher level of confidence, i.e. they have fewer false starts, repetitions, self-corrections, and contain more detailed descriptions of motion events overall (see Appendix I for sample narratives). The higher level of performance by the more experienced learners results from a combination several factors, including more years of formal instruction, increased exposure to Russian outside of the classroom, and ample opportunities for communicative practice. In the post-interview sessions more experienced learners commented on their conscious efforts to improve their proficiency in the area of motion talk independently from classroom instruction. One of the learners shared that he started to use a phrasal dictionary regularly to expand his motion vocabulary after study abroad in Russia where he had noticed frequent use of the verbs *lazit’* [non.] and *lezt’* [uni.] ‘climb’ and discovered that two pages were allotted to the use of these verbs in
combinations with different prefixes which he had never encountered in his upper level RL2 courses. Quite remarkably, some learners could remember how and when they learned certain VoM, as, e.g. one learner mentioned that he had learned the low frequency verb *prisloniat’sia* ‘lean against’ (which he used to narrate one of the frog story episodes) in the Moscow metro which warns the travelers *ne prisloniat’sia k dveriam* ‘not to lean against the doors’. Such accounts by RL2 learners confirm that for instruction in the area of motion talk to be more effective, it has to include contextualized input and meaningful practice (which I will address in Chapter 7). This conclusion is in line with the view of RL2 learners: several of them voiced an opinion that by studying VoM through grammar instruction (through the traditional structure-instruction that they experienced) it is impossible to learn how to use these verbs in everyday communication; they all believed that additional communicative opportunities are necessary.

In support of learner views, the error analysis has shown remarkable variability in the levels of error generation in the learners’ narratives, which is most likely attributable to their varying experiences of using Russian /being exposed to Russian in authentic communicative situations. While the narratives in the LMC are comparable in terms of the number of narratives per story, several narratives of the less experienced learners are characterized by exceptionally high rates of error generation (over 75% of all used VoM); on the other end of the distribution continuum, some narratives are comparable to the more experienced group with 15-25% of errors. Considering that all learners have comparable seat time, varying experience with motion talk is a likely explanation. However, further acquisitional studies are needed to conduct the analysis of variability among learners with similar academic backgrounds.
The less experienced learners, who have more limited study abroad experience (2 months or less, on average), directly commented in the post-interview sessions on their limited VoM vocabulary and lack of experience with using diverse manner verbs, e.g.

10) [Po-angliiski] ia by skazal chto on ‘popped out, popped out of the hole in the ground’. Ia by ne skazal poiavilsia ‘appeared’. Jumped out or popped out. [In English] I would say that it ‘popped out, popped out of the hole in the ground’. I wouldn’t have said poiavilsia appeared. ‘Jumped out or popped out’ (in reference to the description of the episode from the frog story in which a groundhog emerges from the hole in the ground).

11) Ia vsegda govoril ‘podnialia’, ‘podnialia’. Potomu, chto ia ne znaiu eti glagoly. ‘I said ‘ascend’ ‘ascend’. Because I don’t know these verbs’ (in describing various climbing scenes in the frog story).

The error analysis showed that finding context-appropriate manner verbs was a challenge for both the more and the less experienced learner groups (Figures 7-14), although the percentage of errors was higher in the narratives of the latter group. Thus, LMC contains instances of the learners refusing to describe certain motion scenes (ia ne znaiu ‘I don’t know’; ia ne znaiu mnogo slov ‘I don’t know many words’; izvinite ‘I am sorry) and narrative breakdowns (la sovsem ne mogu ‘I can’t [tell the story] at all’), which, again, is surprising considering the high level of proficiency of the participants.

The learners’ verb choices also differ from those made by the L1 Russian narrators in that the learners’ narratives displayed their tendency to opt for low manner descriptions (mostly through the use of the verbs khodit’ and idti ‘go’) to describe non-basic manner situations, e.g.


None of the Russian participants chose the verbs idti [uni.] and khodit’ non.] ‘go/come’ to refer to the motion events mentioned in (8); rather, they used manner-specific verbs (e.g.
vy-lez [out-crawled], vy-skochil [out-jumped]). These diverging preferences in the choice
of deictic low manner verbs in the LMC and the RMC in the descriptions of the same
scene are parallel to how low manner and high manner situations were portrayed in the
L1 corpora. As discussed in Chapter 5 (cf. the discussion of the owl’s emergence
episode), the participants in the EMC frequently used deictic verbs like go, come and get
as “basic manner” verbs when they focused on path rather than manner of motion.
Russian, on the other hand, permits the use of some path verbs, but manner verbs must be
specific. Thus, idti [uni.] / khodit’ [non.] ‘go/come’ are reserved for the contexts in which
motion on foot is described, and if other manner nuances are involved, manner specific
VoM have to be used. For the same reason, as discussed in Chapter 5, the verbs ekhat’
[uni.] / ezdit’ [non.] drive’ and idti /khodit’ ‘go/come’ are not typically interchangeable in
Russian. Yet the learners – even the more experienced group – were influenced by their
first language in describing the driving scenes through the verbs idit /khodit’ treating
them as translation equivalents of English go and come, e.g.

13) Kogda on *vodil mashinu, *prishla drugaia mashina. ‘While he was driving [E: manner] the car another car came in [arrive-walked; E: manner].

Example (9) contains yet another verb that RL2 learners erroneously used to refer to
driving scenes - vodit’ [non.]. While it is translated into English as drive, in Russian it is
used in contexts that emphasize driving as a skill (e.g. On khorosho vodit mashinu ‘He
drives well = he has good driving skills’). In the RMC the verb vodit’ ‘drive’ was never
used because the stimuli’s plots were not conducive to its usage. There are also instances
of self-correction in the use of these verbs by the learners, which suggests that the
learners may passively know the rules but due to the lack of practice and L1 transfer the
mistakes persist in their spontaneous motion descriptions. This is illustrated in (14) and
14) On saditsia v mashinu i ochen’ bistro *vy-khodit / vy-ezzhaet iz garazha. ‘He gets into the car and gets [out-walk] out / drives out from the garage.’

15) I on vynuzhden *idti nazad / ekhat’ nazad. ‘And he is forced to get [walk] back / drive back.’

It is likely, however, that the less experienced learners may not have been aware of these differences in the semantics of the Russian and the English verbs; over 40% of all motion descriptions that involve motion by car were described by the RL2 learners through the use the verbs idti or khodit ‘go/come by foot’ (or prefixed verbs derived from them).

Events that included (dis)placement of objects by motion figures similarly proved difficult for the learners due to the fact that in this semantic field Russian verbs are more specific than is the case in English. In English, one can use the verb put to refer to virtually any type of placement (the boy put the frog in the jar, Bean put the ticket in the exit machine, Bean put the barrel on the sensor.), while in Russian these meanings are all rendered through different verbs. Consider the following examples from the RMC:

16) Oni posadili liagushonka v banku. ‘They put [=seated] the frog into the jar’.

17) Snachala voditel’, vstavil v avtomat bilet. ‘First the driver [in-placed] put the ticket into the machine’.

18) Bean prikatil kakuui-to zheleznuuiu bochku, apparat sreagiroval. ‘Bean brought [to-roll] some iron barrel and the mechanism reacted to it’.

Thus, in Russian a variety of verbs are available for expressing the notion of placement. In the learner corpus, VoM were usually misused in these contexts. Most frequently, the verb stavit’ ‘place something vertically’ was used to refer to different types of placement, e.g.
19) Mal’chik *po-stavil liagushonka v banke / v banku. ‘The boy put [placed vertically; E: manner] the frog into the jar’.

20) I on *po-stavil bilet v mashinu. ‘And he put [placed vertically; E: manner] the ticket in the machine.

While a potential equivalent of *stavit*’ used by the learners in (19) and (20) does exist in English (*stand*), it would be inappropriate to use in the English translation of the sentences in the cited contexts. Most likely, the learners drew on their dictionary knowledge of the verb *stavit*, which is usually translated as *put*, i.e. it appears that they are not aware of the fact that the Russian and the English verbs are not translation equivalents.

The high error rate in the encoding of such relatively simple motion events as the ones which refer to driving and placing objects (the encoding of such events is also pragmatically important and should be common) is indicative of the learners’ lack of familiarity with the Russian VoM repertoire and the semantic nuances that distinguish Russian VoM from their English ‘counterparts’. The analysis of the learners’ choices suggests that in general they are only vaguely familiar with the meanings of Russian motion verbs, i.e. they know the central meaning of the verb but not the full range of semantic nuances (which often determine the usage of the verb). The examples are multiple and include not only basic manner but also high manner and path verbs, e.g. consider the following examples:

21) I poka oni smotreli iz okna ehh sobaka upala, banka *s-lomalas*. ‘And while they were looking out of the window the dog fell, the jar broke [E: manner].

22) Devochka podoshla k basseinu i ona / ona *do-stigala i vziala eti plavki. ‘The girl came up to the pool and she / she *reached [E: manner] and took the swimming trunks.
As for the verb in (21), lomat’sia is translated in dictionaries as break. However, it does not refer to breaking in the sense of ‘separating into parts’ but rather encodes breakdowns of various mechanisms. Similarly, the verb dostigat’ is rendered in dictionaries as reach, but it can only be used to refer to reaching a certain destination point, never an object (as in 22). Once again, the analysis of the LMC convincingly shows that RL2 learners, particularly at advanced levels of proficiency need to be exposed to, and practice, a variety of VoM in meaningful contexts; otherwise, their use of motion structures is not likely to overcome high levels of error generation. In the post-interview session one learner, after failing to describe an episode from the frog story complained with visible frustration:

23) Ia ne znaiu eto tam ‘crawl’ ili ‘climb’. Ia ne znaiu potomu chto oni prepodaiut nam tol’ko ‘vozit’ i ‘nosit’. ‘I don’t know it’s either ‘crawl’ or ‘climb’ there. I don’t know because they only teach us ‘vozit’ and ‘nosit’.

The learner in (23) addressed a very important issue, namely, how the topic of motion talk in presented in current textbooks. I have already pointed out in earlier chapters that the discussion of motion talk in the textbooks is typically limited to the group of unprefixed (non)unidirectional VoM. However, the findings of this dissertation suggest that such a narrow focus in problematic for learners. First of all, unprefixed (non)unidirectional VoM were used only in less than 4.5 % of L1 Russian speakers’ descriptions, i.e. the use of these verbs is limited to very specific contexts. The analysis of the RL2 learners’ motion talk, on the other hand, shows that the (non)-unidirectional verbs account for 12.6% of all descriptions in the LMC (which indicates overuse in comparison to the L1 Russian data). While one would expect that the learners are familiar with the usage of (non)-unidirectional verbs, the error rate for this group of VoM reaches
67% in the narratives of the less experienced group and 42% in the narratives of the more experienced group. However, most of the errors are attributable not to the use of unidirectional vs. non-unidirectional distinction, but due to the fact that the learners attempted to use these verbs without prefixes, while the L1 Russian narrators overwhelmingly relied on prefixed VoM derived from the unprefixed directional verbs. For example, compare the following excerpts from the RMC (24) and the RL2 learner corpus (25), respectively:


25) I kogda oni spali liagushka *lez iz banki. ‘And while they were sleeping the frog crawled [E: omitted prefix] out of the jar.’

In the post-interview sessions when asked about the aspect of VoM that they find most challenging, all of the learners mentioned the (non)-unidirectionality distinction. However, considering that the distinction is visible primarily in the use of the unprefixed VoM (a minority in the RMC and the LMC), it appears that the learners are not aware of other characteristics of their motion talk that are error prone. For example, asked about the difficulty of verbal prefixation, the learners contended that to differentiate between prefixes with similar meanings may be challenging, but none of the learners thought that they had difficulties with the process of prefixation itself (i.e. the choice of a prefixed vs. an unprefixed verb). However, the error analysis of path elements in the LMC proves otherwise.

In terms of path segmentation, the findings in this chapter have shown that the use of path segments (including bound prefixes and unbound prepositions) in the LMC is error prone in the path descriptions of the more and the less experienced learners, with
the percentage of erroneously used path prefixes ranging from 16% to 49% in the motion talk of the participating learner groups.

The prefixes are difficult for the RL2 learners to use for a number of reasons. First one has to decide whether or not they are necessary in descriptions of a particular motion event type, and current textbooks do not usually explain when prefixes are required. Prefixed and unprefixed VoM are simply introduced in separate instructional units, and to the best of my knowledge, the interaction of a motion event with boundaries (a crucial factor for determining whether a prefix is needed or not) is not generally offered in current textbooks.

The choice of an appropriate prefix is also complicated in Russian by the variety of available prefixes-satellites the semantics of which is not completely parallel to English prepositions or satellites. Most prefixes share similarities in meanings and proved to be difficult to distinguish from one another for the RL2 learners in spite of their high level of proficiency. For example, consider the following example:


The intention of the speaker was clearly to signal arrival, and the prefix do- in (26) does include the concept of arrival in its semantic field. However, do- is used in contexts when reaching a definite landmark is emphasized, typically as an achievement and as such is rarely used to open a narrative and encode arrival. The prefix pri- was used by the L1 Russian speakers to narrate the same motion event, e.g. consider the following example from the RMC:

27) [Bean] pri-ekhal na kakuiu-to avtostoianku. ‘[Bean] came [arrival-came] to some parking garage.’
Clearly, the distinction between the prefixes is very fine, and the context in which the motion event takes place needs to be evaluated by a speaker before an appropriate prefix can be chosen. However, the analysis of the learner narratives suggests that they do not distinguish between prefixes that express similar concepts and, therefore, may choose different prefixed verbs interchangeably. For example, consider the following example from the narratives of the same speaker, which provides almost back-to-back descriptions of the same type of motion events, but with different prefixes:

28) *I kogda on katal bochku drugaia mashina do-ekhala. [...] I potom eshche drugaia mashina pri-ekhala.* ‘And while he was rolling the barrel another car arrived [*do- + drove*] [...] And then another car arrived [*pri- + drove*].’

When learning how to use a prefix-satellite it is necessary to consider which prepositional phrases the prefix can be combined with since prefixes and prepositional phrases form close semantic bonds with each other in Russian (Chapter 5). Thus, if the prefix expresses boundary reaching, it is unlikely for the following prepositional phrase to express other types of interaction with the boundary. However, the learners made such mistakes most likely because they did not fully understand the semantics of the prefix and the satellite and their interaction with each other, i.e. consider

29) *Zhenshchina trener ona *pri-khodit iz-za ugla.* ‘The female coach she comes [*arrival’, i.e. boundary reaching-comes] from behind [boundary crossing] the corner.

An appropriate choice for the motion event encoded in (29) would be prefix *vy*- which describes motion ‘out of” the enclosed space, i.e. signals boundary crossing.

I have already pointed out that the domain of motion is typically represented in the pedagogical materials only through the group of the most frequent (non)unidirectional verbs; and this narrow focus has consequences not only for the domain of manner but
also for how path segmentation is acquired by the learners. In fact, directional VoM are an exception within the Russian verbal system in that they have a very high combinatorial potential, e.g. verbs *idi and khodit’ can combine with almost all motion prefixes (i.e. like all Russian manner verbs they can simultaneously encode path while preserving their manner meanings). However, as discussed in Chapter 5, the analysis of the RMC showed that high manner verbs in Russian do not freely combine with path prefixes, i.e. not all VoM can be freely paired with any prefixes. The RL2 learners appear to be unaware of this, as the LMC demonstrates, e.g.

30) *Trener skazal chto ahh vsem nado *u-lazit’ iz basseina. ‘The coach said that everybody has to [away-crawl] from the pool’.

31) *On podtolkal musornyi bak to shlagbauma. ‘He pushed [until –push] the garbage can to the gate.’

The verb *lazit’ does not combine with the prefix *u- (30), and the non-unidirectional verb *tolkat’ does not combine with the prefix *pod- (31), but unless less typical VoM are practiced and presented in the classroom, learners will not receive the necessary information to understand that not all VoM have a high combinatorial potential. Thus, to describe the same contexts the L1 Russian speakers used the verb *lazit’ but with the prefix *vy- or a different VoM, i.e. *u-khodit’ ‘away-go’. With regard to the context in (31), the most frequent choice in the RMC was the verb *pod-vezti’ ‘to-transport by vehicle’, because the barrel had wheels.

While the meaning of some prefixes appears to be easier to grasp for the learners (e.g. *v- ‘in’ and *vy- ‘out of’), other prefixes are more challenging. The meaning of the prefixes *v- and *vy- is relatively straightforward (i.e. boundary crossing) and corresponds to the English satellites *in and *out. But as we saw in Chapter 5, the semantics of some
other Russian prefixes are more conceptually complex and context-dependent. Thus, some prefixes-satellites may be defined by the meaning of the entire motion event (as is the case with the prefix \textit{za-}, which can signal different types of boundary crossing specified by the following prepositional phrases). Still, prefix \textit{za-} is translated in many textbooks as describing ‘movement behind an object’. Not surprisingly, the RL2 learners had difficulty with the prefix in the context in which it was most frequently used by the L1 Russian speakers in the RMC, i.e. ‘climbing as vertical movement onto another object’. Scenes that involved climbing were abundant in both stimuli and proved to be very difficult to use for the learners. In the context in which the L1 Russian speakers used the combination of the prefix \textit{za-} with appropriate motion verbs, most of the less experienced RL2 learners used an incorrect prefix or drew on non-manner path verbs like \textit{podniat’sia} ‘ascend’, e.g.

32) \textit{Vasia *na-lez na kamen’}. ‘Vasia climbed [on-climbed] a rock’\textsuperscript{1}.

33) \textit{Nu tochno ne znaïu, on podnial’sia skazhem tuda na derevo}. ‘Well I don’t know exactly (how to say it), let’s say that he ascended [\textit{podnial’sia}] the tree.’

The LMC showed that path descriptions portrayed in the stimuli were often beyond the lexical reach of the RL2 learners, as was the case with the choice of motion verbs. In the least proficient learner group, i.e. the “frog phase” less experienced participants, the percentage of incorrectly used errors was 49\%, which is suggestive of an almost random selection of a prefix by the learners. The hesitations, false starts, repetitions, and self-corrections discussed earlier in this section are also demonstrative of the learners uncertainty of the choice of prefix. Therefore, the use of all motion elements in the LMC, be it VoM or path elements, reveals learners’ relative inexperience with using VoM in

\textsuperscript{1} As I discussed in Chapter 3, prefixes \textit{na-} is often treated in the textbooks as meaning ‘on’, while in fact it refers not to the movement onto another object but rather to various types of surface contacts.
unrehearsed communicative contexts and considerable difficulties in attempting to do so in the context of the elicitation tasks used for this project.

6.5. Conclusion

The analysis of the RL2 learners’ motion descriptions conducted in this chapter included data from the quantitative analysis, sentence-level qualitative analysis, and insights from the post-interview sessions with the learners during which they had opportunities to express their opinions on the challenges associated with the study of motion talk. All three types of data point to the same conclusion: Russian motion talk is a highly challenging and cognitively taxing area for RL2 learners, which is evident from high levels of error generation and such characteristics of their motion narratives as hesitations, false starts, repetitions, and narrative breakdowns. More subtle signs of learner difficulties include avoidance of VoM and omission of complex motion events from the narratives.

The scope of learner difficulties revealed in this chapter are even more remarkable considering that they are not based on the motion talk of low proficiency students but on the performance of highly proficient and motivated learners. In fact, even the learners in the more experienced group stumbled over the use of VoM. The comparison of the error categories in the speech of the more and the less experienced groups, however, reveals important differences between the two participant groups. While the less experienced learners displayed difficulties with both the form-related error categories and the categories specific to motion talk, the more experienced learners’ speech contains a low number of form-related mistakes (e.g. conjugation, gender, case) but shows persisting
challenges with motion-encoding categories (semantics of a satellite, omission of a satellite, choice of a manner verb).

Additionally, most of the erroneously used verbs found in the LMC include VoM; regular non-motion verbs found in the advanced learners’ narratives are used with higher accuracy rate; the percentage of correctly used non-motion verbs ranges from 95 to 100% (cf. Appendix I). Therefore, VoM appear to present an added cognitive challenge even for the more experienced learners, which the form-related errors otherwise uncharacteristic of their speech suggest. In this respect, RL2 motion talk may not be an exception. General crosslinguistic research on motion talk shows that learners even at advanced levels of proficiency continue to have problems mastering motion-event talk in L2 (cf. Navarro & Nicoladis, 2005; Negueruela et al., 2006; Stam, 2006). Previous research, however, reported such learner difficulties with regard to the languages that belong to typologically different groups (e.g. V-framed Spanish vs. S-framed English). This study has attested difficulties experienced by high proficiency learners in the acquisition of the (supposedly) typologically similar motion talk (Russian and English have been described as S-framed languages).

These findings can be interpreted in two ways. The first possible conclusion is that typological differences in the encoding of motion meanings have no bearing on the L2 acquisitional processes, but it is unlikely considering the accumulated body of evidence that suggests otherwise (Chapter 2). The second plausible conclusion is that Russian and English are characterized by different patterns for encoding motion meanings. Indeed, the analyses of the RMC and the EMC conducted in Chapter 5 revealed significant differences in the preferred framing of motion talk in the narratives
of the two participant groups. The data of the advanced RL2 learners’ motion talk in this chapter offers empirical evidence for the fact that these dissimilarities between the two languages translate into tangible acquisitional difficulties for the learners of Russian.

In fact, as Chapter 5 has demonstrated, Russian motion talk, in contrast to English, is not characterized by one lexicalization pattern for encoding motion meanings. Depending on the interaction of the motion event with ground boundaries and the time frame, the speaker is to choose between three different lexicalization patterns in Russian. Additionally, we have seen that the lexicon for encoding motion meanings in Russian is characterized by a high level of specificity and diversity. Thus, RL2 language learners are not transferring into the same system of motion talk when they study Russian, rather, they transfer into a more complex system in conceptual, grammatically, and lexical terms. The challenges that they experience are therefore not surprising.

Nonetheless, besides reporting learner difficulties in using VoM, the error analysis conducted in this chapter also entails a positive insight. The comparative analysis of the narratives produced by the more and the less experienced learner groups revealed a visible improvement in the use of VoM by the latter group in comparison to the motion talk of the less experienced learners. This improvement is evident not only from the increased accuracy rates but also from the changes in the preferred lexicalization pattern. Accordingly, I propose the following acquisitional hierarchy characteristic of the motion talk of high proficiency level learners. Based on the analyses of the LMC, in acquiring Russian motion talk RL2 learners progress from

*favoring unprefixed VoM* (the “frog phase” data in the less experienced learner dataset)
to (somewhat overzealous) reliance on the prefixed VoM  albeit with a high error rate (the “Bean phase” data in the less experienced learner dataset)

to consistent reliance on prefixed VoM with lower error rates related to the choice of a satellite (the narratives of the more experienced learner group).

Thus, greater accuracy in motion talk and native-like lexicalization patterning is achievable. It is yet to be investigated which factors facilitate acquisition of motion structures in Russian: focused grammar instruction, communicative practice in unrehearsed communicative situation, abundant input, or the combination of all of the above factors. Chapter 7 will address the directions for future research in the area of motion talk. I will also build on the implication of the findings reported in this chapter for the field of RL2 language teaching and will offer pedagogical suggestions for both presenting the topic of VoM to RL2 learners and organizing communicative activities which would provide meaningful contexts for motion descriptions. This chapter has clearly demonstrated that RL2 learners suffer from insufficient understanding of this area of the Russian grammar and as such the chapter serves as the call for action addressed to the Slavic community concerned with improving the fields of RL2 teaching and learning.
Chapter 7

Crossed bridges: Conclusion

7.1. Introduction.

At the start of the project, I set out to explore how RL2 learners of Russian would perform on a series of narrative tasks rich in motion descriptions and to compare their performance to the L1 narratives of Russian and English participants. This study was motivated by pedagogical concerns. Having taught all levels of Russian to RL2 learners, I witnessed first hand that expression of motion is a particularly frustrating and challenging topic for beginning and experienced learners alike. As an instructor, however, I also came to the realization that the existing pedagogical materials that address the expression of motion are plentiful but formulaic, structure-driven, limited to a small group of motion verbs, and apparently ineffective considering students’ anxiety associated with the study of the topic. When I attempted to conduct a survey of empirical SLA studies on how this key pedagogical topic is acquired by RL2 learners, I discovered that such studies are utterly lacking. This dissertation was, therefore, conceptualized as the initial step towards exploring and interpreting RL2 learners’ difficulties in the expression of motion meanings. This chapter concludes the project by providing the summary of the findings (Section 7.2). It also outlines pedagogical contributions and implications of the findings for the fields of RL2 teaching and research (Section 7.3), presents the limitation of the study and outlines directions for future research on RL2 use and acquisition of motion structures (Section 7.4).
7.2. Summary of the findings

The exploration of how motion is encoded in the speech of RL2 learners required several preliminary steps. In fact, in the beginning it was necessary to define what a motion event is and which surface structures should be included in the investigation. To provide an informed evaluation of learner choices, it was also crucial to establish benchmarks, i.e. to explore how L1 speakers of Russian would express the same motion types. Collecting parallel motion descriptions from L1 English speakers was important for investing the role of crosslinguistic influence during error analysis. These concerns were addressed through the application of a methodological approach rooted in the collection of narrative-based motion corpora (RL2 LMC and L1-based RMC and EMC). CLCA provided empirical interpretive means for contrasting and exploring the expression of motion means by the three participant groups.

Traditionally, pedagogical materials for RL2 learners have included in their pedagogical focus only a relatively small group of (non)-unidirectional motion verbs and a relatively narrow selection of prefixes and prepositions. All of the above elements are typically treated as isolated grammatical topics (i.e. prefixed and unprefixed verbs, case assignment and prepositions are presented in separate instructional units). This approach provides a comprehensive overview of these elements, but their presentation in pedagogical materials is disjointed and restrictive in terms of the types of motion that RL2 learners are restricted to during motion practice. The variety analysis reported in Chapter 6 demonstrates that this approach does not embrace the wide variety of motion meanings that can potentially be encoded in Russian by the VoM which fall outside of the (uni)-directional class. Additionally, rooted in the specifics of Russian morphosyntax
such descriptions of motion elements do not allow for a comparative analysis of the structures involved in the expression of motion in English and Russian. For these reasons, the crosslinguistic typology of motion events put forward by Talmy (1989; 2000a, 2000b) was chosen as a theoretical basis for motion meanings in the two languages.

Talmy’s typology provided a suitable comparative foundation for this study as it specifies a number of conceptual core schemas universally encoded by human languages in motion talk, i.e. figure, manner, path, and ground. However, the typology describes Russian and English as belonging to the same typological group of S-framed languages, i.e. implies that all conceptual schema in the two languages are expressed through parallel surface structures. In contrast, the analysis of the RMC and the EMC revealed that the two L1 participant groups used diverging lexicalization patterns to describe the narrative stimuli. In the English corpus, only one lexicalization pattern was characteristic of motion descriptions (a classic pattern for the languages described as S-framed):

\[
\text{verb} \quad + \quad \text{satellite particle} \quad + \quad \text{prepositional phrase} \quad \text{GROUND}
\]

\[
\text{MANNER} \quad \text{PATH} \quad \text{(basic or high)}
\]

In Russian, on the other hand, several patterns emerged during corpus analysis. Manner in Russian is always encoded by VoM, similarly to English. In fact, Russian VoM were found capable of encoding a variety of diverse motion concepts (the variety of motion concepts retrieved from the RMC is 21% higher than that in the English corpus). In terms of path descriptions, the analysis of the RMC suggests that path encoding in Russian can vary and is dependent on the deictic interaction between motion path and perceptual boundaries of the motion ground. Specifically, if no boundary crossing in involved, the lexicalization pattern in Russian is similar to that in English, i.e. VoM encode manner
while unbound path elements (prepositions and/or adverbials) express path. However, when boundary-crossing and boundary-reaching event types were involved (the majority in the RMC), the surface structures formed a different pattern:

\[
\begin{align*}
\text{prefix-satellite} & \quad + \quad \text{verb} & \quad + \quad \text{prepositional phrase} \\
\text{PATH} & \quad \text{MANNER} & \quad \text{GROUND} \\
\text{(boundary crossing or boundary reaching)}
\end{align*}
\]

VoM in Russian were also retrieved in combinations with bound elements carrying aspectual and procedural nuances, i.e. in addition to encoding path, prefixation can provide spatio-aspectual contouring to motion events and, thus, creates yet one more possible lexicalization pattern:

\[
\begin{align*}
\text{aspectual prefix} & \quad + \quad \text{verb} & \quad + \quad \text{prepositional phrase} \\
\text{ASPECTUAL CONTOURING} & \quad \text{MANNER} & \quad \text{GROUND}
\end{align*}
\]

Therefore, Russian VoM are directly implicated in the expression of motion path which distinguishes Russian from English and other languages characterized by the S-framed pattern and places it in between the categories of V-framed and S-framed languages. Thus, although Talmy’s dichotomy plays a useful role in sorting out the multifarious dimensions of motion talk and has inspired much productive and instructive research in this area, the investigation of Russian motion talk illustrates that the typology is nevertheless a rough generalization. Talmy’s (2000a, 2000b) work is not based on actual discourse production analyzed through a contrastive corpus analytic framework. In general, typological distinctions often reflect tendencies rather than absolute differences between languages (Berman & Slobin, 1994). It is therefore unrealistic to expect from Talmy’s typology to describe motion structures of each individual language with a high level of precision. And while several earlier studies summarized in this dissertation have
shown that membership in the typology serves as a facilitative or an impeding factor in L2 acquisition (depending on whether learners’ L1 and L2 belong to the same or different typological groups), the results of this study suggest that caution needs to be exercised with regard to applying typological theories to practice without testing them first. Thus, upon conducting the analysis of the LMC and the L1 corpora, we can conclude that 1) Russian and English motion talk differ in terms of the surface structures that the L1 participants utilized for motion talk; and 2) the use of Russian motion structures presented a noticeable challenge for the RL2 learners in spite of their extended study of the language in the classroom and in study-abroad immersion.

Indeed, the analysis of the RL2 learners’ motion narratives revealed high rates of error generation in their use of motion structures; the errors affected the domains of semantics and morphosyntax both in the expression of motion manner and path. The highest error rates characterized the narratives of the participants recruited during the “frog phase” of the data collection: 45% of VoM (prefixed and unprefixed) and 49% of prefixes-satellites in their narratives were used incorrectly. Additionally, in this dataset most of the VoM were unprefixed (similar to English; other RL2 learners’ narratives and the RMC reveal the reverse pattern) and the majority of path descriptions were single-segmented (also the English pattern). These data led me to conclude that the features of the motion descriptions found in this group of narratives represent the lowest niche in the acquisition profile of RL2 motion talk. Thus, the RL2 learners at this level of experience with Russian motion talk preferred the following pattern:

unprefixed VoM + (adverbial) + prepositional phrase
MANNER PATH GROUND

1 The parentheses indicate that the use of adverbials is optional; nonetheless, as Chapter 6 showed, the use of adverbials was remarkably higher in the motion descriptions of the learners in comparison to the RMC.
This pattern is similar to that characteristic of English (the classic S-framed pattern), i.e. the learners who preferred it were most likely drawing on their L1 in encoding motion meanings in L2. Not surprisingly, the error analysis showed that for these learners underuse of prefixes-satellites and inappropriate choice of prefixes constituted the biggest challenge, as prefixes are specific to Russian motion talk.

In contrast, the Bean narratives of the less experienced group contain a high number of prefixes-satellites; in fact, the majority of their motion descriptions consist of prefixed VoM. The same pattern is characteristic of the motion talk of the more experienced learners. Thus, both groups show advancement in their reliance on the Russian motion pattern, namely

\[
\text{prefix-satellite} \quad + \quad \text{verb} \quad + \quad \text{prepositional phrase}
\]

\[
\text{PATH} \quad \text{MANNER} \quad \text{GROUND}
\]

However, the Bean narratives of the less experienced group still contain a high number of errors: 38% in the use of VoM (prefixed and unprefixed) and 32% in use of prefixes-satellites. These narratives – a sharp contrast from the “frog phase” data - also contain a high number of complex paths (prefixed VoM + an unbound path element), in fact, a greater number in comparison to the narratives of the more experienced learner group and even L1 Russian participants. Therefore, it appears that RL2 learners pass through the stage of overgeneralization in reaching the Russian pattern for encoding motion structures, i.e. they heavily rely on the use of prefixes-satellites without being able to properly understand the meaning of Russian prefixes or distinguish among the different types of how motion grounds that interact with boundaries of motion events.

The more experienced learners performed better than the less experienced learners
both on the frog and Bean tasks. Their errors were limited to 15% and 23% in the use of VoM and 22% and 16% in the use of prefixes-satellites in the frog and Bean narratives, respectively. While the percentage of errors is surprisingly high for this advanced group of learners, it still shows a considerable improvement in comparison to the less experienced participants, especially ones recruited during “the frog phase”. Additionally, the narratives of the more experienced learners show a lower number of form-related errors in the use of motion structures (conjugation, gender, number, person) and less “learner talk” characteristics (e.g. repetitions, self-corrections, false starts), which suggests that overall the task of unrehearsed motion descriptions was less taxing for them. However, even the more experienced learners continued to have difficulties with the categories specific to motion talk such as the semantics of manner verbs and prefixes and underuse of prefixed VoM, although at a more reduced rate than that of the lower proficiency participants. Overall, there is no denying the fact that Russian motion talk is a highly challenging and cognitively taxing area for RL2 learners.

7.3. Implications of the findings for the fields of RL2 teaching and research

This study has made several novel contributions to the field of RL2 teaching and learning. First of all, the project reports empirical data related to the use of motion structures by the RL2 learners and analyzes the nature of the difficulties that the learners experience in unrehearsed motion talk. Secondly, the study bridges the insights from two paradigms, i.e. general typological research of motion talk and the work of Slavic grammarians and lexicologists. The method grounded in these two paradigms allowed me to achieve to goals. First, it enabled me to conduct a comprehensive analysis of motion
talk in Russian. Secondly, it allowed me to provide unified descriptions of lexicalization patterns involved in motion descriptions in the speech of L1 Russian speakers and RL2 learners, which had not been done before. Thirdly, the study outlines the acquisitional profile of RL2 motion talk representative of the motion descriptions in the LMC. This profile is likely to extend to all proficient learners of Russian with higher vs. lower levels of using Russian outside of classroom contexts. However, only additional empirical research can confirm this possibility.

The analyses of the learner corpora also provide important insights which can inform the fields of RL2 teaching and materials development by pointing out the weak areas and suggesting possible areas for improvement. Thus, in chapter 3 I reviewed the traditional approaches to presenting motion structures in currently available teaching materials and on the basis of this review concluded that the pedagogical spotlight in these materials is limited only to the group of VoM that encode the (non)-unidirectional distinction. However, one of the central findings of this study is that Russian is characterized by a diverse VoM repertoire which extends far beyond the closed group of the directional verbs, i.e. a wider selection of VoM needs to be addressed by the teaching materials in addition to the directional verbs. Support for this claim stems from the results of the comparative corpus analysis: in the narratives of the RL2 learners the variety of VoM was considerably lower than in the RMC; additionally, the choice of context-appropriate manner of motion was a persistent problem throughout the learner narratives. As the learners themselves indicated in the post-interview sessions, they felt constrained by their restricted VoM lexicons and attributed these problems to the fact that only a small group of directional verbs make their way into the instructional materials, even for
advanced level textbooks. As radical as this may sound for those accustomed to the traditional approach to presenting VoM (in which the closed category of the directional verbs has the priority), it might be beneficial for RL2 learners to be exposed to use of the (non)-unidirectional verbs along with all other motion verbs from the beginning of the instructional program, given that the directional verbs do fit into the overall system of Russian motion talk except for the specifics of their semantics and irregular form-building paradigms. Naturally, it would be impossible to introduce a wide variety of VoM and path elements to beginning students. However, the introduced verbs should not be limited to the group of the directional verbs only and from the beginning, motion talk should be allotted increased practice time in the curriculum. The variety of presented motion elements should increase in higher level RL2 courses. Corpus research based on Russian motion talk could serve as a useful tool for identifying the most frequently used VoM to determine which motion verbs have to be presented first.

The results of the path analysis in the LMC highlight the need for the unified presentations of motion structures as opposed to the disjointed approach dominant in current textbooks. This means that instead of separating unprefixed VoM, prefixed VoM, and prepositions into separate chapters, learners should be presented with descriptions of the patterns that characterize Russian motion talk, including the explanation and practice related to how different types of boundary-interaction events can affect the choice of a lexicalization pattern appropriate for each specific motion event (as described in Chapter 5). The fact that both the less and the more experienced learner groups were challenged with the choice of appropriate path elements is most likely indicative of the fact that current teaching materials provide simplistic explanations of the meanings of path
elements. In fact, as Chapter 3 has shown, definitions of prefixes and prepositions are too often based on fragmented rules of thumb rather than unified conceptual knowledge. Additionally the textbooks do not focus on the role contextual factors and speaker perspective, which as we have seen (the analysis of the RMC), play a defining role in the choice of appropriate prefix-preposition combinations. Explanations of the meanings of prefixes and prepositions need to account for how conceptualizations of spatial meanings are created during speech to create maximal coherence within sentential context and relevant real-life knowledge. However, the task of providing clear pedagogical explanations is not easy considering that spatial language has not been sufficiently studied and described even in theoretical terms (cf. Bowerman & Levinson, 2001; Tyler & Evans, 2001).

The presentation of motion elements in the instructional materials may be only part of the problem. It is likely that the time allotted to the presentation and practice of Russian motion talk in the curriculum is not sufficient. The error analysis conducted in this dissertation shows, however, that the encoding of motion meanings may be a particularly taxing conceptual domain for RL2 learners. Additionally, the more experienced group showed notable improvements in using native-like lexicalization patterns, as well as in terms of variety and frequency of motion elements in their narratives and higher accuracy rate, all of which suggest that increased practice results in higher performance. Therefore, RL2 curricular need to be revised to account for the semantically and structurally complex topic of Russian motion talk.

The acquisitional profile of motion talk outlined in this dissertation suggests that RL2 learners may benefit from the presentations of the lexicalization patterns underlying
Russian motion talk early on in their acquisition of motion structures. The error analysis of the narratives produced by the lower proficiency groups suggests that instruction which involves the discussion of how boundary-reaching and boundary-(non)crossing influence path encoding may also be advantageous to the extent that it guides RL2 learners in making informed choices about the use of prefixed vs. unprefixed VoM. The more proficient RL2 learners become, the wider variety of VoM and path elements should be included in the teaching materials. In current textbooks usually the same motion elements (i.e. directional VoM) are recycled in the materials for beginning, intermediate, and advanced learners. Recent acquisitional studies suggest that making L2 conceptual schemata visible to language learners can result in increased levels of metalinguistic awareness, accuracy and, control in the use of these structures (cf. Lantolf & Thorne, 2006; Negueruela, 2003).

Post-interview sessions with the learners reflected their conviction that Russian motion cannot be mastered unless one is immersed in the Russian language and culture. The learners based these conclusions on their own experiences of improving their proficiency in Russian motion talk during study abroad and learning how to use VoM on the basis of meaningful contextualized interactions. However, these learners also reported that they were familiar only with traditional structure-oriented grammar instruction in the area of motion talk (i.e. sentence level exercises and close-ended tests). In fact, the review of teaching materials for RL2 learners shows that the pattern for presenting the topic of motion talk has not changed significantly from the early textbook by Stilman (1951). New methods for teaching Russian motion talk are therefore long overdue. The alternative instruction that I propose here would offer a comprehensive presentation of
how the concept of motion is encoded in Russian (in line with the suggestions and insight outlined in this study) plus contextualized practice of motion description in communicative contexts. Sample tasks would include thematic dialogues and role plays, but also narrative description tasks similar to the ones used for data elicitation, including movie recalls, personal story-telling, and summaries of literary works.

Considering the differences in the encoding of motion meanings in English and Russian, learners might benefit from comparative corpus-based presentations of how the same motion events are portrayed in the two languages. Moreover, materials developed on the bases of the learner motion talk might be highly effective as the instructional foundation. Indeed, learner corpora offer interesting possibilities in this area as a tool suited not only for learner language analysis but also for data-driven teaching and learning. A detailed discussion of how to use learner corpora for form-focused and awareness-raising instruction can be found in a recent corpus-based instructional manual for teachers and learners of advanced Russian (Pavlenko & Driagina, 2006). A workbook for the learners, which accompanies the manual also includes a variety of activities for the use of motion structures in RL2 classrooms in meaningful contests (Driagina & Pavlenko, 2006). Thus, in these materials learners are invited to work with a retrievable corpus (www.calper.la.psu.edu) that partially includes the data discussed in the dissertation (the Bean dataset) and different sources of learner languages. The corpus allows learners to retrieve contextualized examples of motion structures in the speech of L1 and L2 speakers and, thus, to notice gaps between their L2 and the target forms. This approach is particularly useful for metalinguistic awareness-raising in which learners’ attention is drawn to the most problematic areas of the RL2 motion talk. Working with
samples of motion talk produced by other RL2 learners of similar proficiency levels helps learners discover appropriate contexts for their own lexical and syntactic choices. Corpus-driven exercises are also a useful resource for including contextual factors and interpretation in the teaching of motion talk. In the workbook, students are first asked to locate motion references in the narratives available from the retrievable corpus; they are also encouraged to work with motion vocabulary in a larger corpus of Russian-language materials (www.RusCorpora.ru). This interpretive work allows them to locate appropriate models for encoding their own motion meanings in discourse-level communicative contexts.

7.4. Limitations of the study and directions for future research

While the study answered a number of previously unexplored questions, it did not encompass all of the issues that are yet to be explored with regard to the encoding of motion meanings in L1 English and, particularly, L1 Russian and RL2 learners’ motion talk. The most significant limitation of the project is that it is not genuinely longitudinal and as such it is only able to offer an informed hypothesis about the proposed acquisitional profile of motion talk that characterizes the development of the RL2 learners’ interlanguage. Similarly, while the study does examine motion descriptions in the speech of several learner groups with varying levels of experience with Russian, all of the participants were highly proficient learners. A longitudinal or a cross-sectional study would be able to provide a more revealing illustration of the difficulties that learners experience at different levels of proficiency. However, the focus on the advanced learners has highlighted the fact that the notion of advanced proficiency is multifaceted and can
vary from one conceptual domain to the other depending on the typological differences between L1 and L2. In fact, while all of the participants were highly advanced learners of Russian, they were not equally proficient in motion talk and did not have equal experience using Russian in communicative contexts. The analysis of the LMC has allowed me to identify three different levels of proficiency in motion talk among the advanced learners and, thus, shed light on the shortcomings of current L2 pedagogy.

Another limitation of the study is virtually inevitable when highly proficient learners are recruited: all of the learners participating in the study had different learning histories. In fact, prior to their studies at Middlebury College Russian Summer School where they were recruited for the study, all of the participants had been enrolled in RL2 courses all over the nation, which means that they were exposed to different instructional methods, varying types of activities and teaching materials. They also had different levels of experience with open-ended tasks such as the ones used in this project and diverging sources / amount of exposure to Russian motion talk in communicative contexts. Therefore, it is difficult to establish with precision which specific factors led the more experienced learner group to their superior ability in the use of motion structures in comparison to the less experienced learners. These factors are to be explored in further studies with more homogeneous learner groups.

With regard to the descriptions of the motion structures found in the RMC and the EMC, this dissertation highlighted only the tip of an iceberg, as the discussion touched upon the most problematic lexemes only in the context of the specific elicitation tasks used. There is much work to be done with regard to exploring and describing similarities and differences between the motion lexicons Russian and English related to both manner
and path.

It is remarkable that this empirical study devoted to the acquisition and use of VoM by RL2 learners is one of the first studies in this area, considering the notoriety of Russian VoM among teachers and learners of Russian in the US. For the fields of RL2 learning and pedagogy to become more effective, more empirical studies which investigate learner language need to be conducted. At the present moment, the field of RL2 acquisition is truly impoverished in terms of empirical research.

Today most graduate Slavic programs in the US are focused on literary studies (Russian literature and comparative literature) rather than on language acquisition. Most of the faculty in the graduate programs are accordingly teaching literature and may be interested in literary pursuits rather than investigating pedagogical issues. The programs of the annual convention of the American Association of Slavic and Eastern European Languages (AATSEEL) are a good reflection of the distribution of research interests: the language pedagogy section is small and pedagogical discussions are typically limited to methodological concerns and suggestions rather than to the analysis of actual data on language acquisition. Therefore, the apparent demand for acquisitional research is not reflected in the dominant interests of the professional Slavic communities. Logically, for the field of RL2 pedagogy to progress, changes need to be made within Slavic graduate programs to cultivate and support the interest of a new generation of scholars interested in research in RL2 learning and teaching.

This dissertation therefore could be viewed as a call for action for Slavic specialists. It may be a small but it is nevertheless and important initial step towards exploring RL2 learners’ use of Russian motion expressions and acquisition challenges
they face. I hope that the insights gained from the study will facilitate and instigate further researchers aimed at re-evaluation and fine-tuning of the existing language teaching pedagogy. I also hope that the findings will inspire the creation of innovative teaching materials in the area of motion talk focused on unrehearsed spoken language, fostering learner self-expression, and close analysis of learner language.
Appendix A

Sample conjugational paradigms of regular verbs: *delat’* (imp.) and *sdelat’* (pf.) ‘do’

<table>
<thead>
<tr>
<th>Present Tense</th>
<th><em>delat’</em></th>
<th><em>sdelat’</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Person Singular</td>
<td>delaiu</td>
<td></td>
</tr>
<tr>
<td>2nd Person Singular</td>
<td>delaesh’</td>
<td></td>
</tr>
<tr>
<td>3rd Person Singular</td>
<td>delaet</td>
<td></td>
</tr>
<tr>
<td>1st Person Plural</td>
<td>delaem</td>
<td></td>
</tr>
<tr>
<td>2nd Person Plural</td>
<td>delaete</td>
<td></td>
</tr>
<tr>
<td>3rd Person Plural</td>
<td>delaiut</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Past Tense</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Masculine</td>
<td><em>delal</em></td>
<td><em>sdelal</em></td>
</tr>
<tr>
<td>Feminine</td>
<td><em>delala</em></td>
<td><em>sdelala</em></td>
</tr>
<tr>
<td>Neuter</td>
<td><em>delalo</em></td>
<td><em>sdelalo</em></td>
</tr>
<tr>
<td>Plural</td>
<td><em>delali</em></td>
<td><em>sdelali</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Future Tense</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Person Singular</td>
<td><em>budu delat’</em></td>
<td><em>sdelaiu</em></td>
</tr>
<tr>
<td>2nd Person Singular</td>
<td><em>budesh’ delat’</em></td>
<td><em>sdelaeah’</em></td>
</tr>
<tr>
<td>3rd Person Singular</td>
<td><em>budet delat’</em></td>
<td><em>sdelaeet</em></td>
</tr>
<tr>
<td>1st Person Plural</td>
<td><em>budem delat’</em></td>
<td><em>sdelaeem</em></td>
</tr>
<tr>
<td>2nd Person Plural</td>
<td><em>budete delat’</em></td>
<td><em>sdeleate</em></td>
</tr>
<tr>
<td>3rd Person Plural</td>
<td><em>budut delat’</em></td>
<td><em>sdelaiut</em></td>
</tr>
</tbody>
</table>
Appendix B

Sample conjugational paradigm of a unidirectional verb: *idti* (imp.)

<table>
<thead>
<tr>
<th>Present Tense</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1st Person Singular</td>
<td><em>idu</em></td>
</tr>
<tr>
<td>2nd Person Singular</td>
<td><em>idesh’</em></td>
</tr>
<tr>
<td>3rd Person Singular</td>
<td><em>idet</em></td>
</tr>
<tr>
<td>1st Person Plural</td>
<td><em>idem</em></td>
</tr>
<tr>
<td>2nd Person Plural</td>
<td><em>idete</em></td>
</tr>
<tr>
<td>3rd Person Plural</td>
<td><em>idut</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Past Tense</th>
<th><em>shli</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Masculine</td>
<td><em>shel</em></td>
</tr>
<tr>
<td>Feminine</td>
<td><em>shla</em></td>
</tr>
<tr>
<td>Neuter</td>
<td><em>shlo</em></td>
</tr>
<tr>
<td>Plural</td>
<td><em>shli</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Future Tense</th>
<th><em>budu idti</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Person Singular</td>
<td><em>budu idti</em></td>
</tr>
<tr>
<td>2nd Person Singular</td>
<td><em>budesh’ idti</em></td>
</tr>
<tr>
<td>3rd Person Singular</td>
<td><em>budet idti</em></td>
</tr>
<tr>
<td>1st Person Plural</td>
<td><em>budem idti</em></td>
</tr>
<tr>
<td>2nd Person Plural</td>
<td><em>budete idti</em></td>
</tr>
<tr>
<td>3rd Person Plural</td>
<td><em>budut idti</em></td>
</tr>
</tbody>
</table>
Appendix C

Sample narratives based on “The Swimming Pool” episode:
EMC and RMC

EMC: O.K. Eh the first clip was Bean movie. Um kinda classic. Ahh as Bean is very humorous and everything so I kind of expected a humor-full skit. And the skit began with Bean walking into a parking lot and he pulled in a little bit too far away from the meter and he couldn’t reach the ticket. So therefore he reached in and miraculously he had a little clamp to go and reach the ticket. So then he was able to finally get into the parking lot. And he sped away into a parking space in his little yellow car. Ehh the next scene is him in a - yeah the parking lot was actually parking lot to a pool. And he is in the pool and he eh comes out in his tiny basing suit. And sees uhh there’s a shot where there are people playing water volleyball and then there’s another shot where the children are sliding down the little elephants into the pool. And of course Bean is intrigued by the elephants and he goes to the elephants to go slide down them also. He walks over to slide down them and pats the elephants on his way down. But before he gets to actually slide down them a lifeguard comes and stops him. And –ehh then there is another little bit of humor where he is trying to get off the elephants and he slips and is not very successful in that. Then uh he realizes that he can’t do that so he go/goes and runs to the eh the other area of the pool where the people were playing water volleyball. And from there he is intrigued by eh the diving boards and proceeds to walk up them. So he goes to the diving board and he passes the first of the diving board going up to the/ eh the diving board with a larger height. Eh he’s gonna go and try and jump off of it. But then once he gets to the edge he realizes how high it actually is. He gets a little frightened. And he does this whole scene of him clinging to the/to the railing. Then clinging to the floor. Then slowly creeping over staring over to the side of the pool. And he doesn’t wanna do it. And he does all these things to express his anxiety for the actual action of jumping off the diving board. And then he realizes that his time’s cut short when two children/two young boys come up aand kind of provoke him to jump because they are waiting in line. So (2) again he starts creeping over to the edge of the pool. He tries and makes an attempt by kneeling down and then he just rolls over onto his back instead of his rolling forward into the pool. Then uh he slowly creeps his legs over and hangs himself from the diving board with his hands. His legs are over the side of the diving board. And he reaches and one hand comes off and then the other hand is he is hanging on there and it doesn’t look like he’s moving until one of the boys previously mentioned runs up and steps on his hand. And then he falls into the water. Uhh then next it seems that everything was O.K., that everything wasn’t that bad but it appears that Bean’s basing suit had come off when he entered the pool. And like in most Bean’s skits where everything that could possible go wrong goes wrong the basing suit goes over to the edge of the pool and a little girl picks it up. Therefore Bean is naked in the pool and then the lifeguard goes and calls everyone out of the pool. Therefore Bean eventually has to leave the pool naked. And everyone leaves the pool but Bean manages to evade the lifeguards by ducking underneath the water in a very none in conspicuous way. And then leads on to getting out of the pool once the coast is clear. Now, he thinks the coast is clear when he’s trying to run out of the pool. Aand uh another lifeguard comes in through the door he attempts to exit. So he runs and hides
behind a pillar. And once ehh he thinks the coast is clear with that lifeguard coming in appears that a bunch of women come in / in bathing suits and they see him naked and scream. And he runs out and I suppose runs to the locker room where he then got changed returned to his car and left the pool area.

RMC: Ааам мистер Бин приехал в бассейн и он приехал на парковку на такой очень маленькой машине и он хотел взять парковочный билет, я не знаю как это называется. Ааа но не мог, потому что он подъехал/он был слишком далеко. Тогда он достал какую-то палку, я не знаю что это за палка была. Ну в общем он достал этот билет. Ааа потом он пришел в бассейн и там плавали люди и дети. И также был детский бассейн насколько я поняла. И он увидел как в детском бассейне ааа дети катаются с детских горок, скатываются вниз в бассейн. И он решил ему это понравилось, он решил тоже попробовать. Ааа но когда он уже в общем уселся в эту горку и тут он увидел что пришел спасатель и спасатель ааа увидел мистера Бина на этой горке и закричал что Уходи отсюда. В общем нельзя. И тогда/ а мистер Бин уже был готов съехать. И он испугался я так понимаю и начал карабкаться вверх по этой горке. Ну нельзя значит он пошел в большой бассейн. И тут когда он подходил к большому бассейну он увидел ааа вышку для ныряния с которой ныряют. И в общем он заинтересовался ею и решил тоже попробовать я так понимаю. Подошел к этой вышке, забирается по ступенькам. Там сначала одна небольшая. Он ее пропустил, полез на самый верх. Залез, подошел к краю, увидел что бассейн очень далеко внизу. Он испугался и начал пятыться назад. Ну может у него голова там закружилась не знаю. Ааа в общем сначала он пятился назад просто, потом он присел, то есть видимо это казалось ему безопаснее и стал назад уже карабкаться. Потом решил видимо что все-таки нужно уже спрыгнуть. Он стал карабкаться вперед. Но когда он увидел что там все так же высоко, он опять передумал, то есть испугался и ну опять начал производить всякие манипуляции, садиться на корточки, цепляться за перила и так далее. Ааа потом пришли два ребенка, подростка и стали наблюдать чем это все закончится. Ааа значит тогда мистер Бин решил что все-таки нет, надо спрыгнуть с этой вышки и он /он подошел к ней и присел на корточки, закрыл глаза, руки вытянул вперед и начал раскачиваться. После того как он раскачался достаточно он аа упал почему-то назад а не вперед. Вот и видимо он подумал что он я не знаю или упал в бассейн или что-то. Ну в общем он лежал там какое-то время. Потом он решил все-таки что можно значит спрыгнуть. Тогда он уже зацепился руками и стал ногами спускаться и то есть он видел в общем на руках. И понемногу понемногу к краю то есть как бы к краю платформы, и он уже висел на одной руке. И вот здесь я не очень поняла момент и потому что спасатель пришел и посмотрел на него каким-то образом. Но он не как по-моему не отреагировал. Ааа и тут значит один из подростков. Они там смотрели на часы до этого какое-то время, решили что видимо хватит мучаться. Он подошел и наступил ему на руку, и тот упал в бассейн. Упал в бассейн, вынырнул, смотрит этот спасатель и девушка спасательница садятся на стул/ на чем они там сидят не обращают на него внимания. И он /тут я опять-таки не поняла или они не обращали внимания и он хотел чтобы на него обращали внимание или наоборот он не хотел чтобы на него обратили внимание. Ну в общем он стал там усилию плавать и нырять. Потом спасатель всем сказал всем из бассейна выходить но
мистер Бин почему-то не вышел. И он опять значит/ здесь опять разговор спасателя и спасательницы-женщины/девушки спасателя и когда спасатель повернул голову в его сторону/в сторону мистера Бина тот нырнул. Потом когда тот спасатель ушел, он опять вынырнул и поплыл к берегу, уже вылез из пустого бассейна. Дальше опять я не поняла как он оказался на/на общей территории голый. В общем сначала он там скрывался от девушки-спасателя, потом от девушек в бассейне. В общем они его в конце концов увидели, завизжали, он испугался и убежал. И последний кадр он с парковки уезжает на машине.
Appendix D

Sample narratives based on “The Parking Lot” episode:
EMC and RMC

**EMC:** O.K. The last clip was again another Bean’s skit. Uhh probably where the last one left off/ the first skit left off. Umm he is exiting a parking lot. Places in his ticket to receive the fare. And the fare is exuberantly high. I believe it read 16 ponds and that’s about (2) 30 American dollars so that was/that is a lot to pay for a parking fare so. Umm so Bean uses his immense emm knowledge of avoiding things and getting himself into trouble. So he tries to exit by watching another person exit and tailgating them basically out the/the door past the bar – ‘cause you need to pay the fare I order for the bar to raise. So he (swirls) around the parking lot and barely misses the - the bar closing on him. And then he proceeds to back up into a parking spot and wait for the next person to come and exit aand no one does. So then Bean gets out of his car uhh measures the height of his car to see if it’s possible for h/for him to get underneath the bar and it proves that he can’t so then he goes over to where the machine is that hands out the tickets. And he tries to force the bar open by hitting the machine and that doesn’t work. And then he tries to stump on the sensor in front of the ticket dispensing machine and that doesn’t dispense a ticket so he goes around the corner and finds a heavy rolling barrel and rolls it over the sensor and the sti/ticket is produced. So he takes the ticket, the gate opens and he drives his car through the gate. And then he is stuck between the gate and the heavy barrel which he placed on the sensor. So then he wheels the sensor uh the barrel away from the sensor and then proceeds to drive forward. But then a car comes aand in front of him and stumps/ehh stops in front of the sensor therefore then taking the ticket and making Bean be forced to reverse and go back to wh/ where he started from which was behind the gate. So now Bean is stuck behind the gate again. And then he reverses completely back all the way about/I’d say about the entire length of the parking lot. And he’s going to attempt to speed through the bar. He sees a car that is approaching the/the sensor and then he turns his car on and speeds past it. So once/ if he times correctly the ticket is taken then the gate will open and then Bean will be able to speed through. He does this and the cars that eh which touch the sensor after have no choice but to reverse and it tips over and falls on its side and Bean gets out of the parking lot without having to pay the fare.

**RMC:** Фильм был про мистера Бина, кажется, он собирался выезжать с платной стоянки, вставил чек в кассовый аппарат, ему выдали что, видимо, платить придется очень много. И ему видимо денег не хватит. Он э посмотрел в сторону и увидел, что на вход, когда заезжают машины, то шлагбаум поднимается сам. И он решил немного схитрить. И - за/и таким образом выехать из гаража и не заплатить за стоянку. Э машина выехала, шлагбаум был поднят, но как только он подъехал к шлагбауму, шлагбаум опустился. Он отъехал в сторону. Но, видимо, куда-то торопился и слегка нервничал. Посидел в машине, поерзал, вышел из машины, смерил ее по высоте, видимо, рассчитывал, что проедет под шлагбаумом, так как машина была сравнительно небольшая. Э подошел оказалась, что не проедет, по высоте не проходит. Э вышел за другую сторону шлагбаума,
видимо, он считал, что там ориентируется по весу, и шлагбаум поднимается, попрыгал шлагбаум не реагирует. Тогда он сходил куда-то за угол, и привез оттуда какую-то большую металлическую кольямагу. Шлагбаум поднялся, он з усевался в машину, выехал, но собрался з убрал эту кольямагу и уже собрался уезжать, как тут з въезжает в гараж машина. Ему пришлось сдать назад, чтоб машина могла въехать. Э машина въехала, шлагбаум снова закрылся, и он не успел въехать из гаража. Ну, видимо, он не захотел эту кольямагу тащить еще раз, чтоб можно было снова въехать, поэтому он отъехал вглубь гаража, стал сидеть и ждать, когда же появится другая машина. Тут появилась другая машина. Он долго за ней следил, видимо, чуть ли взглядом ее ни гипнотизировал, чтобы она въехала именно в этот гараж как только значит машина остановилась на въезде и стала дожидаться, когда поднимется шлагбаум, мистер Бин разогнал свою маленькую машинку, вот, и выехал очень быстро из гаража. Въехал так быстро, что машина, которая собиралась въехать, отъехала назад и так неловко, что перевернулась набок.
Appendix E

Sample narratives based on the frog story:
EMC and RMC

EMC: The first picture, the little boy and his dog and they caught a frog and he is sitting in a jar out there. Happy looking at the frog having fun playing with the frog, then the boy and the dog go to sleep. And the frog climbs out of the jar. When the boy and the dog wake up and they see that the jar is empty and the wonder where the frog is. So they start looking, checks his boots, the dog checks the jar searching for the frog. Then he looks out the window, calls for the frog, and the dog has the jar stack on his head. Then the dog falls out of the window and breaks the jar but he’s okay. Then the boy puts on the boots and he goes outside in the woods to look for the frog, but the dog sees a beehive so now he’s barking at the beehive, and he is all excited and happy and the boy is still looking for the frog. He finds a hole in the ground and looks in and calls for the frog. Then the gofer jumps out and bites him on the nose, and the dog is still barking at the beehive. Then the little boy climbs on the tree, and there is a hole in the tree and he calls in and the dog knocks the beehive over. So then the owl comes out of the tree and he (causes) the boy to fall down and all the bees from the broken beehive chase after the dog. And then the owl chases after the boy until he climbs up a big rock so he can see over it so he can look for the frog. But then the branch he in leaning on turns out to be antlers and there is deer who is very upset that the little boy was climbing on him. So he carries the boy all the way over and tosses him over the hill. And him and the dog fall over the hill, but they are okay they’re not hurt too badly, they land into a pond. Then the little boy hears something, so he tells the dog to be quite while he looks over the log to see if it’s the frogs. And it is. And it’s the frog and his wife frog and babies frog. And they are all sitting together happy and the boy and the frogs are smiling b/c they see the big frog family. So he takes one of the baby frogs back with him and he is saying goodbye to the whole family of frogs.

RMC: Жил-был мальчик, у него была собачка Динка. Они вечером пошли гулять и нашли лягушку. Они ее поймали и посадили в банку. Вечером мальчик с собачкой уснули, а лягушка выпрыгнула из банки и побежала искать свою семью. Когда утром мальчик проснулся с собачкой, то они обнаружили что лягушки в банке нет. Они начали искать ее везде, смотрели в сапогах, под кроватью, под стулом. Собачка тоже искала, помогала ему и засунула голову в банку. Мальчик решил выглянуть в окошко и позвать лягушку. Собачка выпала из окна, банка разбилась. Тогда они решили пойти искать собачку на улице. Они вышли из домика и увидели норку. Ааа а собачка заметила на дереве висящий улей. Она начала бегать вокруг него, и когда она прыгнула то осы вылетели из этого улья и начали за ней бегать за собачкой. Мальчик заглянул в норку, из норки выпрыгнул суслик. Он понял что там нет лягушки и отправился искать дальше. Потом он заглянул в дупло на дереве, оттуда вылетела сова, мальчик испугался и упал с дерева. А тем временем собака разозлила ос и они побежали мм / полетели ее догонять. Когда они бежали, наткнулись на большой камень, мальчик на него залез и решил подержаться за
кусты. Когда он дотронулся до этих кустов, оказалось что это вовсе не кусты, а там стоял олень, это были его рога. И олень схватил его и потащил к обрыву. Он их скинул в обрыв и они упали в пруд. В пруду они увидели интересное бревно. Когда они заглянули за него, они увидели что там сидит лягушонок. И он там был не один, их сидела целая семейка. Они забрали своего лягушонка и отправились домой.
Appendix F

Participant questionnaire

1. Name:

2. Gender: M___ or F___

3. Age:

4. Academic Year:

5. Major:

6. Language experience:
   a. What foreign languages do you know?
   
   b. On the scale from 1 (minimal) to 7 (native or native-like), evaluate your skills in the languages you know:

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<th>Foreign lan-ge</th>
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<th>Foreign lan-ge</th>
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<td>Writing</td>
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   c. Please, answer the following questions:

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<th>Foreign lan-ge</th>
<th>Foreign lan-ge</th>
<th>Foreign lan-ge</th>
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<td>How old were you when you started studying these languages?</td>
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<td>With whom and in which contexts (home, university, etc.) do you usually use these languages? How regularly?</td>
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<td>Where and for how long have you been studying these languages?</td>
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<tr>
<td>Have you lived in the country where these languages are spoken? Where and for how long? Did you study these languages abroad formally?</td>
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Appendix G

Informed consent form

1. Data collection in the US

Informed Consent Form for Social Science Research
The Pennsylvania State University

Title of Project: Motion Talk in Russian

Principal Investigator: Viktoria Driagina, Linguistics and Applied Language Studies, 305 Sparks Building, Pennsylvania State University, University Park, PA 16802
E-mail: vvd105@psu.edu
Tel. 720-261-5289

Advisor: Dr. James Lantolf, Professor, Applied Linguistics Department, 304 Sparks, Pennsylvania State University, University Park, PA 16802
E-mail: jpl7@psu.edu
Tel. 814-863-7038

1. Purpose of the Study: The purpose of this research is to examine how American learners of Russian describe motion events and how their descriptions compare to the speech of native Russian speakers. The goal of this research is to facilitate development of teaching materials for advanced learners of Russian.

2. Procedures to be followed: You will be asked to tell a story based on a wordless stimulus. You will also be asked to answer the interviewer’s questions about your history of learning Russian and your experience with learning Russian motion expressions. The interview will be audio and video recorded.

4. Benefits: There are no immediate benefits for you for participating in the study. The benefits to society include development of instructional materials for teaching and learning Russian at an advanced level.

5. Duration/Time:
The experimental session will not exceed 1 hour.

6. Statement of Confidentiality: Your participation in this research is confidential. Only the Principal Investigator will know your identity. To make sure that your identity is confidential, you will be assigned a code to be used for all aspects of data handling. Only the Principle Investigator will have the list of codes associated with personal identifiers.
All the materials associated with collected data will be stored and secured at the Principle Investigator’s office in 312 Sparks, Pennsylvania State University, University Park, PA. All video and audio tapes will be stored in a locked file cabinet in 312 Sparks. All computer files associated with personal identifiers will be stored in a password protected file on the computer in Sparks 312. All materials containing personal identifiers, as well as audio and video recordings will be destroyed in Spring 2009. In the event of a publication or presentation resulting from the research, no personally identifiable information will be shared, and neither video nor audio recordings will be played.

7. **Right to Ask Questions:** You can ask questions about this research. Contact Viktoria Driagina at (720) 261-5289 with questions. You can also call this number if you have complaints or concerns about this research.

8. **Payment for participation:**

You will be paid $15 for participation in the study.

9. **Voluntary Participation:** Your decision to be in this research is voluntary. You can stop at any time. You do not have to answer any questions you do not want to answer. Refusal to take part in or withdrawing from this study will involve no penalty or loss of benefits you would receive otherwise.

You must be 18 years of age or older to consent to take part in this research study. If you agree to take part in this research study and the information outlined above, please sign your name and indicate the date below.

You will be given a copy of this signed and dated consent form for your records.

_____________________________________________  ________________
Participant Signature  Date

_____________________________________________  ________________
Principle Investigator  Date
Appendix H

Sample descriptions of the high diving scene from “The Swimming Pool”:

**EMC and RMC**

**EMC:** And (1) from there he is intrigued by eh the diving boards and proceeds to walk up them. So he goes to the diving board and he passes the first of the diving board going up to the/ eh the diving board with a larger height. Eh he’s gonna go and try and jump off of it. But then once he gets to the edge he realizes how high it actually is. He gets a little frightened. And he does this whole scene of him clinging to the/to the railing. Then clinging to the floor. Then cr/slowly creeping over staring over to the side of the pool. And he doesn’t wanna do it. And he does all these things to express his anxiety for the actual action of jumping off the diving board. And then he realizes that his time’s cut short when two children/two young boys come up and kind of provoke him to jump because they are waiting in line. So (2) again he starts creeping over to the edge of the pool. He tries and makes an attempt by kneeling down and then he just rolls over onto his back instead of his rolling forward into the pool. Then uh he slowly creeps his legs over and hangs himself from the diving board with his hands. His legs are over the side of the diving board. And he reaches and one hand comes off and then the other hand is he is hanging on there and it doesn’t look like he’s moving until one of the boys previously mentioned runs up and steps on his hand. And then he falls into the water.

**RMC:** н подходит к бассейну, там где играли в волейбол и видит вышку, для прыжков в воду. Ему нравится это занятие больше, и он начинает подходить к вышке и залазит на нее. Там вышка разных размеров. Ему не нравится маленькая, и он лезет все выше. И подходит к краю вышки, и видит, что вода очень далеко, и он очень пугается. Хватается за поручни трамплина. Ему страшно. Он дрожит, пытается по-пластунски отлезть назад (2) на вышку поднимаются дети, и - так с ухмылкой смотрят на него, смеются над ним. Он чтобы - не попадать в просак пытается подойти к краю, опять пугается. Потом все-таки он собрал силу воли, и сел на край чтобы нырнуть. Сложил руки, как для нырка - ну- закрыл глаза, и упал назад.(2) Открывает глаза, он лежит все на том-же трамплине. Ему казалось, наверное, что этот злополучный день/день для него не кончится. Он подходит к трамплину, и пытается слезть - задом- с трамплина. Висит на одной руке. Мальчишки мальчишкам надоело ждать представления, они подходят к краю трамплина, и наступают ему на руку. Мистер Бин - падает в воду.
Appendix I

Sample narratives of more experienced learners

The Swimming Pool: aаа мистер Бин подъехал сначала аа к/ну как потом оказалось к бассейну но мы конечно сначала не знали что это бассейн значит просто там площадка/к площадке или к гаражу где хотел остановить машину и с самого начала мы пони/мы поняли что это смешной/что это будет смешной фильм потому что он не рукой там из автомата высунул аа чек а именно не знаю даже чем там была такая штука просто с которой он работал смешная. А потом когда он уже оказался в бассейне он очень хотел играть с детьми он очень хотел играть в детском бассейне но нельзя было. Ааа я даже сейчас не помню какой там первый эпизод был/ был какой-то первый а потом уже аа ээ с этими горками /горками в виде слона.. Он в общем хотел спускаться или скатываться там скататься наверное с горки но ему нельзя было и спасатель сразу даже не закричал но я не знаю слово значил свистел наверное свистел на него и просил это не делать и он конечно сразу упал в воду.
Это первый такой смешной эпизод а потом он решил что очень хочет аа прыгнуть с трамплина он по мм поднялся на самый высокий трамплин хотя по-моему там был даже такой значок ну нельзя было такой плакат был что даже нельзя подниматься до этого до такого до такой высоты а потом он просто очень боялся и не мог он там долго там стоял страдал лежал ((смеется)) зарапал нет не царапал ам не знаю что он там делал на самом деле он очень долго там был а потом дети тоже под/поднялись смотрели на него смеялись над ним и он в конце концов аа (3) как он прыгнул? он не хотел смотреть в воду значит он просто спускался руками а в конце концов он только одной рукой там держал себя на трамплине и маленький ребенок просто наступил ему на/на руку и он упал скажем даже не прыгнул потому что он сам/сам кажется не очень хотел и когда он оказался в воде он понял что трусиков потерял ((смеется)) вот труски плавали в другом месте. Потом он хотел достать трусиков маленькая девушка/девочка/маленькая девочка ээ увидела и взяла с собой. Значит он остался без трусиков в бассейне и спасатель попросил всех аа уйти а выйти из бассейна у э наш мистер Бин спрятался под водой и в конце концов он все-таки тоже вышел но потом в раздевалке он встретил целую команду молодых женщин там и они закричали. Он убежал и все.

The Parking Lot: Аа последняя часть я так поняла продолжение второго. Этот сидит в машине и хочет уже из гаража выезжать аа талончик положил в машину который считает сколько он должен деньги а денег аа оставить за парковку и показывает шестнадцать фунтов я так поняла догадалась что это в Британии. Он смотрит с удив/с удивлением и я не поняла то ли нету у него вообще денег то ли ему просто жалко столько тратить ну короче он не хочет столько платить. Ини видит что из другого выхода выходит другая машина. Он старается под шлагбаум пока шлагбаум еще открыт как-бы подскользнуть/аа подскользать ну короче выйте вместе с этой машиной бее/ чтобы сам не/не оплатить. Конечно не успевает шлагбаум закрывается до того как он туда аа доехал и ой я все путаюсь со временем глагола ну не важно короче он не успел и ждет пока не подъезжает
еще одна машина ждет ждет ждет конечно машин нет и потом он а! потом выходит из машины и мерит его как-бы высоты ее да ее машина. Вот показывает на себя что вот машина стоит вот так. Подходит к шлагбауму и понятно что машина чуть выше шлагбаума ни так что просто под шлагбаумом нельзя было ехать надо что-то еще придумать. Ааа ходит в сторону улицу и старается там прыгать на/на это устройство которое чувствует что машина подошла надо ну видимо достаточно сильно чтобы какой-то аа тяжелый предмет там подъехал и автоматически дается эти талончики он там прыгает как сс/дурак чтобы ну ну веселый я понимаю ((смеется))но все-таки как дурак чтобы ему давали еще один талон чтобы открылся и он бы успел. Конечно когда он сам просто там прыгнул/прыгал ничего не получилось. Уходит в сторону и возвращается с этим мусорным ведром огромным аа и на на колесах я так поняла хотя я не очень внимательно смотрела и ставит этот/это ведро в том же месте где/где машина бы подошла и дается талон. Он я это не поняла видимо он не допустил еще взять талон но не так быстро и сразу прибежал к машину которую он парковал достаточно недалеко. Ааа включает машину старается увидеть пока шлагбаум еще открытая и конечно не успевает. Ааа что дальше? аа дальше по-моему то ли приходит другая машина не помню. Он да да! ой! он успел да когда когда ведро там стояло? успел да да успел и и как только хотел полностью уехать другая машина про/пр/подъезжала и из-за того что это был конечно вход а не выход он должен был обратно назад ехать чтобы пускать эту машину. Вот и он тогда что ли я уже пугаюсь аа до самого конца гараж аа я не знаю или доехал или ну стоит там уже в самом конце гаража и ждет как не знаю какой-то гонщик аа пока еще не подъезжает еще машина аа в конце концов машина подъезжает достаточно маленькая машина. Водитель взял талон и этот сразу опять как гонщик аа подъезжает к входу. Вот и успевает под шлагбаумом толкает эту машину и уезжает показывают машина уже стоит на бок стоит или на боку устала

The frog story: У мальчика есть лягушка и собака. Лягушка живет в банке. Они каждый/ну как каждый вечер смотрят на лягушку в восхищении, очень любят эту лягушку. Но увы вечером лягушка вылезла из банки и ушла. Мальчик и собака просьпятся и видят что собака ппп лягушки нет. Мальчик смотрит в ботинок, в ботинке нет лягушки. Собака впихивает голову в банку и не может это самое оторваться от банки, застряла короче. Мальчик и собака зовут лягушки из окна, собака падает на землю, банка разбивается, мальчик очень сердит но собака обезьяна/обезьяна / обезьяна и обезьяна его лицо. Ам вот они уходят в лес, зовут лягушку, аа мальчик смотрит в дыру и оттуда высказывает не хомяк а как это сурок. А собака прислоняется к дерева. Там улей/ улей. Улей падает на землю. Значит пчелы вылетают, мальчик поднимается на дерево, мальчик падает, видит там сова которая не любит гостей. Мне так кажется потому что он так как бы вылетает из дома так с открытыми крыльями и пугает мальчика, мальчик падает. Причем преследует мальчика почему-то. Мальчик поднимается на камень и зовет, кричит. И там что-то олень да, он падает, олень его хватает головой. Ам потом олень как-то убегает оттуда и собака слее/ следует за ними. Олень вызрывает их в болото, они падают в болото. Ну слава Богу или уровень воды очень мелкий или они умеют плавать. Первое скорее всего правда потому что гм-м поднимается на голову мм мальчика.
А теперь мальчик / здесь мальчик что-то услышал и говорил собаке тссс! Потом они смотрят на что там на другой стороне бревна. Они залезли на него или перелезли? да перелезли. И нашли лягушек. Там мама и папа лягушки или вот это сама лягушка там уже с семьей. По-моему у нее уже была семья, ну кто ее знает. Семья-то есть уже. Они новую лягушку мне кажется забирают и прощаются.
Bibliography


EDUCATION

**PhD in Applied Linguistics**, Conferred August 2007
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