

2009

Do Russians and Americans View Space in the Same Way?

Evgeny Makarov
Moscow State Linguistic University

Follow this and additional works at: <http://digitalcommons.bucknell.edu/chr>

Recommended Citation

Makarov, Evgeny (2009) "Do Russians and Americans View Space in the Same Way?," *Comparative Humanities Review*: Vol. 3, Article 7.

Available at: <http://digitalcommons.bucknell.edu/chr/vol3/iss1/7>

This Article is brought to you for free and open access by Bucknell Digital Commons. It has been accepted for inclusion in Comparative Humanities Review by an authorized administrator of Bucknell Digital Commons. For more information, please contact dcadmin@bucknell.edu.

Do Russians and Americans View Space in the Same Way?

*Evgeny Makarov
Moscow State Linguistic University*

*We live in civilization.
There is no breaking away from it.
Here everything is in language
and through language.
- Alexander Zinoviev *The Yawning Heights**

There is a fundamental truth in this passage; human language is, indeed, a highly complex system which embraces the world in a way nothing else does. No society would be possible without language and any social activity is linguistic in its essence. Thus it is in language that the objective answers to the questions facing the humanities are to be looked for. If everything is in language, success here depends just on how keen we are on finding those answers.

Languages are mediators of ideas. They mediate ideas differently because their categories do not fully coincide. It seems, however, that all languages are equally suitable for

communication, meaning that, if a conceptual category does not have a linguistic correlate, there is a more general linguistic category to cover this function and, if some category does not exist, there is no need for it to exist because its functions are performed by other categories. Thus, Russian, unlike English, has no articles but the functions the article performs in English are performed in Russian by word order or by lexical means.

This paper looks at how the range of conceptual categories of space is reflected in the categories Russian and English operate. It is important to make a distinction between *coordinate* and *categorical spatial relations*. The former include distance, speed of motion and size, and are mostly processed by the right hemisphere. Their representations involve numerical specifications rather than linguistic categorization. The latter, on the contrary, are mostly processed by the left hemisphere, require to be categorized in languages and are the exclusive focus of this paper.

To locate a target object, called the *figure*, reference to another object, called the *ground*, needs to be established. Two basic kinds of relations between the figure and ground are possible: *contiguity* and *displacement*. When the figure and ground are contiguous a *topological* relation is established. Topological relations are most often coded in language by means of spatial prepositions, *at* being the most obvious example, whose meaning is any kind of contiguity. Both Russian and English can specify all the major types of contiguity. Thus, *superadjacency* (on the horizontal plane) and *attachment* (on the vertical plane) are prototypically coded by *на* in Russian and *on* in English; *containment* is coded by *в* and *in*, respectively; *penetration* is coded by *через* and *сквозь* in Russian as opposed to *through* in English; *subadjacency* is coded by *под* and *under*. However, the difference lies in the fact that specification is always required in Russian whereas in English it is often enough to gloss contiguity by *at*.

It is also important to remark on the following: Russian favors prepositions prototypically denoting superadjacency or attachment while English favors containment prepositions. This is a manifestation of the difference in the conceptual coding of space between Russian and English. In an earlier paper we argued that, unlike Russian, English operates the conceptual metaphor

MOVEMENT IN SPACE IS MANIPULATION OF SOLID OBJECTS, where space was for the first time described as a *target* metaphorical domain. Metaphorical objects have metaphorical borders, delimiting a kind of “personal space” which alien objects must not enter. Since borders surround (metaphorically) spaces, the latter are perceived as containers. It is exactly for this reason that English tends to represent contiguous spaces as *closed*, even when they have no physical borders. Hence the English equivalents for the Russian *на улице, на дереве, на картине* are *in the street, in the tree, in the picture*. In Russian, a reverse tendency can be observed: contiguous spaces are represented as *open*, even when they do have physical borders. Hence the Russian equivalents for the English *in the post office, in the linguistics department, in the railway station* are *на почте, на кафедре лингвистики, на вокзале*.

Since topological relations are very abstract they seem likely to be cross-linguistically universal. However, considerable diversity in the kinds of topological relations has been revealed in recent studies. Thus, it has been pointed out that the Mayan language Tzeltal features a closed class of dispositional adjectives that provide for far more detailed specifications than the prepositions mentioned above; Makah has suffixes encoding locations such as “at the rear of a house,” “at the base of an upright object,” “at the head of a canoe”: Karuk has an unlikely suffix – *vara* meaning “in through a tubular space”. As these examples show, attention has generally been turned toward exotic languages and away from similar phenomena observed in languages like English and Russian. For example, in English there are a number of prepositions starting with the once-prefix *a-* denoting extremely specific locations and positions: *aboard* (“at a ship”, now extended to “at a public transportation means”, such as a plane, bus or train, but not a car), *astride* (“with one’s legs on either side of”), *atop* (“at the top of”), to name but a few.

When the figure and ground are displaced or disproportionate it is not enough to establish a topological relation. A *projective* relation is needed, i.e., an indication of the direction from the ground, in which to search for the figure. To specify a direction, we need a coordinate system, or *frame of reference*, and it has been established that languages use just three types of

reference frames. When the figure and ground are disproportionate, the latter has to be partitioned and an axis has to be projected from its center to a designated part, as in *The boy is in the back of the car*. This kind of coordinate system is called the *intrinsic frame of reference* because it relies on reference to the inherent or intrinsic parts of the ground. The intrinsic frame is cross-linguistically by far the most widespread of coordinate systems.

In both English and Russian part assignment within the intrinsic frame uses the canonical orientation of the artifact, determined by *the leading facet in typical motion* (*the front of a truck – передняя часть грузовика*), *the facet with a perceptual apparatus* (*the front of a camera – передняя часть камеры*), *the characteristic orientation of the object to the user* (*the front of a blackboard – передняя часть доски*), or *of the user to the object* (*the front of a desk – передняя часть стола*). If an artifact has no canonical orientation, part assignment occurs within the relative frame of reference.

It is common for both English and Russian to describe locations within the intrinsic frame of reference in terms of human body parts, employing the conceptual metaphor GROUND IS BODY; GROUND PARTS ARE BODY PARTS. This kind of representation is somewhat more common in English, but the main difference between the two languages here is in the *choice* of body parts. Consider, for instance, the following expressions: *the eye of a hurricane* (*needle, potato*), *the nose of an airplane*, *the mouth of a cave*, *the head of a nail*, *the neck of a guitar*, *the arms of a river*, *the hands of a clock*, *the foot of a mountain*, as opposed to *шляпка звоздя*, *рукава реки*, *хвост поезда*, *подножие горы*. As it follows from the analysis of a number of instances, English favors facial or upper parts of the body, which are *inward* and focus on the personality, whereas Russian tends to choose lower parts or elements of apparel, including clothes and accessories, which can be viewed as extensions of the body but are *outward* rather than inward.

When the figure and ground are displaced, the *relative* and *absolute frames of reference* are used. Unlike the binary intrinsic frame, requiring only figure and ground to operate, they are ternary (except when cardinal directions are used): they also require information about the spatial disposition of a third participant

outside the figure/ground dyad, namely the viewpoint. The relative frame of reference projects the bodily axes of the viewer, front and back, left and right, onto the ground to specify the figure's location, as in *The boy is to the left of the house* (i.e., on the speaker's left). The absolute frame of reference, unlike the two other frames, uses abstract, antecedently fixed bearings such as the *cardinal directions* (north – south/east – west) (the only possibility for Indo-European languages), *fall of land* (uphill – downhill/across) (Tzeltal), *coastline* (landward – seaward/parallel to the coast), *river flow* (upriver – downriver/away from – towards the river). Absolute systems of reference are the only type to sustain full logical inferences under different viewpoints but the costs of absolute computation are higher because it requires a significant cognitive overhead.

Like most other Indo-European languages, English and Russian use all three mentioned frames and seem to have a preference for the relative frame unless there are specific conditions provoking the use of either the intrinsic or absolute frame. However, the question would remain if their frequencies of occurrence are the same in English and Russian until we carried out a series of experiments to answer it. It has emerged that English (at least, its American variety) relies on the absolute frame far more heavily than Russian by often preferring the cardinal directions. Here is a sample of how a spatial scene is coded in American English in absolute terms:

I leave the house and walk *north* about one block to Speedway Boulevard. Then I cross Speedway and walk about 100 feet to the bus stop. I take the bus *west* about 6 miles which takes about 25 minutes. I get off the bus at Speedway Boulevard and Cherry Avenue by the university. Then I walk *west* one block and then cross Speedway once again. Then I walk two blocks *south* and turn on 1st. I walk *west* again one block and then go my building.

Our Russian respondents described similar scenes by using the relative terms *справа* and *слева* to explain position and *направо* and *налево* to explain direction. Both Russian and American descriptions gave distances and times, but Russian descriptions also referred to additional grounds. One gets the impression that Russian speakers do not merely pursue the aim of stating directions, but also describe the *environment*, providing

details that would seem irrelevant to an American speaker. Here is an example:

Я обхожу свой дом, при этом он остается *слева*; выхожу из метро *по ходу поезда*; после выхода из метро иду по направлению к пешеходному переходу; сначала по *левой* стороне будет невысокое здание белого цвета, потом маленькие магазинчики; *слева* будет небольшой ресторан на первом этаже старого жилого дома; здание *справа* от меня, в глубине.

This linguistic difference cannot but have strong cognitive consequences. English speakers create a fairly accurate mental map based on cardinal directions. This requires them to calculate such directions whenever they go to an unknown area. For Russian speakers, objects of the environment and their mutual dispositions are more important because memorizing them allows imbedding themselves into that environment and describing it in relative terms.

A question arises: what caused American, but not Russian, speakers to use cardinal directions so extensively? Although we do not have a ready answer, we can assume that cardinal directions became important in English when England became *a maritime nation*. A marine environment gives one nothing to rely upon but the compass and environmental clues such as the sun.

The ability for absolute orientation was inherited by the USA. A possible explanation of the tenacity of cardinal point orientation in the USA may lie in its history of westward expansion, which required Americans to constantly monitor and register directions. The rectangular state division in the USA may be a variety of a mnemonic technique that facilitated orientation in the open, unbounded space that surrounded American colonists. Extra evidence of this comes from the fact that cardinal point orientation has been shown to be more common in the West and Midwest than in the thirteen original states.

The rectangular or square structure is no less common for American towns and villages, i.e., for rural America, where vast territories had to be clearly and definitely demarcated. It is not to be wondered at, then, that the compass directions of the main streets of cities and towns are known to virtually all Americans from the map. Other directions can be calculated from a primary

direction, the task made easier by the right angles at the intersections. Many names of American streets and highways also contain cardinal direction specifications, so that the average U.S. citizen has a striking command of the ‘practical’ geography of their immediate and outer surroundings, but the same average American will be noted for an astonishing inability to learn foreign geography, where names rather than directions have to be memorized.

A final point to be made here is that we have concentrated on the frames of reference on the horizontal plane for the simple reason that they usually coincide along the vertical dimension. If a flag waves above a building, it does so within all three frames: it is located within the region that radiates from the top of the building (intrinsic frame); it is higher than the building from the observer’s point of view (relative frame); and it is higher than the building along the vertical axis defined by gravity (absolute frame).

Apart from topological and projective relations, there is a special kind of spatial reference called *spatial deixis*. Deixis is generally understood in linguistics and pragmatics as reference by means of an expression whose interpretation is relative to the extralinguistic context of the utterance (in the case of spatial deixis, the location of a participant in the speech event, typically the speaker). Spatial deictic expressions in English and Russian include *demonstrative pronouns* (this – that, these – those; этот – тот, эти – те), *deictic adverbs* (here – there; здесь/тут – там), and *deictic verbs of motion or transfer* (come – go, bring – take – fetch, прийти – уйти, принести – унести). These are binary divisions based on whether motion or transfer proceeds in the direction toward the speaker (*hither*) or away from the speaker (*thither*). In English, there exist two corresponding sets of verbs; in Russian, the distinction is coded by deictic prefixes при-, под(о)-, у-, от(о)- and some others added to deixis-neutral verb roots. Derivational prefixes of the kind can be added to virtually any verb root that can be interpreted as involving either a physical or metaphorical movement vis-à-vis the speaker in much the same way as prepositions or prepositional adverbs can be added to most English verbs to form phrasal verbs (cf. Он подошел поближе – He came up closer, Пришла зима – Winter has set in, Он ушел от нас/из жизни – He has passed away).

It is important to note that deictic references in English are far more rigidly defined by the speaker's position than in Russian. Consider the following example: two Americans are talking and, when they are about to say goodbye to each other one of them says, 'When you go home, please send me an email', meaning 'once you are back home'. If we tried to render this perfectly simple sentence into Russian we would get «Когда ты придешь/приедешь/вернешься домой, отправь мне email». English, therefore, does not allow the speaker to shift the deictic center to any point other than where they are physically located, whereas the Russian tendency to portray spatial scenes in fine detail we have mentioned earlier clearly prevails here as well. Here is another example to demonstrate this difference: a football commentator is giving a running commentary on a fast-moving game which is shown by a different camera every few seconds, and is referring to one of the players as 'this, no that, player', correcting himself once the view and the player's position on the screen in relation to the viewer change. This change would not find a manifestation in the speech of a Russian commentator and a correction of the kind would instead lead to ambiguity in interpretation (a plausible reading is that he now means a different player).

A final point we would like to make in regard to spatial representation in English and Russian concerns the way *motion proper* is described, a point almost entirely neglected in the existing literature. It stands to reason that both languages possess a few modal categories to specify the *manner of motion*, but they do it differently. It may be necessary, for example, to specify the *transportation means*, for which Russian has a whole set of specific verbs: *идти (нешком) – ехать – лететь – плыть*, etc., whereas English mostly uses just two verbs, *to go* and, interestingly, *to travel*, unless further specification is pragmatically relevant.

It may also be necessary to specify whether motion is unidirectional or omnidirectional and this distinction is manifested in most Russian verbs of motion through the category of the number of directions, as in *идти – ходить, ехать – ездить, плыть – плавать*, etc. These verbs have two fully independent conjugational paradigms. The verbs *идти, ехать, плыть*, etc.

denote unidirectional, purposeful motion, while the verbs *ходить*, *ездить*, *плавать*, etc. denote recurrent or habitual actions involving motion. Compare the following: Я иду в театр (сейчас, вечером, завтра). / I am going to the theater (now, tonight, tomorrow) (an action proceeding at the moment of speaking). Я (обычно, часто, иногда) хожу в театр. / I (usually, often, sometimes) go to the theater (a repeated action in the present). Now let us look at how these verbs are used with reference to past actions. Я шел в театр. / I was going to the theater (a background action in a narrative). Я ходил в театр (вчера, раньше). / I went/used to go to the theater (yesterday, before) (either an accomplished action in the past involving going to the theater and back, or an action repeated in the past but probably not any more). It follows from these examples that English does not feature the number of directions category but provides for this distinction by means of the more generally applied aspectual paradigms as well as lexically.

We have thus summed up some of our findings about how Russian and English represent space. We hope to have shown that they do not always do it in the same way and that the unearthed differences should have an impact on further linguistic and epistemological research, on teaching Russian or English as a second language, translation, interpreting, discourse analysis and many other applications.