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# ОБРАБОТКА ТЕКСТА И КОГНИТИВНЫЕ ТЕХНОЛОГИИ TEXT PROCESSING AND COGNITIVE TECHNOLOGIES

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### <sup>†</sup> Редакторы:

Р.К. Потапова

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СОДЕРЖАНИЕ	Стр
Лаура А. Янда КОГНИТИВНАЯ МОДЕЛЬ РУССКОГО ВИНИТЕЛЬНОГО ПАДЕЖА	20
Николай Алмаев ДИНАМИЧЕСКАЯ ТЕОРИЯ ЗНАЧЕНИЯ: НОВЫЕ ВОЗМОЖНОСТИ ДЛЯ КОГНИТИВНОГО МОДЕЛИРОВАНИЯ	44
<b>И.З. Батыршин, О.Р.Галеев, Р.А.Закуанов</b> КОГНИТИВНЫЙ АНАЛИЗ ОДНОГО КИТАЙСКОГО МАНУСКРИПТА	57
Лариса И. Белехова КОГНИТИВНЫЕ МОДЕЛИ ВЕРБАЛЬНЫХ ПОЭТИЧЕСКИХ ОПИСАНИЙ	69
И.С.Бороздина К ВОПРОСУ ОБ ИСПОЛЬЗОВАНИИ СИНТАГМАТИЧЕСКОГО ПОДХОДА В ИЗУЧЕНИИ СЕМАНТИКИ ПРОСТРАНСТВЕННЫХ ПРЕДЛОГОВ	76
Евгений Брейдо МЕТРИКА РУССКОГО СТИХА В ЗЕРКАЛЕ ИНТЕРВАЛЬНОЙ МОДЕЛИ	80
Людмила Г.Веденина ЛИНГВОСТРАНОВЕДЧЕСКИЙ СЛОВАРЬ-ТЕЗАУРУС ЛИНГВОКУЛЬТУРЕМ	94
Виктор А. Вотинов СУЩЕСТВУЕТ ЛИ СВЕРХТЕКСТ КАК ЕДИНИЦА КОММУНИКАЦИИ?	95
Павел В. Гращенков КОГНИТИВНАЯ МОТИВАЦИЯ ЛЕКСИКО-ГРАММАТИЧЕСКОЙ КАТЕГОРИИ ПРИЛАГАТЕЛЬНОГО В ЯЗЫКАХ МИРА.	96
Борис В. Добров, Наталья В. Лукашевич АВТОМАТИЧЕСКАЯ ОБРАБОТКА БОЛЬШИХ МАССИВОВ АНГЛОЯЗЫЧНЫХ ТЕКСТОВ	114
<b>В.А. Загинайко</b> ЛИНГВИСТИЧЕСКИЙ ПОДХОД К ЧТЕНИЮ МАТЕМАТИЧЕСКОЙ ЛИТЕРАТУРЫ	137
В.А. Загинайко ПОДХОД К АВТОМАТИЧЕСКОМУ ИЗВЛЕЧЕНИЮ ИНФОРМАЦИИ ИЗ ТЕКСТА	148

## A COGNITIVE MODEL OF THE RUSSIAN ACCUSATIVE CASE

#### Laura A. Janda

USA, The University of North Carolina lajanda@email.unc.edu

#### Summary

Despite their number and complexity, all the uses of the Russian accusative case can be shown to fit together in a network of related and in some instances overlapping meanings, one that even accounts for idiomatic uses. In addition to demonstrating the descriptive and theoretical power of the radial category and metaphorical mapping, this analysis reveals significant facts about the way in which information is organized in Russian. Directed motion occupies a prominent place in the linguistic imagination of Russian. Just looking at something constitutes a visual voyage. Human understanding of time is patterned after how we perceive space, motivating the conventional conclusion in Russian that if a journey has a spatial destination, then an event has a temporal destination as well. Time is clearly conceived of in Russian as a unidimensional line stretching away from us in two directions. Change to a new state is comprehended as movement to a new location. Going to a destination behind an item can be interpreted as catching hold, replacing, or exceeding that item. Feeling nauseated or shaken up are not activities people engage in; these are things that just happen to people without any apparent agent. The accusative case puts all these ideas into a single coherent package.

#### 0.0 Introduction

In the course of the past fifteen years, I have devoted considerable attention to the semantics of the Russian case system (see particularly Janda 1988, 1990, 1993, and 1999). My analysis of case meanings has been consistently predicated upon the framework of cognitive linguistics (primarily as defined by Lakoff 1987, Langacker 1987 & 1991, and Johnson 1987). After having examined the dative, instrumental, and genitive cases, I naively assumed that the remaining cases would hold no great mysteries and began writing a book that would explain the entire Russian case system (Janda forthcoming). While neither the nominative nor the locative are entirely trivial, their descriptions have turned out to be more or less what I expected them to be. The accusative case, however, has provided much more challenge than I anticipated, and I will devote this paper to sharing the results of my struggles to make sense of this case.

The concepts from the cognitive linguistic framework that figure most prominently in my analyses of case semantics are the radial category (which accounts for the gross structure of semantic networks) and metaphorical mapping (which accounts for the finer details of variations on meanings). The existence of radial categories is postulated upon empirical observations of human categorization, and radial categories have proven particularly valuable for analyzing polysemous linguistic units such as case. The radial category consists of a network of category members (meanings) all of which bear relationships to a central prototype as well as to an abstract schema. This model enables us to examine the internal structure of a category that has a diverse array of members, yet still shows coherence. In the analysis that follows, the accusative case will be described as a radial category with three groups of members, all of which are motivated by a single abstract idea and related to each other in a straightforward fashion. This model allows us to avoid descriptions of case that either ignore the semantic unity of a given case (by describing it as a set of unrelated uses, or even as a group of "homonyms" — this is the approach most often found in reference grammars), or deny the actual complexity of case usage (by referring only to an abstract meaning without articulating how this meaning motivates the complex spectrum of observed uses — as was the case with van Schooneveld 1978, and to a lesser extent Jakobson 1936/1971, 1958/1971, who, though they did speak about general and specific meanings, concentrated on the former and never fully expounded the relationship between the two).

Metaphorical mapping is the result of the human cognitive tendency to take ideas from one domain and apply them to another. The most common source domain for case semantics (and perhaps for the semantics of natural languages in general) is space. Spatial relationships are frequently extended to other domains such as time, purpose, causation, and action. The strategy in the description of the accusative case that follows is to identify the spatial meaning of various uses of the accusative and then explore how these uses are mapped into other domains.

One additional advantage of using the cognitive linguistic framework to perform semantic analyses is that this model brings into relief the basic concepts that organize human thought. It is thus possible to view the linguistic phenomena we observe as artifacts of cognition indicating how we as human beings use our perceptual and intellectual capacities to make sense of our world. Significant discoveries can be made by exploring the systematic use of metaphor to comprehend realities such as time, causality, and states of being.

The basic spatial relations that compose the meanings of the accusative will be diagrammed and also given prose captions (in small caps). The diagrams, like the prose captions, are mnemonic devices, and do not imply any psychological reality. Their purpose here is merely to support the description.

## 0.1 Overview of the accusative case

The radial category of the accusative case is deceivingly simple, containing a prototype

(ACCUSATIVE: A DESTINATION) and two related meanings (ACCUSATIVE: A DIMENSION and ACCUSATIVE: AN ENDPOINT).

An apt subtitle for the accusative would be "Toward, down, and at the bottom of a slippery slope". The accusative case can be used to express all three actions: moving to a place (toward a slippery slope = ACCUSATIVE: A DESTINATION), moving through a place (down a slippery slope = ACCUSATIVE: A DIMENSION), and reaching a terminal point (at the bottom of a slippery slope = ACCUSATIVE: ANENDPOINT). Just as running up to, sliding down, and arriving at the bottom of a slippery slope can be all folded into one continuous action, the three meanings of the accusative are parts of a continuum without precise boundaries between them.

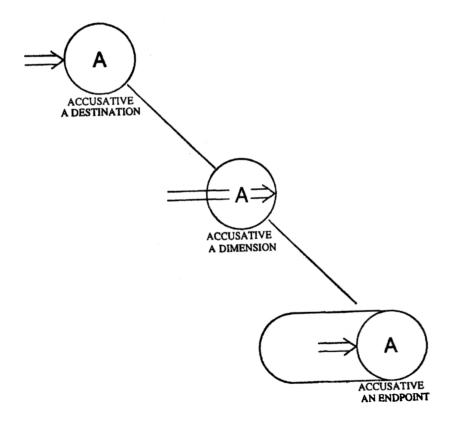


Fig.1. The accusative case

Above all else, the accusative describes a destination, and this is equally true for all of its meanings. The relations among the three meanings of the accusative are noticeably different from those that we see in the other cases with multiple meanings (the nominative, instrumental, dative, and genitive). Rather than being relatively discrete and independent (but related), the meanings of the accusative are like the nesting parts of a матрёшка doll. The basic meaning of ACCUSATIVE: A DESTINATION is the biggest, least specific meaning; it does not analyze its object in any way. An item marked by ACCUSATIVE: A DESTINATION is just a destination, its structure is of no particular interest. ACCUSATIVE: A DIMENSION, however, focuses on a destination extended through time, space, or some other dimension. ACCUSATIVE: AN ENDPOINT takes this concept even further, focusing specifically on the endpoint of a destination extended through some dimension; it can be understood as a destination (endpoint) within a destination. In an abstract sense, ACCUSATIVE: A DESTINATION corresponds to the English preposition to, ACCUSATIVE: A DIMENSION to the preposition through, and ACCUSATIVE: AN ENDPOINT to the phrase through to the end. Overall, one can visualize the accusative meanings as a megaphone or a telescope, with ACCUSATIVE: A DESTINATION at the wide end, ACCUSATIVE: ANENDPOINT at the narrow end, and ACCUSATIVE:

A DIMENSION in between. The accusative operates on a scale from general to specific, and the boundaries between submeanings are rather diffuse.

Table 1. The distribution of prepositions across the three meanings of the accusative.

ACCUSATIVE: A DESTINATION	ACCUSATIVE: A DIMENSION	ACCUSATIVE: AN ENDPOINT
в 'in, into; on, at; for'	в 'in, during; like'	в 'in, at; at the end of
на 'to, on, onto; on, at; for'	на 'for, lasting; to'	
за 'behind; for'	за 'during'	за 'away; by the end of
o 'against'	o 'with'	
по 'up to; after, to get'	no 'through; each'	
Под 'under, toward; for use, as'	под 'like; to the tune of	
Про 'for'	про 'about'	
	c 'approximately'	
	сквозь 'through'	
•	через 'through'	через 'across, after; in at the end of

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Another hallmark of the accusative case is the way it deploys prepositions. With all other cases, each preposition is associated with only one submeaning, however it is not uncommon for prepositions to use two or even all three meanings of the accusative. This table (Table 1) demonstrates the distribution of prepositions across the three meanings of the accusative.

In addition a number of postpositions are associated with the accusative case; all these postpositions are used to express time with only one meaning of the accusative, ACCUSATIVE: AN ENDPOINT, and these will be covered in section 3.2.

## 1.0 ACCUSATIVE: A DESTINATION

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, namely the direct object; and in the domain of purpose its meaning is roughly equivalent to the English word/or.

## 1.1 ACCUSATIVE: A DESTINATION in the domain of space

In the domain of space, ACCUSATIVE: A DESTINATION always requires a preposition to tell us what sort of trajectory is envisioned. The prepositions involved are: B 'to, into', Ha 'to, onto', o 'against', no 'after, to get', 3a 'to the far/back side of, and nog 'to the underside of, approaching'. Trajectories through space are subject to metaphorical mapping to numerous domains, and these will be explored in turn, once the spatial meanings have been established.

## 1.1.1 B + ACCUSATIVE: A DESTINATION in the domain of space

Physical movement through space in the direction of or entering something is the most basic use of the preposition B expressing ACCUSATIVE:

(1) Лишь 7 процентов людей выразили желание выехать в другие места. [Only 7-NOM percent-GEN people-GEN expressed desire-ACC move to other places-ACC.] Only 7 percent of the people expressed a desire to move to other places.

Vision is metaphorically conceived of as moving along a path from the eyes to what they perceive (this extension is of course not supported by the science of optics, but rather by the common metaphor that seeing is touching). Because human beings experience sight as a way of perceptually reaching out to the world around them, the use of ACCUSATIVE: A DESTINATION to express looking is well motivated.

(2) Он ей посмотрел в глаза. [He-NOM her-DAT looked into eyes-ACC. He looked into her eyes.

The movement of sound and telephone signals likewise motivates the use of the accusative with verbs like звонить 'call':

(3) Он звонил в различные организации. [He-NOM called to various organizations-ACC. He called various organizations.

It is very common for human beings to understand states of being as locations that one can be in, escape from, or, in the case of the accusative, arrive in. The spatial understanding of states of being as places motivates the metaphorical usage of ACCUSATIVE: A DESTINATION illustrated in this example:

(4) Иногда любовь переходит в ненависть. [Sometimes love-NOM passes to hatred-ACC.] Sometimes love turns into hatred.

In the abstract domain of mathematics, a "destination" is a factor involved in multiplication, motivating mis common use of B+ ACCUSATIVE: A DESTINATION:

За последние пять лет преступность увеличилась почти в четыре раза.
 [In past five-ACC years-GEN crime-rate-NOM increased nearly in four times-ACC.]
 In the past five years the crime rate has nearly quadrupled.

The use of the accusative rather than the genitive-accusative with the preposition B belongs here; it refers exclusively to people who are taking on an identity or joining a group. The most common example is идти/ехать в гости [go to guests-ACC] 'go on a visit' (where the subject takes on the identity of a guest); but this is a productive phenomenon in Russian, as we see in the following example:

(6) Лора поступила в ученицы к маникюрше. [Lora-NOM entered to apprentices-ACC to manicurist-DAT. Lora joined (became one of) the manicurist's apprentices.

## 1.1.2 Ha + ACCUSATIVE: A DESTINATION in the domain of space

The behavior of Ha is very similar to that of B. The only difference is that B can imply entering the accusative object, whereas Ha treats it like a two-dimensional surface. Like B, Ha is often used to describe the destination to which objects move or are moved:

(7) Маленькая змея влезала на *горячий камень* и поднимала голову.

[Small snake-NOM crawled-up on hot stone-ACC and lifted head-ACC.]

The small snake crawled up on the hot stone and lifted its head.

This does not mean that the use of на is restricted to use with objects that have surfaces, but rather that surfaces are prototypical for на. There are a number of locations that are conventionally conceived of as surfaces (as opposed to containers) in Russian, thus motivating the use of на, among them: islands (на остров 'to the island'), peninsulas (на полуостров 'to the peninsula'), mountain ranges (на Урал 'to the Urals'), clearings (на площадь 'to the square'), points of embarcation for travel (на вокзал 'to the train station'), events (на концерт 'to the concert'), compass points and other generalized locations (на запад 'to the west', на целину 'to the virgin lands'), certain buildings, work/trade environments, and academic units (на завод 'to the factory', на кафедру 'to the department of a university'), and the upper floors of buildings (на первый, второй... этаж 'to the second, third... floor').

As we saw above, vision is understood as directed motion, motivating the use of Ha with things that can be looked upon or at:

(8) Я смотрю на ее личико, гладенькое и овальное, как яичко. [I-NOM look on her face-ACC, smooth and oval-ACC, like an egg-NOM.]

I look at her face, smooth and oval like an egg.

The fact that there is a direction indicated, even if there is no actual motion, is often sufficient to trigger the ACCUSATIVE: A DESTINATION meaning via metaphorical extension:

Президент проводит политику, направленную на поддержание тесных связей с Китаем.
[President-NOM conduct policy-ACC, directed-ACC on support-ACC close ties-GEN with China-INST.]

The president is setting policy aimed at supporting close ties with China.

This idea of energy rather than actual objects moving toward a destination inspires further uses of на, which function to some degree as fixed phrases, as in this example

Горький никогда не претендовал на роль "верховного судьи" литературы.
 [Gor'kij-NOM never not aspired/claimed on role-ACC "supreme judge"-GEN literature-GEN.]
 Gor'kij never claimed to be the "supreme judge" of literature.

## 1.1.3. 3a + ACCUSATIVE: A DESTINATION in the domain of space

In its basic spatial use, the preposition 3a takes an object beyond or behind its destination:

(11) Вечерело и солнце закатывалось за горизонт.
[Night-fell and sun-NOM rolled-away behind horizon-ACC.]
Night was falling and the sun was rolling away behind the horizon.

This trajectory motivates several important idioms, such as: сесть за стол [sit-down behind table-ACC] 'sit down at the table' and сесть за руль [sit-down behind steering-wheel-ACC] 'take the wheel (of a vehicle)', выйти замуж за, за границу [behind border-ACC] 'abroad'.

Arrival to a point behind an object is associated in the human mind with gripping and restraint, motivating the use of 3a to express grabbing or holding. Common examples involve hands, as in B39TbC9 3a pyky [take behind hand-ACC] 'join hands' and Becth 3a pyky [lead behind hand-ACC] 'lead by the hand', and the following example illustrates this use of the accusative:

(12) Полицейские крепко держали его за плечи. [Policemen-NOM firmly held him-ACC behind shoulders-ACC.]

The policemen held him firmly by the shoulders.

Replacement or exchange of items is also cognitively associated with arrival to a position behind an object because placing one thing behind another is often the first step in replacing or exchanging items (cf. English use of the word *backup* to signify a replacement). The most common transaction of this kind is the receipt of goods or services in exchange for money (here the use of 3a overlaps with its use meaning 'for' in the domain of purpose, explained below):

(13) Англичане приобрели дочку за мизерную плату у 17-летней цыганки.

[English-people-NOM obtained daughter-ACC for wretched sum-ACC by 17-year-old gypsy-GEN.]

The English [couple] obtained a daughter from a 17-year-old gypsy girl for a wretched sum.

Finally, in the metaphorical space of numbers, 3a can name a number that is exceeded, as in:

(14) Набралось за *сотню* желающих.
[Gathered beyond hundred-ACC interested-parties-GEN.]
More than *a hundred* interested parties gathered.

## 1.1.4 O + ACCUSATIVE: A DESTINATION in the domain of space

The preposition o, like Ha, treats the accusative object as a surface, but it requires that contact be made and that there be some kind of force or pressure, usually involving leaning on or striking the object.

(15) Около четырёх часов утра послышались сильные удары о *корпус* корабля.

[Around four hours-GEN morning-GEN were-heard strong blows-NOM against hull-ACC ship-GEN.]

Heavy blows against the hull of the ship were heard at about four in the morning.

O+ ACCUSATIVE: A DESTINATION also provides semantic structure for the idiom δοκ ο δοκ [side-NOM against side-ACC] 'side by side'.

## 1.1.5 No + ACCUSATIVE: A DESTINATION in the domain of space

Most frequently no with the accusative means 'up to' a certain point. Some activity is progressing through some space, and the accusative item is its destination, the place where it stops.

Было очевидно, что его дед привык стоять по колено в навозе и шуровать лопатой.
 [Was obvious, that his grandfather-NOM accustomed stand up-to knee-ACC in manure-LOC and stoke shovel-INST.]
 It was obvious that his grandfather was used to standing up to his knees in manure and heaving a shovel.

The next example demonstrates a metaphorical extension to the domain of action: the arranging of meetings is an activity which has six as its stopping point/destination.

(17) Директору назначали ежедневно по *шесть* деловых свиданий.

[Director-DAT arranged daily up-to six-ACC business meetings-GEN.]

They were arranging up to six business meetings a day for the director.

# 1.1.6 Под + ACCUSATIVE: A DESTINATION in the domain of space .

In the domain of space, the preposition под expresses a destination 'under' an item:

(18) На таёжной трассе погиб тигр, попавший под колёса проезжавшего лесовоза.
 [On taiga route-LOC died tiger-NOM, fallen-NOM under wheels-ACC passed logging-truck-GEN.] A tiger that fell under the wheels of a passing logging truck died on the taiga road.

More frequently под is used to describe the creation of metaphorical relationships, often involving power, as in this newspaper headline:

(19) Русские пограничники в Грузии взяты под наблюдение. [Russian border-guards-NOM in Georgia-LOC taken under observation-ACC]
Russian border guards are put under observation in Georgia

## 1.2 ACCUSATIVE: A DESTINATION in the domain of time

The conceptualization of time in terms of space is one of the most common metaphorical mappings encountered in language (Lakoff 1987, Johnson 1987). If a destination in space is the point where something arrives, then a destination in time is the point when something transpires. Both в and на are deployed in the domain of time, particularly to express days and times of day: в пятницу, в семь часов вечера, на следующий день, в первый раз 'the first time', в последний раз 'the last time', на этот раз 'this/that time'.

The preposition no preserves its meaning of 'up to' in the domain of time, as *this* example demonstrates:

(20) С середины января по конец февраля вооружёнными отрядами исламистов уничтожено свыше 600 мирных граждан, включая стариков и детей.

[From middle-GEN January-GEN up-to end-ACC February-GEN armed divisions-INST Islamists-GEN destroyed more 600 peaceful citizens-GEN, including old-people-GEN and children-GEN.]

From the middle of January through the end of February more than 600 peaceful citizens, including children and the elderly, were destroyed by armed divisions of Islamists.

Parallel to its spatial uses, под can indicate a time approaching another set time:

(21) Возвращаясь под утро, она говорила себе: ладно, обойдётся. Чтонибудь придумаю в такси.
[Returning under morning-ACC, she-NOM said self-DAT: ok, work-out. Something-ACC think-up in taxi-LOC.]
Returning toward morning, she said to herself: ok, things will work out. I'll think something up in the taxi.

#### 1.3 ACCUSATIVE: A DESTINATION in the domain of action

The prototypical sentence (SVO) involves the direction of action initiated by the subject toward the object. This is metaphorically conceived of as a "movement" of the action from the subject to the direct object, the destination of the action of the verb. This logic motivates a cognitive link between locations that are the destinations of motion through physical space and the grammatical function of the direct object, and it is logical therefore that ACCUSATIVE: A DESTINATION marks both these uses. In this example the action of pressing is directed toward the button:

(22) Я нажал большую круглую кнопку лифта.

[I-NOM pressed big round button-ACC elevator-GEN.] I pressed the elevator's big round button.

Of course physical movement and contact are not necessary, and the ACCUSATIVE: A DESTINATION is used for all kinds of direct objects, as in this example:

(23) Я вёл двойную жизнь. [I-NOM led double life-ACC] I led a double life.

Although the vast majority of accusative direct objects are embedded in an SVO phrase, they frequently appear without any subject, and can also be used without any verb, as these examples attest (examples 24-27 show syntactic omission of the subject, whereas example 28 illustrates lexical omission, manifested primarily with verbs meaning 'nauseate' and 'shake'):

- (24) Вот уж поистине режут курицу, несущую золотые яйца! [Well already indeed slaughter hen-ACC, laying-ACC golden eggs-ACC!]
  Well now they really are killing the hen that lays the golden eggs!
- (25) Сарай зажгло.
  [Barn-ACC set-on-fire.]

  The barn was set on fire.
- (26) Курс интенсивной терапии решено продолжить. [Course-ACC intensive therapy-GEN decided continue.] It was decided to continue the course of intensive therapy.
- (27) Ha pyky!
  [Here hand-ACC!]
  Here, take my hand!
- Bac не тошнит от того, что Чечня считается территорией России, а там регулярно похищают и убивают людей?
  [You-ACC not feel nauseated from that-GEN, that Chechnya-NOM is-considered territory-INST Russia-GEN, but there regularly capture and kill people-ACC?]
  It doesn't make you sick that Chechnya is considered a Russian territory, but people are being captured and killed there?

# 1.4 ACCUSATIVE: A DESTINATION in the domain of purpose

Now we move to a more nebulous realm, that of the wishes, wants, and hopes that make up the human will. Moving the will in a certain direction means using it as a cause to produce a desired effect. Here we see ACCUSATIVE: A DESTINATION fleshed out as an object toward which an agent is directing its will, its sense of purpose. Usually this takes the form of somebody doing something for something or somebody (and perhaps for a reason). This kind of 'for' is most commonly expressed by the preposition Ha, though B, 3a, and less frequently not and no are deployed for this purpose. In this first example, the purpose of Moscow's taking action is the defense of one of its citizens; Moscow is obliged to do something for him:

(29) Российский гражданин преступления не совершил, и Москва обязана выступить в его защиту.
[Russian citizen-NOM crime-GEN not committed, and Moscow-NOM obliged-NOM act for his defense-ACC.]
The Russian citizen has not committed any crime, and Moscow is obliged to act in his defense.

The next example illustrates the use of Ha in this domain:

(30) Некоторые маньяки не переносят чужого совершенства и действуют на его истребление.
[Certain maniacs-NOM not endure strange perfection-GEN and act for its destruction-ACC.]
Certain maniacs cannot endure others' perfection and work to destroy it.

Perhaps the most common use of Ha to express the purposeful act of answering a question. In the B ombem Ha+ ACC [in answer-ACC to+ ACC] in answer to construction, both Ha and B act in mis domain.

The use of 3a can mean 'for' in the sense of 'in support of, as when we ask for a vote by saying кто за, а кто против? [who-NOM for and who-NOM against?] 'who's in favor and who's opposed?', where за implies наш план, нашего президента [our plan-ACC, president-ACC) 'our plan, our president, etc. One can also express other emotional or moral relationships in mis way, as in feeling shame for, on account of something or someone:

(31) Мне стыдно за российское оружие!
[Me-DAT shameful for Russian weaponry-ACC!]
I'm ashamed of Russian weaponry!

Very frequently, however, 3a inspires the concept of exchange, getting this for that, fighting for something, being punished for something, or paying for something. We have already seen 3a play this role in expressing transactions when we looked at the spatial destinations above.

(32) Журналисты заплатили штраф за незаконное пребывание в пограничной полосе.

[Journalists-NOM paid fine-ACC for illegal stay-ACC in border zone-LOC.]

The journalists paid a fine for staying illegally in the border zone.

When the preposition под is used in the domain of purpose, it means 'for use as', and involves designing or redesigning something to serve a given function, as in this example:

(33) Однако после революции церковь переделали под крематорий. [However after revolution-GEN church-ACC remade under crematorium-ACC.]

However after the revolution they remodeled the church to serve as a crematorium.

The use of the preposition про is also relatively restricted in the domain of purpose. It is part of the fixed phrase сохранить про чёрный день [save for black day-ACC] 'save for a rainy day' and often occurs in the negative with the pronoun нас 'us', as in this example:

(34) Эти лакомства — не про нас. [These delicacies-NOM — not for us-ACC.] These delicacies aren't for us.

#### 2.0 ACCUSATIVE: A DIMENSION

As was stated at the outset, the accusative case is a relatively fluid concept. There is no clear boundary between ACCUSATIVE: A DESTINATION and ACCUSATIVE: A DIMENSION. There is a tendency, however, for the item marked by ACCUSATIVE: A DIMENSION to take on dimensions of its own, rather than being treated like an unanalyzed, unidimensional point, as is the case with ACCUSATIVE: A DESTINATION. The dimensions we will examine have a wide range of quantitative and qualitative measures, such as length, duration, size, capacity, cost, similarity, and other features and characteristics. The hallmark of the ACCUSATIVE: A DIMENSION is that the action of the verb extends over some dimension. The relevant dimensions invoked by ACCUSATIVE: A DIMENSION can be grouped as follows: distance

35

and duration, size and capacity, comparison, and perfomance of activities. Each grouping will be examined in turn below.

# 2.1 ACCUSATIVE: A DIMENSION in the domains of distance and

There is a Russian proverb that nicely illustrates the distance and duration uses of ACCUSATIVE: A DIMENSION:

(35) Жизнь прожить не поле перейти. [Life-ACC live-through not field-ACC walk-across.] Living through life isn't like walking across afield/Life's no bed of roses.

Here life is understood as a stretch of time with a beginning and an end (and punctuated by trials and tribulations), and living is an activity that stretches all along this time period. The field is a bounded space, and walking extends along the distance from one edge of it to the other. Both the life and the field act in this way as dimensions for activities guided by their dimensions. Although examples of distance are by no means rare, examples of duration are far more common, and can be expressed both without prepositions and with them (B, 3a, Ha, and no). Sometimes the duration is made up of small discontinuous pieces of time, usually indicated by the use of words like каждый 'every' and раз 'time', as in говорить сто раз [say hundred-ACC times-GEN] 'say a hundred times', and as in this example:

(36) Если ты любишь меня, тогда зачем мы каждый день расстаёмся? [If you-NOM love me-ACC, then why we-NOM every day-ACC break-up?] If you love me, then why do we separate every day?

With the preposition B, duration is usually expressed in terms of время/времена 'time (s)' от годы 'years', as in the following example:

(37) В те годы всем не хватало наличных денег. [In those years-ACC all-DAT not sufficed available money-GEN.] In those years everyone had a shortage of available money.

Probably the most common use of B+ ACCUSATIVE: A DESTINATION in the domain of time is with the. word pas 'time' to express frequency, as in pas в неделю [time-NOM in week-ACC] 'once a week', три раза в месяц [three times-NOM in month-ACC] 'three times a month'.

Like B, Ha can also identify a duration, specifically one during which something is done, or how long the results should last. This motivates the use of Ha illustrated in mis example:

Врачи настаивают на скорейшем уходе в отпуск не менее чем на тридиать дней.

[Doctors-NOM insist on fastest departure-LOC in vacation-ACC not less than lasting thirty days-ACC.]

The doctors insist that he immediately take a vacation lasting at least thirty days.

In the domain of distance and duration the preposition 3a means 'during, in the course of, as in this example:

За этот месяц никого в нашем доме не хоронили. [During that month-ACC no one-ACC in our house-LOC not buried. During that month no one in our house was buried.

The meaning of no in this domain roughly corresponds to English through:

С января по май вы будете в олимпийской форме. [From January-GEN through May-ACC you-NOM will-be in Olympic form-LOC.] From January through May you will be in Olympic form.

## 2.2 ACCUSATIVE: A DIMENSION in the domain of size and capacity

A very common use of ACCUSATIVE: A DIMENSION deals with financial rather than physical dimensions, here the cost of an item is presented in the accusative with no preposition. This meaning of the accusative is most frequently associated with the verb стоить 'cost', although, as this example illustrates, other verbs can occasionally serve this purpose:

Обычно перевыпуск карточки стоит пятьдесят долларов, сервисная плата составляет сто пятьдесят долларов. [Usually reissue-NOM card-GEN costs fifty-ACC dollars, service fee-NOM comes-to hundred fifty-ACC dollars-GEN.] Usually the reissue of a card costs fifty dollars, and the service fee comes to one hundred and fifty dollars.

In the domain of size and capacity, some feature of an object is often measured against a standardized scale (often units of weight and measure) or against another object or objects. This use is usually associated with a preposition (B is most frequent, Ha, and no are possible, and o is rather rare), followed by the ACCUSATIVE: A DIMENSION marking the scale, units, or object along which size or capacity are measured. Here is a typical example of the use of B in the domain of size and capacity.

(42) Один из слонов — трёхлетний Раджа весом в 850 килограммов — воспользовался прогулкой, чтобы заглянуть в посудную лавку. [One-NOM of elephants-GEN - three-year-old Raja-NOM weight-INST in 850-ACC kilograms-GEN — took-advantage outing-INST, to take-peek to china shop-ACC.]
One of the elephants — three-year-old Raja, weighing 850 kilograms — took advantage of the outing to take a peek into a china shop.

The preposition B can also be used to express the amount by which things differ:

(43) Старый курс от нового отличается ровно в тысячу раз. [Old rate-NOM from new-GEN differs exactly in thousand-ACC times-GEN.] The old rate is exactly a thousand times more than the new one.

In this domain, Ha can express how big an item is in phrases like:

(44) TEATP HA NAMECOM MECT [theater-NOM on five-hundred-ACC places-GEN]

aflve-hundred-sesit theater

Like B, Ha can measure the amount by which it differs from some other object, usually in association with a comparative adjective or a verb indicating exceeding or failing to reach some mark:

(45) Я опоздала на пятнадцать минут.
 [I-NOM got-late on fifteen-ACC minutes-GEN.
 I was fifteen minutes late.

The use of the preposition o in the domain of size and capacity is rare and archaic, this example comes from Svedova et al. 1982 (no use of o with Text Processing and Cognitive Technologies, № 4, 2000

ACCUSATIVE: A DIMENSION appeared in the database of over 1200 example sentences that this analysis is based upon):

(46) крыльцо о три ступеньки [porch-NOM with three steps-ACC] a porch with just three little steps

In this domain the preposition no refers to a distribution such that each of a series of items is assigned the same amount. In the following example the value of two rubles is assigned to each kilo of mimosa:

(47) В Сочи мимозу можно продать по два рубля за один килограмм. [In Sochi-LOC mimosa-ACC possible sell along two rubles-ACC for one kilogram-ACC.]

In Sochi you can sell mimosa for two rubles a kilo.

## 2.3 ACCUSATIVE: A DIMENSION in the domain of comparison

The measurement of one thing against another in and of itself implies a comparison of the thing measured with some standard. This motivates the extension of ACCUSATIVE: A DIMENSION to the domain of comparison. The use of B in this domain is rather marginal, but one does come across examples such as:

(48) бумага в клеточку [paper-NOM like square-ACC] graph paper

In comparing objects according to their various characteristics to determine whether they are similar to each other, the accusative object is used as a standard, along which another object is measured in a metaphorical sense. The most common example of this use of ACCUSATIVE: A DIMENSION is the phrase похож на 'resembling':

(49) Хотите знать, на кого вы похожи? На разбитую параличом гориллу, которую держат в зоопарке из жалости.

[Want know, to whom-ACC you-NOM resemble? To stricken-ACC paralysis-INST gorilla-ACC, which-ACC keep in zoo-LOC from pity-GEN.] Do you want to know what you look like? Like a paralyzed gorilla that they keep in a zoo out of pity.

With the preposition nod, comparison has the connotation of imitation, as in this bit of conversation from a beauty parlor, where a woman is being offered a haircut 'like a boy's'.

(50) Согласно вашему лицу, предлагаю под мальчика — не возражаете?
 [In-harmony your face-DAT, suggest under boy-ACC — not object?]
 To suit your face, I suggest giving you a boy's haircut — is that ok with you?

A specialized type of comparison is approximation, and this use has its own preposition: c 'about the size/length of, approximately', as in this example:

(51) Наш попугай был ростом с курицу.
[Our parrot-NOM was size-INST approximately hen-ACC.]
Our parrot was about the size of a hen.

## 2.4 ACCUSATIVE: A DIMENSION in the domain of action

Measurement and comparison are not the only activities that can extend along the dimensions of an object marked as ACCUSATIVE: A DIMENSION. Almost any kind of activity can can extend along the dimensions of an object marked as ACCUSATIVE: A DIMENSION, being guided or limited by the dimensions of the accusative object. A common use of this meaning is in the phrase играть в [play to] which is used when we talk about playing games and sports. Playing in itself is a relatively loosely defined activity. A game or sport, however, brings all kinds of concrete parameters with it: rules, implements used, techniques, etc. In this sense the game or sport provides dimensions that define the playing activity:

(52) На новом стадионе можно играть в регби, бейсбол, софтбол... [At new stadium-LOC possible play in rugby-ACC, baseball-ACC, softball-ACC...]

At the new stadium one can play rugby, baseball, softball...

Ha is usually the place where something is or happens. In this example being beautiful is something that extends along the face, but being fat extends along the figure:

(53) Она была красивая на лицо, но толстая на фигуру. [She-NOM was beautiful to face-ACC, but fat to figure-ACC.] She had a beautiful face, but a fat figure. A more abstract, but very common example is the phrase Ha Moŭ (meoŭ, eë, ezo...) взгляд [to my (your, her, his...) view-ACC] 'in my (your, her, his...) view/opinion'. The proposition (whatever it is that the person believes) extends along that person's view; in other words, it is true for the domain of that person's opinion.

The preposition под indicates an activity that accompanies another one, most commonly involving music, as in:

(54) танцевать под музыку [dance under music-ACC] dance to the music

The preposition npo designates dimensions for activities like thinking, talking, and writing. The location of these cognitive and communicative activities is their topic, literally the thing that you think, talk, or write *about*.

(55) Мы всё знаем друг про *друга*. [We-NOM all-ACC know other-NOM for other-ACC.] We know everything about *each other*.

Ckbo3b refers to something that has dimensions, 'through' which something else (usually light or sound or the perception of something seen or heard) passes, often with some difficulty or alteration, as we see in this example:

(56) Заразительная поэтика великой книги заставляет смотреть сквозь её оптику на многие обыденные вещи.
[Infectious poetics-NOM great book-GEN force look through its lens-ACC on many ordinary things-ACC.]
This great book's captivating poetry forces us to look at a multitude of everyday things through its lens.

Yepe3 likewise identifies a dimension through which something passes. This example describes a money-laundering scheme where funds are being cycled through a firm in order to make it look like they have a legitimate origin. The firm is the dimension for *this* cycling activity:

(57) Они прокручивали через фирму сотни тысяч долларов. [They-NOM cycled through firm-ACC hundreds-ACC thousands-GEN dollars-GEN.]

They cycled hundreds of thousands of dollars through the firm.

## 3.0 ACCUSATIVE: AN ENDPOINT

ACCUSATIVE: AN ENDPOINT is very similar to the ACCUSATIVE: A DIMENSION, except that it focuses just on one part of the accusative object, namely the one furthest away. The accusative object is thus reduced to its logical endpoint. ACCUSATIVE: AN ENDPOINT functions in only two domains, that of space and time; however, space and time actually function rather differently from each other. If a person is imagined standing on a certain spot at a certain time, space stretches out from that spot in all directions equally. Since all directions are equal, they are all the same in some sense. In other words, if some object is one meter away, that fact is essentially the same regardless of the direction in which the object lies. Time is different. It stretches away from a given point in exactly two directions, and those directions are distinct from each other. One goes forward, into the future. And one goes backward, into the past. If an event is an hour away, it does matter which direction it lies in. The event will either happen in an hour, or it will have happened an hour ago. Neither Russian nor English have a way to say that an event is an hour away without indicating that it is future or past. In terms of space, the ACCUSATIVE: AN ENDPOINT locates something as being a certain distance away (at the end of that distance), whereas in terms of time this meaning locates things as happening later, at the end of a certain period, or has having happened before, at or prior to the beginning of a certain period. In this way Russian shows a parallelism between the two concepts expressed in English as I'll see him in a week and I saw him a week ago. In either case one has to reach one week away from the present time to get to the point where the action is.

3.1 ACCUSATIVE: AN ENDPOINT in the domain of space

In the domain of space, there are three prepositions that identify endpoints: B, 3a, and 4epe3. B is relatively infrequently used to locate items at a given distance, but here is one example:

(58) В один скачок он очутился у двери. [In one leap-ACC he-NOM found-self by door-GEN.]
In one leap he was at the door.

When за 'away' is used in the domain of space, it usually occurs in conjunction with от 'from' or до 'to' (which also means 'from' in this context), as in this example:

(59) За несколько километров до города автобус сорвался с обрыва в реку.

[Beyond several-ACC kilometers-GEN to city-GEN bus-NOM fell precipice-GEN in river-ACC.]

Several kilometers away from the city the bus fell off the precipice into the river.

In its most simple manifestation, vepes 'across' locates something at the opposite edge of an item as in:

(60) Клуб - через дорогу.
[club-NOM -- across street-ACC]
The club is across the street.

Usually, however, vepe3 refers to something that is repeated in a series, such that you wind up skipping over every other object, as in the common teacher's instruction писать vepe3 *cmpouky* [write away line-ACC] 'skip *lines/write*, *double-spaced'*, which could be literally interpreted as 'go one line away and then write, and then repeat that pattern'.

## 3.2 ACCUSATIVE: AN ENDPOINT in the domain of time

As we saw above, time differs in important ways from space. There are furthermore some special peculiarities about the way in which Russian uses ACCUSATIVE: AN ENDPOINT in time expressions. In addition to the usual use of prepositions (B, 3a, 4epe3) followed by the accusative case, we also have postpositions. This table and representative examples give an overview of these uses:

Table 2. ACCUSATIVE: AN ENDPOINT in time expressions

Time running forward:	in, after, later	
в одну неделю	[to one week-ACC]	in/ by the end of a week
за одну неделю	[to one week-ACC]	in/ by the end of a week
Через (одну) неделю	[across (one) week-ACC]	after a week, a week later; every week
Одну неделю погодя	[one week-ACC later]	one week later
Одну неделю после	[one week-ACC after that- GEN]	one week after that
того Одну неделю спустя	[one week-ACC later]	one week later
Time running backward: Одну неделю до того/перед тем	ago, before [one week-ACC until that- GEN/before that- INST]	one week before that
за <i>одну неделю</i> до- того/перед тем	[one week-ACC until that GEN/before that-INST]	one week before that
Одну неделю назад	[one week-ACC ago]	one week ago

(61) Наш дирижёр родился в семье музыкантов и уже в пять лет научился играть на фортепиано.

[Our conductor-NOM was-bom in family-LOC musicians-GEN and already to five-ACC years-GEN learned play on piano-LOC.]

Our conductor was born in a family of musicians and already at the age of five he learned to play the piano.

When 3a is used with an accusative time expression, if the sentence refers to a completed action (usually with a perfective verb), there is focus on the endpoint, whereas if a process or state is involved, then we have a duration (ACCUSATIVE: A DIMENSION). Here is an example of 3a expressing ACCUSATIVE: AN ENDPOINT:

(62) За месяц Дима превратился в обыкновенного человека. [To month-ACC Dima-NOM transformed to ordinary person-ACC. By the end of a month Dima had become an ordinary person.

Hepes typically indicates a time period that elapses before something else happens:

(63) Он поставил им ультиматум: сдаться через неделю. [He-NOM set them-DAT ultimatum-ACC: give-up across week-ACC.] He set an ultimatum for them: give up by the end of a week.

When the context calls for periodic repetition (often by means of каждый 'every'), then we have the temporal equivalent of what we saw with через and intervals of space: things that happen at regular intervals of time:

(64) Через каждую неделю — медицинский осмотр. [Across every week-ACC — medical examination-NOM.] There's a medical examination every week.

The postposition назад is probably the most common Russian equivalent for 'ago'. Here is an example:

(65) Неделю назад я слышала по радио передачу о счастье. [Week-ACC ago I-NOM heard along radio-DAT program-ACC about happiness-LOC.]

A week ago I heard a program on the radio about happiness.

#### 4.0 Epilog

Despite their number and complexity, all the uses of the Russian accusative case can be shown to fit together in a network of related and in some instances overlapping meanings, one that even accounts for idiomatic uses. In Text Processing and Cognitive Technologies, No 4, 2000

addition to demonstrating the descriptive and theoretical power of the radial category and metaphorical mapping, this analysis reveals significant facts about the way in which information is organized in Russian. Directed motion occupies a prominent place in the linguistic imagination of Russian. Just looking at something constitutes a visual voyage. Human understanding of time is patterned after how we perceive space, motivating the conventional conclusion in Russian that if a journey has a spatial destination, then an event has a temporal destination as well. Time is clearly conceived of in Russian as a unidimensional line stretching away from us in two directions. Change to a new state is comprehended as movement to a new location. Going to a destination behind an item can be interpreted as catching hold, replacing, or exceeding that item. Feeling nauseated or shaken up are not activities people engage in; these are things that just happen to people without any apparent agent. The accusative case puts all these ideas into a single coherent package.

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