2013

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Recommended Citation
DOI: https://doi.org/10.70163/0036-0252.1143
Available at: https://scholarsarchive.byu.edu/rlj/vol63/iss1/9

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A Cognitive Grammar Approach to Teaching the Russian Case System

Carlee Arnett
Diana Lysinger

This study examines modern Russian cases within a Cognitive Grammar framework. Grammatical case, as one of the fundamental language categories, has always interested linguistic researchers. In languages that possess case systems, virtually no utterance is possible without taking into account grammatical case. This grammatical category is very complex and its acquisition is an enormously arduous task for learners whose native language does not possess a case system or a case system that is not as pronounced as it is in the target language. According to Janda (2002), “the meanings of grammatical cases are probably the biggest obstacle faced by students trying to learn Russian.” Cognitive Grammar (CG) (Langacker 1987, 1991; Lakoff 1990) offers a particularly effective and practical approach to language that relates grammar to mental processes and structures in human cognition. It claims that lexicon, morphology, and syntax form a gradation that is fully explainable by means of symbolic units, and that language grammar preexists in human’s conceptual apparatus in form of these units.

There are a number of theoretical works written on case systems in languages based on the CG theory, but no research has been done on whether such explanations are beneficial for learners of a second language. Moreover, although the category of case has always drawn the attention of researchers, most current textbooks, with the exception of Janda (2002), still offer the L2 learners descriptions based on traditional grammar (cf. Smirnitsky 1955; Kuzpetsov 1961/2003; Zemskaja 1973). In this paper, I intend to provide support for the practicality of a CG-based, semantic characterization of the Russian case system.

The following section describes the theoretical analysis of the Russian case system within CG and is based on the work of Langacker for English (1987) and Janda for Russian (2002). As in many languages, the case of a noun or pronoun in Russian signifies its function in the sentence; that is, whether it is acting as the subject or an object, or
whether it is acting in some other capacity. There are six cases in Russian: Nominative, Accusative, Dative, Instrumental, Genitive, and Prepositional, each case signifies a specific range of functions. The nominative case denotes the subject of the sentence, the accusative case—its direct object. The patient is any result of the actions produced by the name, or just its focus of attention, as is, for example, with sense verbs to see, to hear, to listen, to feel, etc. Name’s action can thus be of non-physical character, but simply demonstrate that the patient is the next important participant after the name, because of some sort of direct relation between them, as for example in examples 1 and 2.

(1) Я жду тебя. ‘I am waiting for you, lit. I wait you’
(2) Она знает его. ‘She knows him’

Moreover, the accusative case is used with time expressions in Russian, when they indicate: 1) the duration of the activity or state indicated by the verb (Я работал всю ночь ‘I worked a whole night’); 2) the frequency of repeated actions with an adjective such as каждый ‘every’ in a temporal noun phrase (Я работал каждую ночь ‘I work every night’).

The dative case is used to signal the indirect object, such as the receiver of something. Presence of a receiver in a clause typically assumes at least two more participants, the name and the patient, but many constructions are possible with only an imaginary patient. In Russian the object of the name’s thanks, congratulations, and forgiveness is expressed by the accusative case, other dative verbs such as ‘to believe’, ‘to trust’, ‘to help’, ‘to say’, ‘to advise’ are used with the receiver, and the patient is only imaginary. Examples 3 and 4 as well as diagram in Figure 1 demonstrate such uses of the dative case.

(3) Я тебе помогу. ‘I will help you’
(4) Он тебе верит. ‘He believes you’

The dative case is also widely used with auxiliaries нужно/надо ‘it is recommended/required’, можно/нельзя ‘it is allowed/not allowed’, and in impersonal constructions which are used to express a temporary state, for example the English expression ‘She is cold’ is translated as an impersonal construction in Russian and ‘she’ is used in the dative case: Ей холодно.

The dative is generally used when the subject is the goal of the action, so Она холодная (‘she’ in the nominative case) would imply that ‘she’ is the source, not the recipient of the coldness. There are also other verbs in Russian which require the use of the dative case: звонить ‘to ring’, отвечать ‘to answer’, сказать ‘to tell’, служить ‘to serve’, угрожать ‘to
threaten’, не хватать ‘to lack, to fall short’, подражать ‘to imitate’, нравиться ‘to be pleasing to’, принадлежать ‘to belong to’, удаваться ‘to succeed’, казаться ‘to seem’, верить ‘to believe’, помогать ‘to help’, подходить ‘to suit’, хватать ‘to be enough’, навредить ‘to damage’, доверять ‘to trust, to rely on’, противоречить ‘to contradict’, советовать ‘to advise’, рекомендовать ‘to recommend.’ Furthermore, Russians use dative case when talking about their age: Мне двадцать лет ‘I am twenty years old.’

Figure 1: An action involving a name, a receiver, and an imaginary patient.

The Russian language also has a particularly rich assortment of impersonal constructions requiring no other participants except for the dative receiver (Divjak and Janda 2008). Sentences 5 through 8 demonstrate some of such constructions, each of which presents a finished and clear idea:

(5) Мне холодно ‘I am cold, lit. [To] me cold’
(6) Мне плохо ‘I feel bad, lit. [To] me bad’
(7) Мне непонятно ‘I do not understand, lit. [To] me unclear’
(8) Мне жаль ‘I am sorry, lit. [To] me pity’

Such constructions use the receiver instead of the name, although using a nominative participant and paraphrasing slightly to express the same or similar idea is possible, to signal that something of which the participant is not in charge is happening to him, and he is only a passive receiver of whatever an unknown name (life, destiny?) offers him. In such instances, both the name and the patient are left out, and can be depicted only as imaginary objects, as in Figure 2.
The genitive case is the case that marks a noun as modifying another noun. It functions: 1) to indicate one noun being the possessor of another noun; 2) to express negation, even when no possessives are involved—его ‘he’ (GEN), for example, in Его здесь нет ‘He is not here’; 3) to express partial direct object (part of the whole) to indicate that the action covers only a part of the direct object, whereas similar constructions using the accusative case denote full coverage; 4) following the verbs that express an intention to reach or achieve certain goal, such as ждать ‘to wait for’, ожидать ‘to expect’, искать ‘to look for’, достигать ‘to achieve’, желать ‘to wish for’, хотеть ‘to want’, просить ‘to ask for’, требовать ‘to demand’ and some others, the choice of case (Genitive or Accusative) mainly depends on the (un)certainty of the aspired or desired object. The more certain or concrete the desired object, the more the likelihood of using the accusative case. Therefore, one can ask someone for any sum of money, generally, or one can ask for a certain sum of money, and in Russian, these two expressions will be expressed by using the word money in the accusative or the genitive case accordingly: просить денег (Gen.) and просить деньги (Acc.). Whereas the first expression implies the will to get any sum of money or just some money in general, the second expression would be used when one is asking, for example, to return the sum loaned, or the sum previously discussed.

Examples are given in 9, 10 and 11, where the referee is used in conjunction with the name, the patient, and the receiver.

(9) Это дети моей сестры. ‘These are my sister’s children.’
(10) Он помнит холод зимы. ‘He remembers the cold of winter.’
(11) Я доверяю друзьям родителей. ‘I rely on my parents’ friends.’
Graphic illustrations of the above examples are provided correspondingly by Figures 3, 4 and 5.

Figure 3: Referee of a name.

Figure 4: Referee of a patient.

Figure 5: Referee of a receiver.

The instrumental case is used to express the means by which something is done. For example, the word *pencil* in ‘I wrote the letter with a pencil’
requires the use of the instrumental case in Russian. When used with a preposition с ‘with’ the instrumental case signals a companion rather than an instrument. So, ‘to wave with a hand’ requires the noun hand in the instrumental case, but ‘to laugh with a friend’ requires the preposition с before the noun friend and the instrumental case ending on it. Furthermore, the instrumental case is used to denote a time in which an action occurs. For example, in the sentence Я работаю днём ‘I work during the day’, the word день ‘day’ in its instrumental case denotes the time in which the action takes place. The instrumental case also denotes a role or a change of the role, i.e., status, profession, theatre role: Я работаю учителем ‘I work as a teacher.’ The use of the instrumental case is required after the verbs: быть ‘to be’, гордиться ‘to be proud of’, становиться ‘to become’, обладать ‘to possess’, оказаться ‘to turn out to be’, пользоваться ‘to use’, заниматься ‘to be engaged in’, интересоваться ‘to be interested in’, увлекаться ‘to be keen on’, хвастаться ‘to boast.’

One function of the instrumental case is shown in the example ‘Kathy baked the cake with her own hands.’ Hand (in Russian, “own hands” – Pl, Instr.) in this case is seen as the instrument that Kathy used in order to prepare the cake, and, as was mentioned earlier, the label instrument seems to be the easiest to remember for students, be that instrument a real instrument, a body part or a companion (in which case a preposition with is required). The role archetype of an instrument, according to (Langacker 1991), is a passive participant in the source domain (not in the recipient domain), which means that it must stand close to the name and help the name perform an action through or by means of it.

One can define as instruments all clause participants, by means of which the name performs an action. Presence of an instrument is thus not possible in sentences where there is no action taking place, but sentences like ‘I write by hand’, ‘I hear with the ears’, ‘I see with the eyes’, etc. in Russian require only two participants: the name and the instrument, and a verb, without recourse to prepositions: Я пишу ручкой, Я слышу ушами, Я вижу глазами. Such situations can be depicted by figure 6.

The prepositional case is close to the genitive case, as it is not an active participant and it also serves as a reference point. However, while the genitive case expresses characteristics of one individually taken participant of an action, the prepositional case describes a place or a time period (moment) where (when) something is or happens. I labeled it place, and, since place is not directly involved in an action, its shape should not be a circle, but a rectangle. In the sentence ‘In the house,
Kathy gave Lisa’s sister a cake, the place is the house, where the action of giving took place.

Figure 6: The instrumental case without a patient.

For more advanced students or heritage speakers, a sentence containing all six cases can be used to demonstrate the roles that every case performs. Sentences (12) and (13) could be used for these purposes.

(12) Учитель пальцем указал ученику решение задачи в книге. ‘The teacher with a finger pointed to the student the solution to the exercise in the book.’

(13) На уроке студентка карандашом написала письмо подруге детства. ‘In class, the student wrote a letter to her childhood friend with a pencil.’
Although the sentences use a lot of words, the main idea of each sentence can be expressed by three most important words: Учитель указал решение. ‘The teacher pointed out the solution’ in (12), and Студентка написала письмо. ‘The student wrote a letter’ in (13). Further on, other participants of the sentences should be added one by one according to their significance in the sentence, and every step should be depicted graphically. CG descriptions and diagrams of the Russian cases that were provided to the students can be found in detail in Appendix B.

Despite all the research that has been done previously and recently on Russian case (cf. Babby 1980, 1986; Pestsky 1982; Stjepanovic 1996; Neidle 1988; Bondarko 1991), most Russian textbooks use the traditional method of explaining case. The most commonly used textbooks for first year are Golosa: A Basic Course in Russian, Russian Stage One: Live from Russia, Nachalo, and Troika: A Communicative Approach to Russian Language, Life, and Culture. The textbook Golosa comes in two volumes each consisting of ten units. Live from Russia is divided into two six-unit parts. Each part contains six chapters and each unit is designed for approximately two weeks of instruction. Nachalo is two books each with seven units. Live from Russia is the new and revised version of Live from Moscow. Nachalo is available in a two-volume format to be used during the first two years of language learning. Troika: A Communicative Approach to Russian Language, Life, and Culture consists of eighteen chapters and comes in one volume.

All of the textbooks have a similar format of when and how to introduce case. They start with the nominative case, then the prepositional, the accusative, the genitive, the dative, and finally the instrumental. In Golosa and Live from Russia, the first four cases are introduced in the first volume or the first half of the textbook, in chapters 1 through 6. Nachalo begins with the nominative case in chapters 1 and 2. The accusative case is covered in chapters 3 and 12. Troika does not start the discussion of the case system until chapter 4 (out of 18) and introduces the nominative along with the prepositional case. It explains the accusative in chapters 7 and 8, and the genitive in chapters 10, 11, and 15. However, in chapter 1 of Troika students learn about “object forms” of personal pronouns, and in chapter 2 about “subject forms” of personal pronouns. Therefore, when students start chapter four, they know the basic forms of nouns and adjectives, which is very similar to other textbooks’ format, with the only difference that other textbooks state explicitly already in chapter 1 that the basic form of a noun or pronoun is the nominative case. The dative case is
introduced in chapter 6 of *Live from Russia*, in chapter 13 of *Troika*, in chapters 7 and 8 of *Golosa* and in chapters 6, 8, 9, and 13 of *Nachalo*. The instrumental case typically follows the dative case and is introduced last. Although all of the textbooks explain different uses of all cases very thoroughly and extensively, none of the previously described textbooks provides students with an overview of the case system, nor do any of the textbooks use graphics or diagrams to better explain the function of grammatical cases in sentences. Moreover, since Russian has an extensive case system and many grammatical instances are associated with cases (the use of the verb *нравиться* – *to like* with the dative case; reflexive verbs; two-way prepositions), there is the danger of confusing learners by introducing more “uses” of cases.

The following table provides the above information on sequence and scope.

Table 1: Introduction of Cases in the Beginning Russian Textbooks

<table>
<thead>
<tr>
<th>Textbook</th>
<th>Nominative Case</th>
<th>Preposit. Case</th>
<th>Accusative Case</th>
<th>Genitive Case</th>
<th>Dative Case</th>
<th>Instrumental Case</th>
</tr>
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<tbody>
<tr>
<td><em>Golosa</em> (2 volumes, 20 units)</td>
<td>1, 2</td>
<td>1, 3, 4</td>
<td>5, 7</td>
<td>6, 7</td>
<td>8</td>
<td>9</td>
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<tr>
<td><em>Live from Russia</em> (2 volumes, 12 units)</td>
<td>1, 2, 4</td>
<td>2, 3, 4</td>
<td>5, 6</td>
<td>5, 6</td>
<td>6</td>
<td>10</td>
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<tr>
<td><em>Troika</em> (18 units)</td>
<td>4</td>
<td>4, 5, 6</td>
<td>7, 8</td>
<td>10, 11, 15</td>
<td>13</td>
<td>16, 17</td>
</tr>
<tr>
<td><em>Nachalo</em> (2 volumes, 18 units)</td>
<td>1, 2</td>
<td>3, 7</td>
<td>3, 12</td>
<td>4, 5, 6, 8, 12</td>
<td>6, 8, 9, 10, 13</td>
<td>9</td>
</tr>
</tbody>
</table>

As a result of current Russian textbook presentations of case, students do not have an overview of the case system and do not see cases as connected with each other in any way.

Janda’s (2002) *The Case Book for Russian* constitutes one exception; it is an example of the cognitive approach in explaining the Russian case system in a non-traditional way. Unlike in traditional approaches to case, the author avoids offering rules and focuses instead on explaining
coherent groupings of motives that govern case usage. The book presents the basic meaning of each case, and it also shows all the specific applications of cases and how they relate to the basic meaning. It focuses on only one case at a time, which makes presentation less complicated for a first-time learner. Unfortunately, being complete and very detailed, the book only focuses on grammatical cases and is intended precisely for case instruction. Therefore, it is not suited to be an everyday textbook in a general language class. Another impressive study was performed by Neidle: *The Role of Case in Russian Syntax* (1988), but this book, too, because of its thoroughness, would not work as a textbook in a Russian class with only three to five hours per week. This paper seeks to provide a way to teach and explain case that would be suitable to typical instruction three to five times a week, and that would provide the learners of language with a solid idea about the case system as one meaningful and functional grammatical and semantic unit.

This paper aims to show that a cognitive model of role archetypes and thematic roles can be used to provide a more comprehensive analysis of the Russian case system for learners than what has been previously offered. Although CG is a usage-based theory, its view of language is in itself not a pedagogical method. Therefore, the principles that CG offers need to be incorporated into the class instruction and adapted to students’ needs. CG claims that all grammatical structures and relations are meaningful, but one does not need to be a linguist in order to comprehend these meanings, since they already exist in a human’s general conceptual apparatus. For that reason, the methods of CG can be seen as a shortcut to comprehension of the most problematic grammatical issues by means of the extraction of general rules from the inherent linguistic data. Another big advantage for teachers is that CG does not discount previous research, but rather serves as its symbolic alternative. It can be used independently, and it can also serve as an additional aid for grammar explanation.

In this study, 17 students enrolled in first year Russian were used to test the effectiveness of using CG to teach case. This first-year Russian class served as the experimental group, where the instructor in charge taught the CG approach to case as it came up in the natural course of the textbook, *Golosa*. The instructor for first-year Russian, i.e., the instructor in charge of the experimental group, was trained to present cases relying on a cognitive grammar-based model. He also received all folia and instructions needed for introducing the cases, as well as handouts for students. The activities used for each case ask the student to match the
drawing of the case relationship to a description of the participant roles. Then the students match sentences to the drawing. Lastly, the students create their own diagrams and their own sentences to match or they create sentences and then the diagrams. As each new case is introduced, the instructor can review the old cases and remind the students of the names of cases still to come. These activities are meant to take about 10-15 minutes and are done when the case is introduced in the textbook for the class. The activities used in class are given in Appendix C.

Since there was only one section of first-year Russian at the home institution, classes at another university were chosen as the control site for Russian because they used the same textbook and have roughly the same student class size and demographics. At the other university, no changes in the instruction of cases were made, and students received textbook-based grammar instruction. After the students of both the experimental and the control groups completed one year of instruction, they were given a post-test to assess their knowledge of the Russian case system. Again, both groups were unaware of the upcoming test, so I can suppose that no specific effort or variation of instruction was undertaken and the results I received from the experimental and control groups represent the typical teaching outcomes after one year of regular class instruction.

The Russian test that all students received also contained three assignments. The first task tested meta-knowledge and consisted of ten sentences. In every sentence, there were some (not all) nouns or personal pronouns underlined, and the students were asked to define the cases of the underlined words. The second assignment was a fill-in-the-blank task, where students were asked to fill in the missing words (given in parentheses) in the correct case form. This assignment consisted of eight sentences, with a total of twelve blanks. Here, even if students made a spelling or grammar (wrong declension or gender) mistake, but it was clear that they identified the case correctly, the task was considered successfully completed. The third test section was a free writing with a prompt. The students were given a cartoon and a set of words needed for the description of the picture, and were asked to write five sentences in Russian about what they saw and what was going on. No further instruction was given, and this task was intended to serve a number of purposes: 1) to see whether students were capable of composing an extended sentence using nouns in other than the nominative case; 2) to see whether one of the tested groups used holistically more elaborate sentences than the other; 3) to see whether there was a tendency in any
group to prefer one case over the other, or whether there was a tendency to avoid certain case(s); 4) to see to what extent both tested groups were capable of producing grammatically correct sentences. The complete test and assessment methods are included in Appendix A.

The following section is a discussion of the results of the study. The graphs below show the overall results of the study, which are that the CG-instructed group demonstrated better accuracy in recognizing and using cases than the traditional group, although the drop pattern is similar in both groups.

Table 2a and b: Overview of the data results after three test sections in Group 1 (CG).
Students’ overall performance on all three test sections differs significantly in the CG-instructed group and the group which received the traditional case instruction. The difference in performance was already seen in the first test section. Starting with the first test section, students in the CG-instructed group were more capable of recognizing the cases in Russian sentences and achieved an average result of 83%, while the traditional group identified 61% of the cases on the first test section correctly. A similar point difference was present on the second test section, which asked the students to write the nouns in the blanks in the correct case, assessing practical knowledge of cases. On this assignment, the CG-instructed group scored an average of 70% and the traditional group achieved only 36% correct. The results of the third test section, which
asked students to write sentences on their own, did not differ significantly from the results of the second test section: the CG-instructed group achieved 63% and the traditional group scored 34% as an average. The results of the third test section were hard to compare, although it was evident that the CG-instructed group wrote more extended sentences using more words and participants per sentence. To compare the overall results statistically, I decided to calculate them based on the correctly used nouns and pronouns. A total of 15 correctly used nouns and pronouns in 3D were the maximum score of both groups, and this score was accepted as 100%. Other results were counted from this benchmark. Thus, 14 correctly used nouns/pronouns were counted as 93%; 13 correctly used nouns/pronouns 87%, and so on. After counting all results, it became evident that the CG-instructed group outperformed the traditional group by approximately 28% as an average on all test sections. Although the drop pattern (as seen in Table 3) appears similar for both groups, the CG-instructed group lost 20% as the test progressed from the meta-knowledge to the free writing assignment, while the traditional group lost 27%, which is almost a half of its initial percentage rate after the first test section.

Table 3: Comparison of CG and Traditional Groups
Students in the CG-instructed group demonstrated better ability to recognize inverted word order, while students in the traditional group were unable to provide correct answers when a case different than nominative opened a sentence, as, for example, in (2) on the second test section: Куртку я отдала подруге ‘The jacket [ACC] I gave to my friend [DAT]’. While 11 of 13 students in the CG-instructed group recognized the accusative case, none of the students in the traditional group provided the correct response.

Table 4a and b: Results of the CG-instructed group.
Tables 4a and 4b once again provide the results of the CG-instructed and the traditional groups on all test sections in graph format, organized from left to right by the participants with the highest to the lowest score on the first test section.

To determine whether such difference in performance of the two groups can be considered statistically significant, a paired T-test was performed on study participants’ average results on all three test sections. The T-test results showed that by conventional criteria, the average difference in performance between the two groups on all test sections is considered to be statistically significant, where t equals 9.2750, and the two-tailed P value equals 0.0114 (low). This should be interpreted that, according to the T-test results, it is unlikely that the treatment effect that was observed is due to chance. The mean of the CG-instructed group minus the traditional group equals 28.300. The 95% confidence interval of this difference was calculated to range from 15.172 to 41.428. To interpret these results, I looked at both ends of the confidence interval and asked whether they represent a difference between means that would be important or trivial for case instruction in class. Since even the low end of the confidence interval of 15.172 represents a treatment effect large enough to be considered important for the purposes of this research, I can conclude that the CG-based instruction of grammatical cases to the beginning L2 Russian group had an effect large enough to be considered scientifically relevant.

The results of the CG-instructed group on the first test section average to 83.3% correct case recognition, and the results of the traditional group average to 60.6%. The highest result in the first group equaled 100%, and the highest result in the second group was 73%. The lowest scores were 62% and 46% respectively, which means that the difference between the highest and the lowest scores in the CG-instructed group was 38%, and in the traditional group 27%. Table 5 presents the results of both groups in graph format.

On the second test section, the CG group averaged to 69.6% and the traditional group to 36.4%. The highest scores in both groups were 88% and 63%, and the lowest scores were 50% and 13%. The difference between the highest and the lowest scores was 38% and 50% in the CG group and the traditional group, respectively.

Table 6 presents the results of the second test section in graph format. Student numbers below the diagrams are the same, which were used for the first test section, i.e., they are not sorted from the highest to
the lowest, because they were sorted initially according to the results on the first test section.

Table 5: Test section 1.

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Test Section 1

Table 6: Test section 2.

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</table>

Test Section 2
To compare the results on both the theoretical and the practical sections of the test, unpaired T-tests were performed separately for both sections. The unpaired T-test results of the first test section showed that the two-tailed P value equals 0.0002 and that by conventional criteria, this difference is considered to be extremely statistically significant. The mean of the first group (CG) minus 2nd group (traditional) equals 22.75, and the 95% confidence interval of this difference ranges from 12.54 to 32.96. This means that the CG-based instruction of cases had a positive effect on the meta-knowledge of cases, and the chance that this effect was due to coincidence is extremely low. The results of an unpaired T-test of the second test section demonstrated the following: The two-tailed P value is less than 0.0001 (less than on the first test section) and by conventional criteria, this difference is considered to be extremely statistically significant. The mean of the 1st group minus the 2nd group equals 33.17, and 95% confidence interval of this difference ranges from 20.26 to 46.08, meaning that this interval will contain the true effect value 95% of the time. Although the results of the T-test of both sections proved that the difference in performance is considered to be statistically extremely significant on both test sections, the CG-based instruction effect of the practical part of the test proved to be even more impressive than on the theoretical. It can be inferred from this that the CG-based instruction of the Russian case system has a positive effect on both the theoretical and the practical knowledge, but this effect is slightly more apparent in students’ practical ability to use cases.

The CG-based instruction of cases seems to be more effective for the four of six cases: the accusative, the dative, the instrumental, and the genitive, with the accusative being the leader among the four. Students in the CG-instructed group experience clearly fewer problems with the accusative case than the traditional group. Both groups struggle with the dative case, but the CG-instructed students’ ability to use the dative case in writing is much higher than that of the traditional students. The difference in performance between the two groups in recognition of the instrumental case is striking; while the CG-instructed students apparently know what the instrumental case denotes, the students in the traditional group

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1 An unpaired T-test is used to compare groups when the individual values are not paired or matched with one another, meaning, for example, that the first in the row student in group 1 should not be compared with the first in the row in group 2, but rather the groups will be compared with each other generally. (Motulsky 1999)
experienced difficulty recognizing it. Students in the CG-instructed group were able to use the genitive case better than recognize it while the traditional students’ results are low on both test sections. It could be concluded that the similarity of both groups lies in the fact that students of both groups experienced only little difficulty with the nominative case, and a lot of difficulty with the dative case. In contrast to the traditional group, the CG-instructed group did not experience serious problems with the accusative, the instrumental, and the genitive cases overall.

Students in the CG-instructed group undertook a total of 145 attempts to use nouns/pronouns in any case, and 123 of them were correct. This averages to 11.2 attempts and 9.5 correct applications of cases per student. Students in the traditional group made 66 attempts, 7.3 per student, and 46 of them were correct, 5.1 per student. Of these attempts and correct applications of cases, an average of 6.2 per student in the first group were nouns or pronouns not in the nominative case, and this number in the traditional group equals 3.8 per student. Of these, 4.5 were correct in the CG-instructed group, and only 1.8 in the other group. This information is presented in Table 4.

From the numbers above, it can be shown that the CG-instructed group generally outperformed the traditional group on all levels. It used more nominals, more of them were correct, and it also employed more objects not in the nominative case. This resulted in more correctly used clause participants. A paired T-test that was performed to check the statistical significance of these results showed that the two-tailed P value equals 0.0059, which by conventional criteria is considered to be very statistically significant. This means that the difference in results for benefit of the CG-instructed group is most likely not a coincidence, but the true positive effect of the CG-based explanation of cases.

Students of both groups attempted to use all six cases in their sentences, with the nominative case being used most often in both groups and the instrumental case – least often of all cases. But then the picture changes and we see a reverse distribution: while the accusative case was used most commonly (after the nominative) in the traditional group, it was used least (before the instrumental) in the CG-instructed group. And vice versa, the CG-instructed group tried to use the dative case most commonly (after the nominative), but the traditional group used it least along with the genitive (before the instrumental). Table 5 provides statistical information on all cases, sorted by the frequency of attempts top-down with the averages provided next to the case. Table 6 demonstrates the
average distribution of attempts in graph format, where the left side of every column represents the average results of the CG-instructed group, and the right side shows the results of the traditional group.

Table 7: Average numbers of attempts to use cases on the third test section.

<table>
<thead>
<tr>
<th>Attempted Cases</th>
<th>CG Group</th>
<th>Traditional Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nom.</td>
<td>4,9</td>
<td>1</td>
</tr>
<tr>
<td>Acc.</td>
<td>3,6</td>
<td>1,1</td>
</tr>
<tr>
<td>Dat.</td>
<td>1,8</td>
<td>0,8</td>
</tr>
<tr>
<td>Inst.</td>
<td>0,9</td>
<td>0,2</td>
</tr>
<tr>
<td>Gen.</td>
<td>1,4</td>
<td>0,8</td>
</tr>
<tr>
<td>Prep.</td>
<td>1,2</td>
<td>0,9</td>
</tr>
</tbody>
</table>

It can be seen from the above graph that although the CG-instructed group preferred other cases over the accusative, and the traditional group attempted to use the accusative case more commonly than other oblique cases, the average use frequency of this case is almost equal for both groups. The frequency of attempts to use the prepositional case is also close for both groups. However, the difference in average attempts to use the dative, the instrumental, and the genitive cases is more noticeable: students in the CG-instructed group attempted to use the dative case almost twice per student on average, while the traditional group did not even get an average of one attempt per student. While there
was almost one attempt per student to use the instrumental case in the CG-instructed group, the traditional group avoided the use of this case almost completely, except for one student who used the instrumental case twice for similar statements. Almost every student in the CG-instructed group attempted to use the genitive case, and some of them tried to use it three and even four times. Half of the students in the traditional group did not make an attempt to use the genitive case, and only two students attempted to use the genitive case twice in their sentences. Generally, no obvious “avoidance” of certain cases was present in the CG-instructed group, but it might be possible to talk about the attempt to completely evade the instrumental case in the traditional group.

The students in the CG-instructed group are more accurate with the dative, the instrumental, and the genitive case. Students in the traditional group prefer to use the accusative and the prepositional cases, but their results on these cases are still lower than those in the CG group. Students of both groups demonstrate almost similar performance on the accusative and the prepositional cases, but traditional students fall behind in the use of the nominative, the dative, the instrumental and the genitive cases, as seen in Table 8.

Table 8: Average numbers of correctly used cases on the third test section.

<table>
<thead>
<tr>
<th>Correctly Used Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>CG Group</td>
</tr>
<tr>
<td>Traditional Group</td>
</tr>
<tr>
<td>Nom. 4.8</td>
</tr>
<tr>
<td>Acc. 0.8</td>
</tr>
<tr>
<td>Dat. 1.1</td>
</tr>
<tr>
<td>Inst. 0.9</td>
</tr>
<tr>
<td>Gen. 0.9</td>
</tr>
<tr>
<td>Prep. 0.8</td>
</tr>
</tbody>
</table>

The distribution of correctly used oblique cases in the CG-instructed group is nearly equal, while the traditional group, again, shows certain “layers” where the accusative and the prepositional cases are
clearly better mastered by students than the dative, the instrumental, and the genitive cases. The average correct applications of every oblique case in the CG-instructed group make up almost one (1) per student, and almost five participants in the five sentences produced by students were used correctly in the nominative case. In the traditional group, only 3.3 participants as average per student were used correctly in the nominative case, and the correct use of oblique cases does not rise over 0.7 (accusative) per student. The dative, the instrumental, and the genitive cases each were used only by one of the nine students, while other students did not show any correct applications of these cases.

Although it is difficult to draw any definite conclusions, it can be inferred from the above data that the strength of the CG-instructed students compared with the traditionally-instructed students lies in the correct use of the dative, the instrumental, and the genitive cases.

Despite the apparently high percentage in the use of the accusative case in the traditional group, this positive result is dubious: the six correct applications of the accusative case are all the result of students forming sentences like “I see the computer,” where the noun computer must be used in the accusative case, but its form in the accusative case is not any different from its nominative form. Although these answers were considered as correct, it should be mentioned that all of them employ masculine inanimate nouns, which do not change their form in the accusative case. The results on this case from the first and second test section in the traditional group did not show such high achievement, and students in this group clearly had serious problems distinguishing and using the accusative case. Therefore, the result from the third test section may be only incidental. Sentences created by the students in the CG-group also employ the noun computer in most of their answers, but there are also other feminine nouns, which change their ending in the accusative case, and their correct usage demonstrates students’ recognition of the accusative case.

The results showed that while the CG-instructed students were able to demonstrate their mastery of Russian cases by using all oblique cases equally, the traditional students avoided the use of the instrumental case, and were not capable of producing correct statements with the dative and the genitive cases. The results of the correct applications of these cases approach zero in the traditional group. Thus, the CG-based instruction can account for the CG-instructed students’ overall better outcome on the
writing part, but especially for their mastery of the dative, the instrumental and the genitive cases.

The data, gathered at the end of one full year of language instruction, demonstrated that the CG-based instruction of Russian cases promotes students’ ability to recognize and use cases more effectively and accurately. Based on these results, one might expect that the CG-based instruction of cases would be especially beneficial for any language possessing an elaborate case system. While the traditional explanation might suffice when teaching a case system that consists of four or less cases, the CG-based instruction seems to be more efficient when the number of cases in a system is higher as in Russian, because it provides students with a clearer and more comprehensive look of the case system. The traditional explanation, however, introduces cases in chunks, without revealing the systematic relations between the cases.

Table 9 below demonstrates at a glance the overall performance of the CG-instructed and the traditionally-instructed students of Russian, showing their progress/regress from the first test section to the last.

Table 9: Comparison between the CG-instructed and the traditional groups of Russian.

![Russian Language Section: Comparison](image-url)
While the results of 36% and 34% exhibited by the traditional group are typical results on such assignments after one year of instruction, the results of 69% and 63% in the CG group are surprisingly high.

One of relevant questions is whether the CG-based instruction of cases develops stronger ability to identify cases theoretically or the ability to use cases practically. To assess theoretical and practical skills, the outcomes of different test sections were examined. The results revealed that the CG-based explanation of cases actually targets and benefits students’ practical abilities more than their ability to recognize cases in theory. On the other hand, however, the results did not indicate that traditionally-instructed students demonstrated better ability in theory than the CG-instructed students. The CG-instructed students of Russian performed even better than the traditionally instructed students. The difference in the performance on the second test section in the Russian test groups was even higher: 33% in favor of the CG-instructed group. Such result is considered to be extremely statistically significant by conventional criteria (P value is less than 0.0001). Moreover, even though the results of the third test section (free writing) cannot really be compared statistically, it was shown above that the CG-instructed students of Russian language groups demonstrated holistically better accuracy with cases on the free-writing part; the average difference in performance was roughly counted to be 29% for Russian. These data suggest that the CG-based explanation of cases in class proved to be a more effective method for teaching Russian cases.

The Russian CG-instructed groups demonstrated better accuracy with the accusative and the genitive cases; students of the CG-instructed Russian group revealed better knowledge of the instrumental and the dative case than the traditionally instructed students. Although the main study target was statistical data of correct and wrong answers on cases, the post-test also included a short questionnaire. One question asked students what was the hardest grammar topic. Of all traditionally instructed students in Russian test groups, 60% mentioned cases or articles. Among students who received the CG-based explanation of cases, only 39% wrote that cases presented the major difficulty. In other words, the CG-based introduction of cases did not frustrate L2 learners, but rather eased the acquisition process and facilitated the understanding of case usage.
Appendix A
A.2. Copy of the Post-Test Used for Russian
A.2.1. Correct Answers and Assessment Criteria

A.2. Copy of the Post-Test Used for Russian

By answering the questions and returning this questionnaire, it is assumed that you have given your consent for the information you provide here to be used in a study and that you are over the age of eighteen. All participants will remain completely anonymous. Thank you for your participation and cooperation!

Name: __________________________  Date: _____________________

Time started: _______________

Time ended: _______________

1. In what case are the underlined nouns/pronouns in these sentences? (Write a letter N, A, D, I, P or G above words)

   1. Кто-то открыл ключом дверь.
   2. На улице он подарил ей кольцо своей бабушки.
   3. В самолёт нельзя брать воду.
   4. Этот студент будет работать учителем в школе.
   5. Тебе нравятся эти туфли?
   6. В общежитии нельзя курить.
   7. Я вчера видел новую машину подруги.
   8. Мне не понятны вопросы нашего преподавателя.
   9. Ты покажешь дочери, как писать карандашом?
   10. Одного студента не было в классе.

2. Fill in the blanks with the correct case form of the given word.

   1. Отец помог _____________ (сын) с _____________ (работа).
   2. _____________ (куртка) я отдала _____________ (подруга).
   3. Максим всегда опаздывает на _____________ (работа).
   4. Родители подарили _____________ (дети) хорошие подарки.
   5. Дом моего _____________ (друг) большой, но уютный.
   6. Катя сложила _____________ (одежда) в _____________ (шкаф).
7. В ______________ (дом) было тихо.

3. Describe the picture. What do you see? What is going on? Please, write 5 full sentences.

Слова:
компьютер (м)
платок (м) (*kerchief*)
врач / доктор
аптечка (ж) (*ambulance box*)
рука (ж)
стол
объяснять (to explain)
показывать (to show)

1. __________________________________________
2. __________________________________________
3. __________________________________________
4. __________________________________________
5. __________________________________________

4. Please finish following sentences:
The hardest topic in Russian grammar is...
The most difficult case to understand was…
I still don’t understand…

THANK YOU!
A.2.1. Correct Answers and Assessment Criteria

Test section 1:
1. Correct: N, I, A
2. Correct: P, N, D, A, G
3. Correct: A, A
4. Correct: N, I, P
5. Correct: D, N
6. Correct: P
7. Correct: A, G
8. Correct: D, N, G
9. Correct: N, D, I
10. Correct: G, P
Total: 26 nouns/pronouns

Test section 2:
1. Correct: сыну, работой (also accepted: работом)
2. Correct: куртку, подруге
3. Correct: работу (also accepted: работе)
4. Correct: детям (also accepted: детам)
5. Correct: друга (also accepted: друзья)
6. Correct: одежду, шкаф (also accepted: шкафу, шкафу)
7. Correct: дому

Total: eight articles (two discussed separately)

Test section 3: Free Writing Part
For the purposes of statistical comparison, the percentage rate of the third test section was calculated based on the correctly used nouns and pronouns with respect to cases. The highest result of 15 correctly used nouns and pronouns was taken as 100%.

Appendix B
In CG notation, a circle represents a thing and an arrow a transfer of energy. The relationships between objects are described with the following figures. The figures represent the sentence ‘Kathy brought a cake to her sister.’

Figure 1: Name/Thing (NOM)
Figure 2: Name/Thing (NOM) performing action.

Figure 3: Name/Thing (NOM), patient (ACC), receiver (DAT)

Figure 4: Name/Thing (NOM), patient (ACC), receiver (DAT), referent (GEN)
Figure 5: Clause containing two nominatives.

Figure 6: The accusative case.

Figure 7: An action involving a name, a receiver, and an imaginary patient.

a. Я тебе помогу. ‘I will help you.’
b. Он тебе верит. ‘He believes you’
Referee: сестра
Name: дети

Figure 9: Referee of a name.

a. Это дети моей сестры. ‘These are my sister’s children.’

Figure 10: Referee of a patient

Name: он
Patient: холод

a. Он помнит холод зимы. ‘He remembers the cold of winter.’
Figure 11: Referee of a receiver
   а. Я доверяю друзьям родителей. ‘I rely on my parents’ friends.’

Figure 12: The instrumental case.
   а. Катя выпекла пирог своими руками. ‘Kathy baked a cake with her own hands.’

Figure 13: The instrumental case without a patient.
   а. Я вижу глазами. ‘I see with (my) eyes.’
A Cognitive Grammar Approach to Teaching the Russian Case System
Arnett, Lysinger

Figure 14: The prepositional case.

a. В доме Катя подарила пирог сестре Лизы. ‘In the house, Kathy gave Lisa’s sister a cake.’

Appendix C

1. Examples of short sentences. Students are asked to define the roles that the participants are playing, and to draw or to match diagrams with the corresponding sentences.

<table>
<thead>
<tr>
<th>Sentences</th>
<th>Roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>A student sits in class.</td>
<td>Name + Place</td>
</tr>
<tr>
<td>He saw a man.</td>
<td>Name + Patient</td>
</tr>
<tr>
<td>This is my dad’s hat.</td>
<td>Name + Name + Referee</td>
</tr>
<tr>
<td>She writes an essay.</td>
<td>Name + Patient</td>
</tr>
<tr>
<td>She is waiving with her hand.</td>
<td>Name + Instrument</td>
</tr>
<tr>
<td>Igor gives a present to Natalie.</td>
<td>Name + Patient + Receiver</td>
</tr>
<tr>
<td>He cleans his teeth with Colgate.</td>
<td>Name + Instrument + Patient</td>
</tr>
<tr>
<td>She is my student.</td>
<td>Name + Name</td>
</tr>
<tr>
<td>I am giving you an advice.</td>
<td>Name + Patient + Receiver</td>
</tr>
<tr>
<td>I see my friend’s bag.</td>
<td>Name + Patient + Referee</td>
</tr>
<tr>
<td>I was sitting in my room.</td>
<td>Name + Place</td>
</tr>
<tr>
<td>A boy is singing.</td>
<td>Name</td>
</tr>
</tbody>
</table>
2. Examples of long sentences. Students are asked to define the roles and draw the diagrams, or out of given diagrams to pick the one that fits the sentence.

a. Ирина купила мороженое ребёнку подруги в киоске.  
   ‘Irina bought an ice-cream for her friend’s child in a kiosk.’

![Diagram]

b. Максим отослал Игорю конспекты Елены электронной почтой.  
   ‘Max sent Elena’s summary to Igor per e-mail.’

![Diagram]
с. На кухне он отрезал старушке ножом кусок хлеба.
‘In the kitchen, he sliced with a knife a piece of bread for the old woman.’

Works Cited:
Davidson, Dan E., Kira S. Gor, and Maria D. Lekic. Live from Russia! 2nd ed. Dubuque: Kendall/Hunt Company, 2008.


