A Visual Approach to Introducing the Structure of Russian

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Abstract

This paper discusses the role and efficacy of visual aids (image schemas, symbolic units, diagrams, etc.) in the beginner Russian-language classroom. Cognitive Grammar (CG) Theory, numerous Second Language Acquisition (SLA) theories, and recent empirical research support the employment of such explanatory tools in the classroom. It is argued that the periodic use of certain visual aids during classroom instruction encourages learners to attend consciously to the overall lexical, morphological, and syntactical structures of Russian. This paper in no way discourages the Communicative Approach to foreign language teaching. Rather, it encourages the occasional direct teaching of certain grammatical concepts and structures through activities focused on system learning, as opposed to item learning. SLA researchers subscribing to cognitivist theories acknowledge the importance of input from outside stimuli as well as internal language processing. The present discussion focuses on how to develop learners’ internal language processing through the use of a visual approach to introducing the prefixes for the verbs of motion, the case system, and verbal aspect to beginner learners of Russian. Recent research by Arnett and Lysinger (2013) using a Cognitive Grammar (CG) approach to teaching the Russian case system demonstrates that visual aids promote learners’ ability to recognize and use cases more often and accurately. It is ultimately argued that certain visual aids, employed in the classroom as consciousness-raising activities about the structure of Russian, contribute both directly and indirectly to the development of implicit knowledge by the learner.
Cognitive Grammar (CG) Theory

Langacker’s Cognitive Grammar (CG) Theory asserts that grammar is meaningful and symbolic in nature (3, 5). Langacker maintains that grammar has meaning that “reflects our basic experiences of moving, perceiving, and acting on the world” (4). CG Theory therefore rejects any claim that language is a distinct, self-contained entity, arguing instead that language is an “integral facet of cognition” (8). CG Theory enthusiastically rejects the notion that lexicon and syntax exist independently of one another, claiming instead that that “lexicon, morphology, and syntax form a gradation that is fully explainable by means of symbolic units” (Arnett and Lysinger 135). Langacker defines a symbol as a pairing between a semantic structure and a phonological structure (5).

CG scholars frequently use visual aids (image schemas, symbolic units, diagrams, etc.) to describe lexical items and syntactic structures alike. This paper will discuss both uses in the Russian systems of verbal prefixes and case respectively. CG symbols ultimately serve a heuristic function as they seek to describe something “far more complex than grammar and far more difficult to describe” – meaning (Langacker 11). This paper will discuss the role and efficacy of visual aids in the beginner Russian-language classroom with a focus on the prefixes for the verbs of motion, the case system, and verbal aspect.

Russian Prefixes for the Verbs of Motion

The prefixes for the verbs of motion are not traditionally introduced in first-year Russian textbooks as a system of prefixes. Rather, as is the case with Beginner’s Russian, prefixes are introduced individually as new vocabulary with no specific attention paid to the meaning of the prefix itself. Russian instructors and textbooks traditionally present the system of prefixes to intermediate or advanced students. This paper asserts that the entire system should be introduced to first-year students for two primary reasons. First, a basic understanding of the system of prefixes reduces student cognitive load through a simple reduction in the total number of lexical items to be memorized. Second, a better understanding of the prefixes for the verbs of motion allows for a better understanding of verbal prefixes in general (Janda et al. 32).

As mentioned previously, Langacker defines a symbol as a pairing between a semantic structure and a phonological structure (5). Figure 1 below provides common symbols used by instructors when teaching the system of prefixes for the verbs of motion. The symbols below are based on Mahota’s work in his handbook Russian Motion Verbs for Intermediate Students (62-64).
The symbol for each prefix pairs a semantic structure to the phonological realization of the prefix. Using Langacker’s method for formulaic representations, a slash is used to indicate the symbolic relationship between a morpheme’s semantic pole and phonological pole (15). The prefixes при- and у- can thus be represented below in (1)(a) and (1)(b) respectively.

(1) (a) \([\text{ARRIVE}]/[\text{при-}]\)  

(b) \([\text{MOVE AWAY}]/[\text{у-}]\)

In (1)(a), \([\text{ARRIVE}]\) stands for the complex conceptualization compromising the prefix’s semantic pole, while the phonological pole is rendered orthographically in lowercase Cyrillic (Langacker 15). In other words, \([\text{ARRIVE}]\) stands for the prefix’s meaning, while \([\text{при-}]\) represents its phonological realization. The symbols in Figure 1 above pair these two poles together. The symbol for при- above, even if unlabeled, should therefore summon in the learner both the meaning of the prefix as well as its sound.

A basic understanding of the system of prefixes for the verbs of motion can be achieved by introducing this system using a visual approach. Achieving this basic understanding can reduce student cognitive load by decreasing the total number of lexical items to be memorized. For example, rather than memorizing a list of prefixed verbs of motion, students only memorize new verbs that allow their existing lexicon of prefixes to attach. Rather than memorizing a list (прибежать, убежать, подбежать, вбежать), students need only learn the morpheme \([\text{RUN}]/[\text{бег}]\), which is then placed into their preexisting lexicon that includes the morphemes for prefixes and verb suffixes. Instructors need only explain the common prefixes that can attach to the new verb бежать.

A better understanding of the prefixes for the verbs of motion also allows for a better understanding of verbal prefixes in general. In their book Why Russian Aspectual
Prefixes Aren't Empty, Janda and a team of cognitive linguists conduct a semantic analysis of perfectivizing verbal prefixes using a radial category model. Radial categories are defined by relationships to a prototype. Figure 2 represents a simplified version of the radial category for the prefix **y-** (Janda et al. 31).

**FIGURE 2**

**MOVE AWAY** [shown in the bolded box above], represents the prototype meaning for the Russian verbal prefix **y-**. This prototype meaning was not selected randomly. It was revealed through a thorough semantic analysis of dozens of specialized perfective verbs with the **y-** prefix. Specialized Perfectives are those verbs “where the lexical meaning of the verb is different from that of the corresponding simplex verb” (i.e. переписать ‘rewrite,’ подписать ‘sign,’ formed from the simplex verb писать ‘to write’)(Janda et al. 4). While the exact methodology and final conclusions of this research do not fall within the scope of this paper, the authors’ findings on the meanings of the verbs of motion prefixes are revealing. They assert that the meaning of the prefixes for the Russian verbs of motion “dominate the Specialize Perfectives in the prototypical meaning” (Janda et al. 32). Since the meanings of the verbs of motion correspond to the prototypical meanings of verbal prefixes, it logically follows that a learner’s firm grasp of the former will contribute to a better understanding of the latter. Consider the two examples provided in Figure 3 below:

**FIGURE 3**
The prototype schema [ARRIVE], shown by the symbol labeled [при-], represents a higher level of abstraction resulting from a process of extracting the commonality inherent in the verbs прибежать ‘arrive running’ and присниться ‘appear in a dream.’ Langacker calls this process schematization (17). Hence, the collection of symbols represented Figure 1 serve as the prototype schemas for all verbal prefixes, representing the semantic center of gravity for each.

The Russian Case System

The following section supports the theoretical claim for the general meanings of the Russian cases and analyzes the work of Janda and Clancy (2002) on pedagogical value of these general meanings. The question of the general meanings of Russian cases has been a controversial subject of debate among linguists for centuries. Jakobson, however, provides a definitive counterpoint to arguments claiming that cases perform a purely syntactic function for a group of unrelated meanings and functions:

[If] the individual meanings of a case really “had nothing in common,” that case would inevitable disintegrate into several disconnected homonymous forms. (60)

Many cognitive linguists assert that cases carry a general meaning from which several related individual meanings and functions can be derived. These general meanings are often represented by image schemas (visual aids). For example, Jakobson offers the following schema as a conclusion for his "Contribution to the General Theory of Case: General Meanings of the Russian Cases" (96):

![Figure 4](image)

FIGURE 4

While Jakobson’s contribution to Russian case theory is both enlightening and revolutionary, it remains inaccessible to beginner students of Russian.

Janda and Clancy (2002) offer a more accessible visual approach to understanding the general meanings of the Russian cases. In their textbook on Russian case, they introduce each case with a diagram and a network of submeanings representing the basic meaning of the case. Since a full examination of Janda and Clancy’s textbook is beyond the scope of the present discussion, this paper will only analyze how they present three of the six cases: nominative, accusative, and dative.

The textbook recognizes two submeanings within the nominative network: A NAME and AN IDENTITY. NOMINITIVE: A NAME includes the function of naming the subject of a sentence.
Teachers expose first-year students of Russian to this function when teaching students their first verb, which must be conjugated according to the subject of the sentence.

(2) Я учусь в университете.
I-NOM study at the university-LOC.

The personal pronoun Я ‘I’ in (2) is represented by the circle labeled N in figure 5. Instructors also introduce the second submeaning, NOMINITIVE: AN IDENTITY, often within the first few days of class.

(3) Я студент.
I-NOM am a student-NOM.

The personal pronoun Я ‘I’ and noun студент ‘student’ in (3) are both represented by circles labeled N in figure 6 above. A line symbolizing the verb ‘to be’ associates them. The verb быть ‘to be’ almost always has a zero form in the present tense in Russian.

The accusative case network includes three submeanings: A DESTINATION, A DIMENSION, and AN ENDPOINT (Janda and Clancy 53). First-year students of Russian are exposed to most of the functions within the ACCUSATIVE: A DESTINATION submeaning, described by Janda and Clancy below:

ACCUSATIVE: A DESTINATION operates in four domains: space, time, action, and purpose. In the spatial domain ACCUSATIVE: A DESTINATION is a destination of physical motion; in terms of time it is a temporal destination; a time
when something happens; in the domain of action it is the destination of a verbal activity – what we usually call the direct object… (54)

ACCUSATIVE: A DESTINATION

The arrow in figure 7 represents a force created by the verb. Consider the following Russian sentences highlighting the ACCUSATIVE: A DESTINATION submeaning operating in three of the four domains:

(a) Он редко ходит в библиотеку.
   He-NOM rarely goes to the library-ACC. [domain of space]

(b) В пятницу он встретился с деканом.
   On Friday-ACC he met with the Dean-INST. [domain of time]

(c) Иван читает книгу.
   Ivan-NOM is reading the book-ACC. [domain of action]

Figure 8 symbolizes (4)(c) above:

The submeanings and functions of the accusative case have the general meaning of “directed activity” and “motion,” which is better understood by the image schema in figures 7 and 8 above than a list of seemingly unrelated rules for the use of the case. Janda and Clancy's treatment of the dative case includes three basic submeanings: A RECEIVER, AN EXPERIENCER, and A COMPETITOR. The indirect object is discussed within DATIVE: A RECEIVER. This submeaning “involves the transfer of an object from one thing or person to another” (84). Janda and Clancy add that the dative item is one that can react, exert forces of its own, or act as the subject for further action. In other words, the dative item is typically animate.
In figure 9 above, a force (large arrow) brings an item (small circle) to **DATIVE: A RECEIVER** (circle labeled D), which has the potential to exert force (dotted arrow) (Janda and Clancy 84).

Each case’s image schema requires some modification when generating a diagram for complex sentences involving several cases. For example, the image schema for the accusative case requires slight modification in sentences containing an indirect object as in (5) below.

(5) Антон даёт брату мяч.
Anton-NOM gives his brother-DAT the ball-ACC.

Arnett and Lysinger (2013) provide an alternate approach for visualizing Russian case by focusing on the entire system as opposed to the general meaning of each case in completely independent schema. Their treatment of the accusative case, which they designate as “patient,” is represented in a slightly different fashion than Janda and Clancy’s schemas for each case’s general meaning. Figure 10 combines elements from both treatments to represent (5) above.

Several functions of the dative case covered in first-year Russian courses include the use of the dative for indirect objects without direct objects. Janda and Clancy place these functions within the **DATIVE: A RECEIVER** submeaning as well as the **DATIVE: AN EXPERIENCER** submeaning.
In figure 11 above, a force (large arrow) acts on DATIVE: AN EXPERIENCER (circle labeled D), which has the potential to exert force (dotted arrow) (Janda and Clancy 91). Consider the following sentences common to the first-year Russian classroom highlighting the DATIVE: AN EXPERIENCER submeaning:

(6) (a) Мне нравится этот роман.
    Me-DAT pleases this novel-NOM. “I like this novel.”

(b) Ему 25 лет.
    Him-DAT 25-NOM years-GEN. “He is 25 years old.”

(c) Ей холодно.
    Her-DAT cold. “She is cold.”

Figure 12 symbolizes all three examples above. Figures 12(a) and 12(c) incorporate Arnett and Lysinger’s notion of the imaginary patient (direct object) and imaginary name (subject).
These symbolic representations of Russian cases are more natural than the more traditional linguistic diagrams (tree-like diagrams, etc.). For example, figure 13 below compares the CG-based diagrams above with Pekhlivanova and Lebedeva’s sketches for the accusative and dative cases in their book *Russian Grammar in Illustrations* (48, 58).

![Diagram](image)

**FIGURE 13**

The similarities between these diagrams are unmistakable and support Langacker’s notion that the elements of grammar have meaning that “reflects our basic experience of moving, perceiving, and acting on the world” (4).

**Russian Verbal Aspect**

Image schemas for verbal aspect are found within the theoretical CG literature as well as instructional manuals for students of Russian. Comrie defines aspects as “different ways of viewing the internal temporal constituency of a situation” (3). Jakobson, in his revolutionary work on verbal categories, refers to this “situation” as the narrated event (E”). He explains that aspect quantifies “the narrated event itself without involving its participants and without reference to the speech event” (45). Both descriptions refer to an event or profiled process that occurs within what Cognitive Grammar defines as the immediate temporal scope (IS).

Jakobson qualifies perfective and imperfective, the two main opposing categories of verbal aspect, as marked vs. unmarked respectively. The marked perfective aspect is concerned with the absolute completion of the narrated event, while the unmarked imperfective aspect makes no specific reference to the completion or noncompletion of the narrated event (48). Langacker adds that this aspecual difference can be better understood with the assistance of image schemas as depicted in figure 14 from *Cognitive Grammar* (153).
FIGURE 14

The maximum scope (MS) in both (a) and (b) is time as indicated by the arrow representing time (t). As discussed above, the essential difference between the two major aspects is found within the immediate scope (IS). The thicker line found in both (a) and (b) above "represents a relationship evolving through time" with "each point on the line corresponding to a component state" for a single moment in time (Langacker 152). The profiled relationship in diagram (a), for perfective verbs, is bounded within the immediate temporal scope. Hence the entire manifestation of the profiled process, or narrated event, occurs within the immediate scope, indicating the absolute completion of the narrated event. The thicker line in diagram (b), for imperfective verbs, is not necessarily bounded within the immediate scope. The profiled process extends to the limits of the immediate scope, while ellipses (…) indicate that the relationship can extend indefinitely. The immediate scope only segments out a portion of the ongoing situation, putting "it onstage for focused viewing" (Langacker 152). Diagram (b) therefore makes no specific reference to the completion or noncompletion of the narrated event.

As mentioned above, image schemas for verbal aspect are found in instructional manuals for students of Russian as well. In his book on Russian verbal aspect, Hashimoto introduces an “action box,” which he argues will help learners better understand the difference between the two aspects (130). Hashimoto’s action box, perhaps not surprisingly, resembles Langacker’s immediate scope. The following diagrams are offered by Hashimoto (130-133):

FIGURE 15

Hashimoto explains that the action expressed by the perfective in diagram (a) has a distinct border, which expresses the “wholeness or entirety of an action” (131). He removes the action box altogether in diagram (b) to depict the imperfective. The gray sections of the bar represent the ambiguous beginning and end of the action. Hashimoto, referring to the imperfective diagram in (b), adds “time length and repetition can be infinite and the beginning and end of the actions expressed by the imperfective aspect are inherently unclear” (133). Hashimoto’s simplified image schemas leave out
the maximum scope (MS) box since time is already represented in each diagram by an arrow. The similarities found between Hashimoto’s and Langacker’s image schemas on verbal aspect are undeniable. More astounding, however, is the fact that neither author cites the other’s work. This confirms Langacker’s philosophical principle of naturalness that has guided research in CG. The principle “maintains that language—when properly analyzed—is by and large reasonable and understandable in view of its semiological and interactive functions…” (14).

No discussion of aspect is complete without mentioning its relation to tense. While aspect characterizes the narrated event without reference to the speech event, tense characterizes the narrated event with reference to the speech event (Jakobson 46). The past tense signals that of the two events, the event narrated precedes the speech event, while the present tense implies no sequence (48). Langacker supports Jacobson’s descriptions of aspect and tense. He adds that “tense imposes an immediate temporal scope, positioned with respect to the speech event, within which the profiled process must be manifested” (157). Figure 16 below illustrates the relationship between the narrated event and the speech event (Langacker 157):

![FIGURE 16](image)

The speech event is shown using a box with squiggly lines. The immediate scope is shown prior to the speech event in the past tense, while in the present tense the immediate scope indicates that the narrated event exactly coincides with the speech event.

Langacker and Hashimoto’s diagrams are both heuristically effective for first-year students of Russian. This paper suggests, however, the direct teaching these grammatical structures through activities focused on system learning, as opposed to item learning. Therefore, the following schema is posited for use as a pedagogical tool when introducing Russian aspect:
As with the schemas for Russian case, the schemas presented in Figure 17 above have been simplified to serve their heuristic function in the classroom, rather than the more descriptive diagrams found in the CG literature. Figure 17 introduces Russian verbal aspect with supporting schemas and the verb читать 'to read,' which is commonly used in the first-year Russian classroom. Perhaps most noticeable is the absence of the perfective present which does not occur in Russian.

Assumptions from Second Language Acquisition (SLA) Theories

The recommendations made at the conclusion of this paper require several assumptions about the nature of language learning and language pedagogy. The four assumptions below are a source of much debate among SLA researchers.

1) Internal Language Processing. This paper assumes that the periodic use of certain visual aids during classroom instruction encourages learners to attend consciously to the overall lexical, morphological, and syntactical structures of Russian. In other words, instructor input (outside stimuli) can affect a student’s internal language processing through the occasional direct teaching of certain grammatical concepts and structures.

2) Universal Grammar (UG). Universal Grammar (UG) posits that “language is governed by a set of highly abstract principles that provide parameters which are given particular settings in different languages” (Ellis 65). Simply by stating assumption number 1 above, this paper assumes that learners have access to their UG, and that instructors can help reset a learner’s parameters for Russian acquisition.

3) Adults Acquire Language Differently. Learners do not construct new grammatical rules in a vacuum; rather they work with whatever information is at their disposal. This includes knowledge of their L1. Therefore, transfer of L1 structure to L2 is not merely interference, but part of a cognitive process for developing a learner’s L2 interlanguage (Ellis 52). Interlanguage is defined as a unique linguistic system that draws on the learner’s L1 but is also different from the target language system of a native speaker.
Over time, the learner constructs a system of abstract linguistic rules often referred to as ‘mental grammar’ or ‘interlanguage’ (Ellis 33). Teachers, therefore, can influence the development of the learner’s interlanguage. This paper assumes an adolescent or adult learner’s L1 can be used to facilitate L2 acquisition (Ellis 51). Instructors can support this positive transfer with image schema that illustrate abstract ideas common in both languages. For example, instructors could easily promote the positive transfer of the English objective case for the Russian accusative case with pronouns serving as the direct object of a sentence (c.f. I love her → Я люблю её).

4) Learned L2 Knowledge. The very nature of this paper demands a categorical rejection of Krashen’s claim that acquired L2 knowledge (implicit knowledge of the language) and learned L2 knowledge (explicit knowledge about the language) are entirely independent of one another, and that learned knowledge can never be converted into acquired knowledge (Ellis 55). Rather, this paper assumes that explicit knowledge may facilitate the process by which learners attend to features in the input. For example, a learner who knows about the accusative case is better equipped to notice it. Explicit knowledge can contribute to the development of implicit knowledge by helping learners to process language input.

Recent Empirical Research

Arnett and Lysinger’s 2013 study "A Cognitive Grammar Approach to Teaching the Russian Case System" provides empirical evidence to support a visual approach to introducing the structure of Russian. The authors shed light on the fact that the most commonly used textbooks for introductory Russian courses lack any visual overview of the case system that explains the function of grammatical cases in sentences. As a result, many students do not see the Russian cases as connected with each other in any way (143).

The test group in Arnett and Lysinger’s study was exposed to 10-15 minute CG-based activities when each new case was introduced in the textbook for the class (a total of 60-90 minutes of class time) over the course of two semesters of first-year Russian. The control group was not exposed to any CG-based activities. The following is a summary of the results of the study:

- Meta-knowledge test scores - CG group 83%, traditional 61%
- Fill-in-the-blank test scores - CG group 70%, traditional 36%
- Free writing test scores - CG group 63%, traditional 34%

Data from Arnett and Lysinger’s study suggest that the CG-based explanation of cases in class proved to be a more effective method for teaching Russian cases (157). The authors inferred from the results listed above that CG-based instruction of the Russian case system has a positive effect on learners’ acquisition of both theoretical and the practical knowledge (152). Of note, significant differences in performance were most striking with the correct use of the dative, the instrumental, and the genitive cases (155).
Additionally, the control (traditional) group attempted to evade the instrumental case altogether on the free-writing section of the post-test (154). The controls in Arnett and Lysinger’s study, however, were not ideal. The researchers used two separate instructors from two separate institutions. Classes at the second university were chosen as the control site since they used the same textbook and had roughly the same student class size and demographics. This study must be repeated in a more controlled environment to prevent any other variables from potentially influencing the results.

**Conclusion and Recommendations for the Classroom**

By introducing the structure of Russian visually, instructors enable learners to frame the complex grammatical structures of Russian with the aim of reaching automatization more naturally. A structure reaches automatization after undergoing progressive entrenchment that leads to that structure becoming a unit (Langacker 16). Schema acquisition and automation have the effect of substantially reducing cognitive load (Sweller 299). The occasional direct teaching of certain grammatical concepts and structures through visual activities should prioritize system learning over item learning. Sweller explains:

> Schemas effectively increase the amount of information that can be held in working memory by chunking individual elements into a single element. A single tree, not thousands of leaves and branches needs to be remembered… (299)

To relate this to Russian grammar, the single general meaning of a case or prefix, not dozens of specific rules, needs to be understood first.

The diagrams offered in Appendix A for the verbal prefixes, the case system, and verbal aspect are the result of a “process of extracting the commonality inherent in multiple experiences to arrive at a conception representing a higher level of abstraction” (Langacker 17). In other words, they embody the general meanings, or prototypical meanings, of the systems they represent. This paper maintains that the image schemas offered for pedagogical purposes in Appendix A are firmly supported by CG Theory, while their efficacy is supported by recent empirical research. Ultimately, these diagrams “can be seen as a shortcut to comprehension of the most problematic grammatical issues” in Russian (Arnett and Lysinger 144).

The first-year Russian language program at the United States Military Academy is conducted over two semesters totaling 160 55-minute lessons. This paper recommends augmenting the current communicative approach to pedagogy with a visual approach to the structure of Russian using the following design:

**Verbal prefixes.** Two 15-minute lessons with two 20-minute homework assignments over the course of two semesters. The 15-minute lessons adhere to the following format:
- 5-minute discussion on the system of verbal prefixes using the image schemas from Appendix A
- 5-minute activity focusing on the identification of prefixes and their general meanings
- 5-minute activity focusing on the construction of sentences, emphasizing a few verbal prefixes relevant to the current unit/chapter

**Case.** Six 15-minute lessons with six 10-minute homework assignments over the course of two semesters. The lesson precedes the introduction of each new case. The 15-minute lessons adhere to the following format:

- 5-minute discussion on the case system using the image schemas from Appendix A
- 5-minute activity focusing on the identification of cases and their general meanings
- 5-minute activity focusing on the construction of sentences, emphasizing the case to be discussed next as well as all previously covered cases

**Aspect.** Two 15-minute lessons with two 20-minute homework assignments over the course of two semesters. The 15-minute lessons adhere to the following format:

- 5-minute discussion on verbal aspect using the image schemas from Appendix A
- 5-minute activity focusing on the identification of verbal aspect and its general meaning
- 5-minute activity focusing on the construction of sentences, emphasizing verb aspect pairs relevant to the current unit/chapter

The total classroom instruction time for the visual approach to the structure of Russian is around 2.5 hours out of 160 55-minute lessons.
Appendix A

The Russian Prefixes for the Verbs of Motion (Mahota 62-64)

The Russian Case System (Arnett and Lysinger 166)

Russian Verbal Aspect (Langacker 153)


