

## RUSSIAN VERBS OF SPATIAL ORIENTATION *STAND, SIT, LIE*

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### 1. The problem

Conceptualization of spatial relations takes different forms in different languages, and certain cognitive spatial structures underlie the meaning of many linguistic expressions, both lexical and grammatical (Kravchenko 1996a). However, these underlying structures that often account for the functional features of such expressions, are not so obvious across languages, and it is sometimes rather difficult to relate the meaning of a particular expression to its function on the basis of common sense reasoning.

A good example are the Russian verbs *stoyat* 'stand', *sidet* 'sit', *lezhat* 'lie'<sup>1</sup>. On the one hand, their meaning is clearly that of spatial orientation, since their usage implies reference to the manner in which the object (prototypically, an adult human being) is oriented in space at the time of observation:

- (1) *Maria postoyala nemnogo, sela na divan i, nemnogo pogodya, legla*  
'Maria stood for a while, sat on the couch and, after some time, lay down'

On the other hand, these verbs may be described as basic existential predicates whose meaning is different from the verb *byt* 'be' in that they establish explicit reference to a 3-dimensional spatial grid by assigning to their subjects geometrical axes and characterizing their position in space relative to a certain point of reference (observer), as in (2):

- (2) a. *V ushchelye stoyal gustoi tuman*  
'A thick fog stood in the gorge'  
  
b. *Nad ushchelyem lezhal gustoi tuman*  
'A thick fog lay over the gorge'

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<sup>1</sup> From now on only the English translations of these verbs will be used for convenience, since their lexical meaning is the same as in Russian. Examples will be given in Russian followed by English translations, with glosses provided when necessary.

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where the meaning of (2a) implies the observer in the same space, or “region” according to currently accepted terminology (Miller & Johnson-Laird 1976, Svorou 1994 *inter alia*), as the fog, and the meaning of (2b) implies the observer positioned above the fog, for example, at the top of the mountain.

However, it is not quite clear what accounts for the possibility of conceptual transfer in these examples, for although “fog” may be conceptualized as a concrete physical entity with more or less distinct, though fuzzy, boundaries, the imposition on this entity of a geometrical axis (“vertical” or “horizontal”) seems unmotivated. In the following example, (3a) is very similar to (2a), but (3b), unlike (2b), is already semantically anomalous to a degree that makes it simply ungrammatical:

- (3) a. *Pogoda v doline stoyala khoroshaya*  
 Weather in the valley stand TNS SG F good  
 ‘The weather in the valley was good’
- b. \**Pogoda v doline lezhala khoroshaya*  
 Weather in the valley lie TNS SG F good  
 ‘The weather in the valley was good’

Weather is not something that can be characterized as a physical object, therefore it cannot have a geometrical axis. Nor can it be viewed as a region with a certain spatial orientation relative to the position of the observer as in (2b). Data of this kind make the Russian verbs of spatial orientation seem vague in meaning and inconsistent in function. As a result, dictionaries fail to provide definitive information sufficient for the adequate understanding of both.

At first sight, the trivial meaning of these verbs appears to be rather transparent — at least, in the anthropomorphic domain of their usage:

- (4) STAND, *v* ‘be in a vertical position’  
 SIT, *v* ‘be in a position when the body’s lower part rests on sth and the legs are bent or stretched out’  
 LIE, *v* ‘be in a horizontal position on a surface’.

Yet definitions such as the above fail to adequately explicate the concepts these verbs stand to represent. Spatial orientation of objects of the same size and shape can be described by either one of these verbs, but there are certain seemingly unpredictable constraints on their usage. The first obvious difference is that only one of these verbs, *sit*, is explicitly anthropomorphic because of direct reference to a structural part of human body (and, by extension, to any living creature with legs). Humans, as well as many other animals, can either *stand*, *sit* or *lie*, whereas inanimate objects very often can *stand* or *lie* but, naturally, cannot *sit*:

- (5) a. *Vdol’ dorogi stoyali telegrafnyie stolby*  
 Along the road stand TNS Pl. telegraph poles  
 ‘The road was lined with telegraph poles’

- b. *Vdol' dorogi lezhali telegrafnyie stolby*  
 Along the road lie TNS PL telegraph poles  
 'Along the road lay telegraph poles'
- c. \* *Vdol' dorogi sideli telegrafnyie stolby*  
 Along the road sit TNS PL telegraph poles  
 'Telegraph poles sat along the road'

But, as is often the case in natural language, the picture is far from being simple. On the one hand, certain inanimate objects (including plant life) can *sit*, though they do not have legs that can be bent or stretched out, cf.:

- (6) a. *Griby sideli plotnymi semeikami po vsei polyane*  
 'Mushrooms sat in tight little families all over the glade'
- b. *Krysha na izbe sidela krivo*  
 'The roof on the hut sat askew'
- c. *V pechi sidel bol'shoi pirog s myasom*  
 In the oven sit TNS SG M big pie with meat  
 'A big meat-pie was sitting in the oven'

On the other hand, many small animals and birds (such as mice, squirrels, hedgehogs, pigeons, crows, swifts, sparrows, and the like) and all insects cannot *stand*, they always *sit*. A sentence such as (7a) is clearly anomalous, though (7b) is not:

- (7) a. \* *Na stole stoyala mysh'*  
 A mouse stood/was standing on the table
- b. *Na stole sidela mysh'*  
 'A mouse sat/was sitting on the table'

However, (7a) allows one possible interpretation which is not anomalous when *mouse* refers to a figurine and not to a live animal. And yet, to a native speaker of Russian such a sentence would, typically, appear anomalous anyway, probably because figurines of mice used for decorative purposes are not part of his cultural experiences.

A cat can both *sit* and *lie*, but a sentence such as (8) would be interpreted in the sense "the mouse was dead":

- (8) *Na stole lezhala mysh'*  
 'A mouse lay/was lying on the table'

A rooster can *sit* or *stand*, and a pigeon always *sits* and never *stands*. Examples of this sort could be provided ad infinitum.

To complicate the picture, objects of roughly the same size and shape display mysterious selectivity in combining with these verbs. For example, a brick put on a table

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will either *lie* or *stand* depending on horizontal or vertical alignment of its longitudinal axis, whereas a jewelry box of the same size and shape will *stand*, but not *lie*. Plates, saucers, skillets, etc. *stand* despite their imaginary vertical axis being the shortest of the three dimensions, whereas apples or tomatoes always *lie* regardless of their size. If, however, plates or skillets are said to *be lying*, then for a speaker of Russian it means, typically, that they are lying upside down. Unlike apples or tomatoes, a watermelon can both *lie* and *stand*, but in the latter case an additional meaning emerges: “the watermelon is placed on the table in order to be eaten”. When the verb *stand* is used with *apples* or any other fruit comparable in size, the meaning is “a vase with apples (fruit) standing on the table”.

## 2. Discussion

Examples of this kind show that the meanings of the Russian verbs *stand*, *sit*, *lie* reflect certain cognitive structures incorporated in respective concepts associated with these lexical items. These structures are the result of cognitively categorized experience of different objects of which one of the three spatial orientations can be predicated. The manner of categorization depends on how humans perceive different objects, which are classified on such criteria as size and shape comparability, mobility, the accepted norm (Herskovits 1986), as well as morphological structure in case of living creatures. As is pointed out by Bickerton (1990:53), “categories into which we divide nature are not in nature, they emerge solely through the interaction between the nature and ourselves”. Conceptualization of spatial relations and their subsequent grammaticalization have an experiential basis (Svorou 1988, Heine 1997).

Space as an existential domain cognized by man through sensory experiences is characterized by three dimensions. This property of space, in traditional science believed to be an objective phenomenon, is but a reflection of certain cognitive mechanisms that form the basis of human perception and cognition. As far as natural language goes, the world without man has no dimensions or, rather, the world itself exists only in the realm of ‘human dimension’.

It is a well established fact that the basic spatial concepts (UP-DOWN, FRONT-BACK, RIGHT-LEFT, CONTAINMENT) are anthropomorphic in many languages of the world (Svorou 1994), and the human body provides the most important model for expressing concepts of spatial orientation (Heine 1997:37ff). The primary dimension is UP-DOWN (“vertical”). This primacy is of a cognitive nature: for man, an upright (standing) position is a canonical situation (Clark 1973), and because, according to Protagoras, “man is the measure of all things”, object perception and conceptualization starts along the UP-DOWN vector. So, in order to use the appropriate verb of spatial orientation, the speaker must decide (a) whether the situation to be described is an instance of a canonical situation, (b) whether the object has, in a canonical situation, a vertical dimension (axis) as a categorial diagnostic feature.

When an object's longest dimension is perceptually salient, it is viewed as its geometrical axis, and depending on its alignment with the "vertical" or "horizontal" in a canonical situation, this object will either *stand* (e.g. a tree, a mountain) or *lie* (e.g. a tree, a mountain range, a road). However, for some objects the salient dimension that

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affects its linguistic categorization is not necessarily the longest one. For a fence, length as a physical parameter typically exceeds height in a canonical situation, yet a fence *stands*, and it *lies* only when it has been torn down. It means that the object "fence" is conceptualized as possessing an intrinsic vertical axis important for its "fenceness". The importance of this axis stems from the pragmatic function for which fences are designed as artifacts and from the manner in which man interacts with them.

The interaction pattern establishes what may be called "the canonical use orientation", or the norm, for most artifacts. For instance, containers designed for storage of flowing materials will typically have a vertical axis as a functionally salient feature accompanied by structural asymmetry ("top-bottom"), regardless of its relative length. This asymmetry is grounded in the container's function and its canonical orientation: in a prototypical case, the filling or emptying of a container involves the movement of material in space along the UP-DOWN vector. For this reason, a block-shaped jewelry box (which is a container) will *stand* even if its longitudinal axis is horizontally aligned, whereas a brick (which is not a container) similarly oriented will *lie*.

If the spatial orientation of a container, such as a plate, changes to the effect that it cannot be used functionally (for instance, it is turned upside down), the predicate *stand*, describing a canonical existential/interactional situation, is replaced by its counterpart *lie*. This seems to be a general pattern for standing objects, cf.:

(9) Canonical situation:

- a. *derevo stoyalo* (= "roslo")  
'the tree stood (= grew )'
- b. *dom stoyal* (= "byl v poryadke")  
'the house stood (= was in order )'
- c. *stul/velosiped stoyal* (= "funktsional'naya orientatsiya")  
'the chair/bike stood (= functional orientation )'

(10) Non-canonical situation:

- a. *derevo lezhalo* (= "upavsheye", "myortvoye")  
'the tree lay (= "fallen", "dead")'
- b. *dom lezhal [v ruinakh]* (= "razrushennyi")  
'the house lay [in ruins] (= "destroyed")'
- c. *stul/velosiped lezhal* (= "nefunktsional'naya orientatsiya")  
'the chair/bike lay (= "dysfunctional orientation")'

If we now look at such objects as apples or tomatoes, we'll see that they are also characterized by structural asymmetry (top-bottom parts), but this asymmetry is not imposed on them by man pragmatically, through a certain mode of interaction; rather, it

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reflects their spatial orientation as objects in a natural environment. Man's interaction with such objects does not require that they have a particular spatial orientation with regard to their intrinsic structural axis, for it usually does not matter from which side or end we begin to eat the fruit. From a human point of view, the sole purpose for existence of many different kinds of fruit and other edible objects is to be eaten. Therefore, although they are often characterized by structural asymmetry with respect to the vertical axis, it is not an existentially/interactionally relevant feature, and this is reflected in language. This fact explains, for example, why a brick-shaped loaf of bread will always *lie* on the table regardless of its relative spatial orientation.

The fact that the semantics of the verbs *stand*, *lie* incorporates certain cognitive structures reflecting man's interaction with the environment, accounts for different interpretations of expressions with these verbs. Thus, the interpretation of (11a) is "A watermelon was on the surface of the table", and nothing more (note that "horizontal position" as part of the verb's definition does not apply in case of a ball-shaped watermelon). If, however, *lay* is replaced by *stood*, as in (11b), the interpretation changes as an additional sense becomes obvious: "the watermelon is placed on the table in order to be eaten" (even if the watermelon has an oblong shape and its longitudinal axis is aligned horizontally):

- (11) a. *Na stole lezhal arbuz*  
'A watermelon lay on the table'
- b. *Na stole stoyal arbuz*  
'A watermelon stood on the table'

How does this additional sense arise if the meaning of the verb *stand* has nothing to do with the concept of "eating"?

The use of *stood* indicates that the object possesses certain spatio-orientational features which constitute the epistemic basis for the concept categorized in the verb's meaning. In our example, at least two such features can be identified: (a) salience of the pragmatically imposed vertical axis (a watermelon is typically eaten from up down, not from front to back or from right to left), and (b) relative immobility of the watermelon throughout the process of its consumption. Besides, the use of *stood* may be metonymic if the object is placed on a dish or in a vase:

- (12) *Na stole lezhali / stoyali frukty / tsvety / karandashi*  
'On the table lay /stood fruit /flowers / pencils'

The pragmatically imposed vertical axis as a cognitive factor in categorization of the existential/locative property of an object seems to be at work even in cases when the

object in question lacks the physical features (such as shape) necessary for identification of its vertical axis as a salient dimension. Cf.:

- (13) *V glazakh u neyo stoyali slyozy*  
*In eyes of her stand TNS PL tears*  
 ‘There were tears in her eyes’

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Tears in Russian can *stand*, but they cannot *sit* or *lie*. Moreover, although a sentence such as

- (14) ? *V glazakh u neyo byli slyozy*  
*In eyes of her be TNS PL tears*  
 ‘There were tears in her eyes’

appears to be grammatically correct, for a native speaker of Russian it sounds anomalous because, typically, *be* is not used with *tears* in such contexts. Why this constraint?

Apparently, in the Russian world view the important existential feature of tears is their ability to run down a face leaving a vertically oriented watery trace. If a drop of liquid I see in somebody’s eye is not yet running down, but I assume, nonetheless, that it is a tear, I use the verb *stand* as an epistemic indicator to support the validity of my assumption: “there is watery liquid in her eyes; I am sure it’s tears, but they are not running down her face which is what tears usually do; therefore they are in a state opposite to running, that is, in a state of standing”. Note that the interpretation of (13) involves implicit indication to an observer; this implication is the result of categorizing tears as standing objects.

It seems that when motion is an existential feature of an object, its momentary location on the trajectory path is categorized as halted motion, i.e., *standing*:

- (15) *Solntse stoyalo / \* bylo vysoko nad gorizontom*  
 ‘The sun stood / was high above the horizon’

By the same token, transient environmental states and phenomena such as weather, frost, cold, heat, drought, noise, silence, water (as in a pool), etc. *stand*, although they do not *sit* or *lie*:

- (16) a. *Stoyala zhara*  
 Stand TNS SG F heat  
 ‘It was hot’  
 b. *Stoyala zasukha*  
 Stand TNS SG F drought  
 ‘It was the time of drought’

The use of *stand* and *sit* with names of animate objects is also suggestive of how these objects are perceived and conceptualized in terms of spatial orientation. It follows from the definition of *sit* that in order to be used appropriately, it has to be predicated of

an object that has legs as a structural part with the function of support and locomotion. But this is not enough. To be categorized as a spatially oriented entity, the object's locomotive apparatus must meet two cognitive constraints: (i) it must be structurally obvious and identifiable in a trivial cognitive (perceptual) situation, (ii) it must be vertically oriented in a canonical situation. As can be seen, the first condition implies

size comparability between the locomotive apparatus and the rest of the body, otherwise it would not hold.

Thus, the legs of a squirrel meet the first condition, but not the second, and the legs of a mouse don't meet either; therefore, these animals *sit* in a canonical situation, and do not *stand*. An interesting and revealing piece of proof to this claim was inadvertently provided by my teenage daughter. As I was musing aloud over different possible examples with the verb *stand*, she overheard me saying something like

- (17) \* *U kalitki stoyal yozh*  
'A hedgehog stood by the gate'

Her spontaneous reaction was this:

- (18) "*Yozh ne stoit — u nego zhe nog ne vidno!*"  
'A hedgehog doesn't stand, for you can't see his legs!'

In a trivial cognitive situation, the locomotive apparatus of insects, though presumed, is not discernible, so they do not *stand*, but *sit*. Since *stand* cannot be assigned to names of small animals and insects as an existential predicate, its function is taken over by *sit*, with *lie* left as its counterpart. As a result, if a mouse or a roach *lies*, the implication is that it is dead.

But what about sitting mushrooms, roofs, and pies? Although a mushroom has a "leg", it can be neither bent nor stretched. Yet, in a canonical situation of interaction ("mushroom hunting") it is often not structurally obvious, concealed by the mushroom's cap and surrounding vegetation, thus bringing forth a clear-cut analogy with small animals.

A pie *sits* in the oven because it has been *sat* (*posazhen*) there, and the roof on the hut *sits* due to metaphorical extension "hat on a head" — > "roof on a house". Why a hat should *sit*, as well as do other clothing garments, such as jackets, pants, dresses, etc., is not quite clear, especially in view of the fact that, to appraise the consumer properties of the fabric of which such garments are made, one says "it *lies* well", and not "it *sits* well". Although I have not yet been able to discover the rationale behind this peculiarity in conceptualization of spatial (orientational) relations, I believe it is motivated and has to do with these objects' pragmatic function and their users' experience of these objects. Further query into this matter, particularly a contrastive cognitive analysis of orientation verbs in other languages, may yield revealing insights into the ways human mind works when it comes to conceptualization and categorization of spatial relations.

### 3. Conclusion



As I have tried to show, the semantics of Russian verbs of spatial orientation is far from being simple or trivial, as dictionaries would have us to believe. Spatial concepts categorized in these lexical items are complex, they are based on a number of cognitive structures that emerge from different modes of man's interaction with the environment.

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It is obvious that scientific knowledge of the world on which traditional semantic analysis is often based, and the resulting scientific/common sense taxonomy one can find in lexicographic definitions, cannot be a reliable basis for identifying conceptual structures that underlie the meaning and, consequently, account for the function of, linguistic expressions. Meaning is experiential in nature, and its structure reflects human cognitive experiences acquired in the course of interaction with the world. That is why, to use Maturana's (1970, 1978) famous thesis, "everything said is said by an observer to another observer". Semantics as the study of meaning cannot do without the study of cognitive (i. e. data processing) mechanisms and principles of conceptual categorization that evolve through interactive experiences, which is to say, *pragmatics underlies semantics* (Kravchenko 1996b). This understanding has been steadily growing in contemporary linguistic community over the past three decades, and there are signs that a new theoretical conception of language is emerging, tentatively labeled *the experiential theory of language*. This panel's discussions are undoubtedly a contribution to its molding.

#### Abbreviations:

TNS - tense/aspect marker  
SG - singular  
PL - plural  
F - feminine  
M - masculine

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