

Galina Kustova

## Semantic Networks and Semantic Processes: The Case of the Russian preposition NA

In the analysis of the system of derived meanings of a verb, we take into account: (1) the prototypical situation it expresses, i.e. its basic meaning, (2) the cognitive schema (pattern), i.e. the type of change denoted by this verb and opposed to the other types of changes, and (3) the semantic characteristics of arguments. The mechanism of semantic extension (metaphorical and non-metaphorical) is the following: the type of arguments are changed, i.e. the verb is applied to another situation with other arguments, but this new situation can be identified with the initial one from the point of view of the cognitive schema (pattern) or its fragments. Thus the basic and derived meanings can be regarded as different realizations (or modifications) of a general abstract scheme.

The same is true of prepositions. The meaning of a preposition in its basic use is related to the prototypical situation with its arguments and their semantic classes. And the system of derived meanings of the preposition corresponds to the cognitive schema (pattern).

The basic meaning of a preposition is always a spatial relation (cf. Brugman and Lakoff 1988, Cienki 1989, Herskovits 1982, 1986; Janda 1985; Vandeloise 1994). In this meaning prepositions are used with the verbs of movement and position in space. And their function in this context is to make more precise the direction of movement and the relative position of objects:

- (1) postavit' mashinu na stojanku/v garazh/vozle doma/pered domom/za zaborom/pod naves  
'park a car in a parking lot/in the garage/by the house/in front of the house/behind the fence/under the carport'

The primary goal of this cognitive analysis is to show how the basic spatial schema is extended to include non-spatial situations and metaphorical spaces on the basis of NA and an NP in the accusative case.

## THE BASIC OPPOSITIONS

### 1) NA + ACC vs. NA + LOC

NA takes the Accusative and Locative (the so-called prepositional case – *predlozhnyj padezh*). The meaning of the construction “NA + Acc (Loc)” results from the combination of the semantics of preposition and the semantics of the respective cases. The Accusative denotes transition from one point to another, and thus a change of state. The Locative denotes one state, i.e. the spatial position of the object:

- (2) Kto-to polozhil X na stol (Y) – X lezhit na stole.  
 ‘Smb. put X on the table (Y) – X is on the table.’  
 Kto-to nadel shljapu na golovu – Shljapa na golove.  
 ‘Smb. put a hat on one’s head – The hat is on his/her head)  
 X poshel na koncert – X byl na koncerte  
 ‘He went to the concert – He was at the concert.’  
 X sel na poezd – X prijekhal na poezde.  
 ‘He got on the train – He came on the train/by train.’

### 2) Another opposition – NA vs. V.

NA is used when the landmark is an open space, a surface, a plane, a top (upper part) or outward part (*vneshnjaja storona*). V is used with closed spaces, containers.

- (3) polozhit’ X na stol  
 ‘to put X on the table’  
 = X is outside, on the surface, X is visible

polozhit' X v stol/v korobku  
 'to put X into the drawer/box'  
 = X is inside, X is invisible

In these examples, X is the trajector and the table/box is the landmark.

The basic PARAMETERS of the PROTOTYPICAL SITUATION:

The basic parameters of a prototypical situation expressed by the preposition NA include (1) the initial state, (2) the distance between the point of departure and the destination (i.e., the Landmark), (3) the Landmark (Lm) – a surface, top (upper part), outward (external) part, (4) movement of the Trajector (Tr) from the initial point to the Lm, (5) the direction of motion, and (6) the final state. In the case of NA, the Tr occupies a space, the surface of the Lm (which is extended in space). The Tr may also have a stable position, where the Lm is a support. The Observer perceives the situation from the outside, from the initial point. The Observer sees the Lm in front of himself. He sees the outward part, the surface of the Lm.

### **SUPPORT & PRESSURE**

The first cluster of meanings is connected with the concept of “support” (cf. Seliverstova 2000).

1) The Tr may be a heavy object (material or metaphorical) or a force; the Lm is usually a person:

(4) WEIGHT, BURDEN	PRESSURE, INFLUENCE
vzvalit' meshok sebe na spinu	zhat', davit' na
'to shoulder a sack'	'to squeeze, to press, to weigh down on'
vozlozhit' objazannost' na kogo	dejstvovat', vozdejstvovat', vlijat' na
'to place a duty on smb.'	'to influence'
vozlozhit' otvetstvennost' na kogo	
'to make smb. responsible'	

**AGGRESSION**

napast' na

'to attack, to pounce on'

nabrosit'sja na 'jump on smb.'

nakrichat' na

'to scold smb., to go for smb.'

2) The Lm is an object (a thing, a part of the body) that supports smth./smb. or holds smth./smb. The next step of the metaphorical development is "support"-means, the manner of perception and the aspect:

**(5) SUPPORT**

Lm supports smth.

opirat'sja na trost'

'to lean on stick'

vstat' na nogi

'to recover one's feet'

Lm holds smth.

posadit' sobaku na cep'

'to chain up a dog'

zastegnut' kurtku na pugovicy

'to button up the jacket'

**MEANS**

∅

zhit' na svoj zarabotok

'to live on one's earnings'

**MANNER**

∅

probovat' na vkus

'to taste'

mjagkij na oshchjup'

'soft to the touch'

**ASPECT**

slepoj na odin glaz

'blind in one eye'

na moj vzgljad

'in my view'

na pervyj vzgljad

'at first sight'

**CHANGE OF STATE, STATUS, MANNER OF ACTION**

1) Movement from a closed space to an open space. Here the Tr is a person, and the Lm is an open space, e.g.:

- (6) vyjti na ulicu/na scenu  
‘to go out on the street/on stage’

2) Change of state, status, manner of action. The result is the new state of the Tr; Lm is a kind of “support”.

- (7) Vyshel na pensiju.  
‘He retired.’  
Pereshel na medlennyj shag  
‘He slowed down to a walk.’  
Pereshli na novuju sistemu obsluzhivanija.  
‘They changed over to a new service system.’  
Perevel na anglijskij jazyk.  
‘He translated it into English.’

## **LANDMARK & DIRECTION**

### **I. MOVEMENT of a PERSON/VEHICLE**

In this case, the Landmark is a real, existing, visible object or situation. Thus, the Landmark is a landmark in the literal sense. The Tr moves toward Lm. The Landmark is not conceptualized as a point or a container.

The Tr doesn’t move into the Lm, but only in the direction of the Lm (the preposition V would signal motion into the LM). The Lm isn’t a location, but an object, therefore we do not get the standard result, such as ‘Tr is on Lm’. If the movement is agentively controlled by the Tr, then the goal is to reach the Lm. If the movement is not controlled by the Tr, then the result is collision with the Lm, and there is a negative result for the Tr or for the Lm.

- (8) Motion in the direction of the visible Lm  
Controlled motion  
ekhat' na ogon'  
‘to go toward a fire’  
(if X is going, X will reach the point Y = Lm)

## Non-controlled motion

korabl' nessesja na skaly.

'the ship ran onto the rocks'

tank ekhal prjamo na nas

the tank rode straight toward us.

(if X is going, X will crash the object Y = Lm)

The fragment (part) of the basic schema has non-controlled, unexpected or unplanned contact with the Lm

Spatial:

natknulsja na derevo

'X ran into a tree'

Metaphorical:

narvalsja na zasadu/na neprijatnosti/natolknulsja na soprotivlenie

'ran into an ambush/ran into difficulties/encountered opposition'

(X moved in the direction of the Lm, but X didn't know it (X didn't expect and didn't want the contact with the Lm-Y).

## (9a) Landmark is the DIRECTION

Tr = moving object

poezd na Moskvu

'train bound for Moscow'

dvigat'sja na jug

'to move toward the south'

The active components of the basic scheme are 'distance' and 'direction': it can be said at the initial point of movement, when the train is not in Moscow (i.e., in the Lm), but: \**poezd na Moskve*; cf.: *X vyshel na ulicu* 'X went out into the street/outside' entails *X na ulice* 'X is on the street/outside'.

## (9b) Tr = fixed/motionless object

*doroga na Moskvu*

‘the road to Moscow’

*okna na jug/na ulicu*

‘the windows face south/overlooks the street’

In this regard, cf. adverbs such as *povernul nalevo* ‘turned to the left’

## II. EXTENSIONS

(10a) The direction of vision:

*smotret' na kogo-to*

‘to look at smb.’

Vision moves from us to the object, therefore it has direction; if X is looking at Y, he sees, first of all, the surface, the exterior. Cf. *smotret' v okno/v glaza* ‘to look through the window/in someone’s eyes’ Here we see the difference between NA and V in the opposition of surface and point: X is looking “into” point and wants to see what is inside.

(10b) Resemblance/similarity/likeness

*X pohoZh na Y.*

‘X is like/looks like Y’

(11) Reaction

*otvetit' na vopros*

‘to answer a question’

*Chto ty na eto skazhesh*

‘What do you say to that?’

*sbezhalis' na krik*

‘People came running at the sound of someone yelling.’

*ogljanulis' na krik*

‘People’s heads turned at the sound of someone yelling.’

**GOAL&CORRESPONDENCE****I. MOVEMENT to the GOAL**

The first instance is the case where the GOAL is the ENDPOINT of movement. The Tr (X) is a person; the Lm (Y) is the endpoint of movement and an open place. X cannot see Y, or X imagines Y and wants to reach Y. Cf. the following examples:

- (12) *poshel na stadion/na pljazh/pojehal na more/na Kavkaz/na Kipr/na Aljasku*  
 ‘went to the stadium/the beach/ went to the sea/ to the Caucasus/ to Cyprus/to  
 Alaska’  
*Kak popast’ na ulicu Franklina?*  
 ‘How does one get to Franklin Street?’

This use of NA with the accusative occurs commonly with the names of buildings:

- (13) *Poshel na kvartiru/na fabriku/na fermu/na kuhn'u/na fakul'tetvs. v*  
*ministerstvo/v muzej/v shkolu.*  
 ‘He went to the apartment/to the factory/to the farm/into the kitchen/to the  
 department vs. to the ministry/to the museum/to the school.’

This use (meaning) is also the basis for non-spatial extensions. The principal non-spatial domain of NA is the domain of the future. The future contains unexpected events, which we have no knowledge of, as well as events that we imagine because we or other people have planned these events or we want them to happen. NA establishes a relation (correlation) between a person (or an object) and a future event. Why do we use this preposition? The future is “in front”, i.e. ahead; the future event is the Landmark which a person (subject) sees ahead or before him, which he approaches in space and in time.

This leads us to the second instance, cases where the GOAL is some SITUATION. Here the Tr is again a person. The Lm is a situation in future. Cf. the following examples:



- (14) X idet na rabotu/na lekciju/na koncert/na peregovory/na sobranije/na sorevnovanija.

‘X is going to work/a lecture/a concert /to the negotiations/to a meeting/to the competition.’

The Lm is not a place, but a situation. But this situation will take place in a certain location, and the Tr must go to that place. The final state signals that X has arrived at the place (the Lm), but it doesn’t mean that X is an active participant in the situation Y.

- (15) On prishel v teatr.

‘He has come to the theatre.’

The use of V in this example implies ‘He is in the theatre’, but the following example implies ‘He is in the theatre’, but not ‘in the performance’:

- (16) On prishel na spektakl’.

‘X has come to the performance.’

If the situation isn’t localized (such as a war), we can only say (17a) and not (17b):

- (17a) On poshel na vojnu.

‘He went to the war.’

- (17b) \*On prishel na vojnu

‘He came to the war (to the front).’

Usually the place and the time of the Lm situation Y is established by other people (or by the subject X itself); Y is planned in advance and X is to come to a certain place at a certain time. If the realization of a situation depends on the subject X, if X can change its place and its time, it is not usually possible to use NA:

- (18) *Deti (pacienty) poshli na progulku.*  
 ‘The children (patients) went for a walk.’

But: *On poshel pogul'at'* ‘He went for a walk.’

The parts of the basic schema include: Movement to the Lm as the central link of the chain. Thus, (a) X wants Y– (b) X plans to do Y (takes place in Y) – (c) X establishes a relation with Y (this may be a decision or an action) – (d) X goes to the Y – (e) X realizes Y. The first part (a) may include hope for something:

- (19) *nadejat'sja na luchsheje/na chudo*  
 ‘to hope for the best/a miracle’  
*Ja rasschityvaju na jego pomoshch.*  
 ‘I counted on his help.’  
*Vy mozhete polagat'sja na menja.*  
 ‘You may rely on me.’

This often also includes the idea of support.

In the opposite situation:

- (19b) *Oni obrecheny na gibel'.*  
 ‘They are destined to die.’  
*Brosit' na vernuju smert'.*  
 ‘They threw them to certain death.’

The following examples show the components of the decision (20a) and relations of action of the subject X (20b) and actions of others (20c):

- (20a) *Reshilsja na pobeg.*  
 ‘He decided to run away.’

*Soglasilsja na operaciju*

‘He agreed to the operation.’

(20b) *Zapisalsja na priem k vrachu.*

‘He signed up for an appointment to see a doctor.’

(20c) *X-a priglasili na obed.*

‘They invited X to lunch.’

*X-a vyzvali na dopros.*

‘They summoned X to an interrogation.’

The examples in (21–22) show the motion and the realization of Y:

(21) *Deti (pacienty) poshli na progulku.*

‘The children (patients) went for a walk.’

(22) *Idti na shturm/na risk/na kompromiss/na sotrudnichestvo/na rashody/na*

*krajnije mery/vstat' na bor'bu za svobodu/prijti na pomoshch*

‘to attack a fortress/to take a risk/to make a compromise/to collaborate/to allocate money/to take extraordinary measures/to start a battle for freedom/to come for help.

The meaning "X realizes Y" is characteristic of the preposition V, cf. *On pustils'a v pl'as* (He started dancing). V has the meaning 'be inside of, in the situation of'. As opposed to V, NA has the meaning 'be outside, at a distance from Y (lm)'. But the construction "X NA Y" emphasizes the fact that X does Y intentionally, in a way that corresponds to his (previously conceived) decision: X imagines that he "sees" Y.

## II. RELATION, CORRESPONDENCE

A certain relationship is established between X and Y as a result of some action (state, characteristic) of X or of other people. In the construction 'X goes to the Y classes/concert' this relationship is not explicit, but it exists, for example:

- (23) X idet na zanjatija.  
 ‘X goes to classes.’  
 ∅ X is a student or a teacher;  
 X idet na koncert  
 ‘X goes to a concert.’  
 ∅ X has a ticket.

The construction “X NA Y” can denote a correspondence between resources X and a future situation Y, which a person can realize with the help of X, or the object Y, which a person can receive using X. The RESOURCE (Tr) may be material or money:

- (24) Sherst’ na kostjum/mjaso na sup  
 ‘Wool for a suit/meat for the soup’  
 Den’gi na bilet  
 ‘Money for a ticket’

In the latter phrase, the Lm is the object (ticket), but there is a situation implied by this object: money to buy a ticket. The resource may also be time:

- (25) Nam dali tri dnja na sbory.  
 They gave us three days to get ready.’

The resource is occasionally a document giving the bearer the right to do Y:

- (26) Order na obysk/bilet na koncert/na samolet/na odnu pojezdku  
 ‘Search warrant/concert ticket/airplane ticket/one-way ticket’

The Tr (X) is the document – the right to do Y, and Y is a situation in the future. A person in authority/society establishes a correlation between X and Y.

Other types of predetermination are the type of use, time of use, quantity, measure. X may be a resource, and Y a situation, in which X will be used: *frukty na desert* (fruit for

dessert). Alternatively, X is a resource, and Y a time interval during which X will be used: *zapasy na zimu* (winter supplies), *obuv' na ljeto* (summer shoes). The correlation may also be one of measure: *pal'to na mal'chica 6 let* (a coat for a 6-year-old boy); or it may be correlation of quantity: *kajuta na dvoih* (a cabin for two), *serviz na 6 person* (service for six).

Predetermination concerns things reserved or allocated for some expected use. Thus, the next step is their actual use. And here resources have a quantitative aspect: X must exist in sufficient quantity to be used for Y, as in (27).

- (27) Na kostjum poshlo 3 metra.  
 ‘Three meters of material were used for the suit.’  
 On potratil 40 minut na podgotovku.  
 ‘He spent 40 minutes preparing.’  
 Nakryli stol na shesterykh.  
 ‘They set the table for six.’

The Lm may also be an interval. If a situation takes up a certain amount of time, there is a natural semantic extension situation  $\emptyset$  time (cf. ‘He sat silently through the whole meeting’  $\emptyset$  for three hours): *prijekhal na kanikuly*  $\emptyset$  *prijekhal na nedel'u* (He came for vacation  $\emptyset$  He came for a week). Lastly, the Lm may be a date: *Sobranije naznachili na pjatnicu* ‘The meeting is scheduled for Friday’.

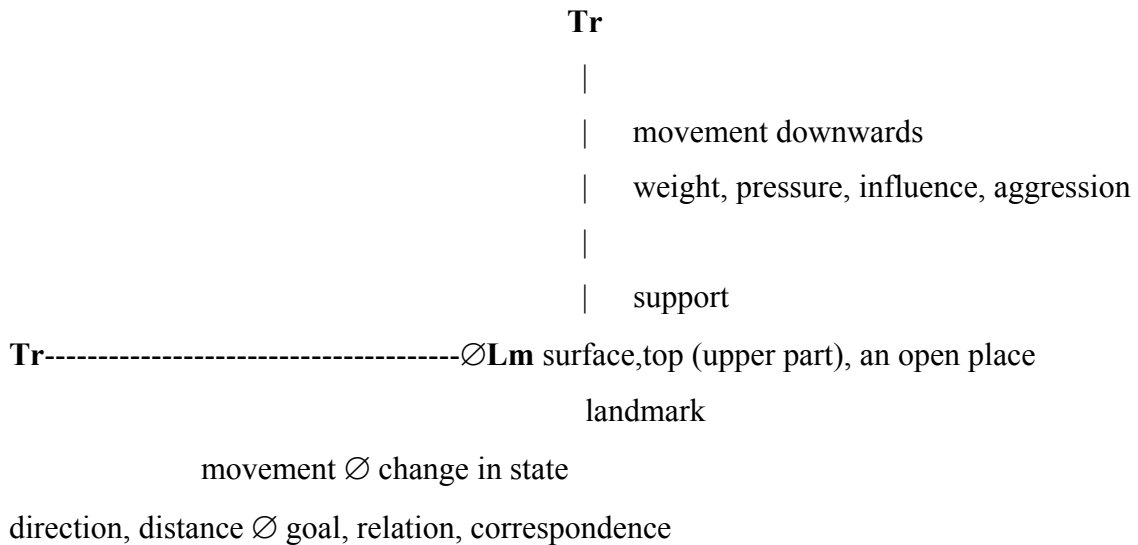
## RELATIONAL MEANINGS

There is a distance between the initial point and the destination as a result of real or metaphorical movement, change etc., and the Observer sees the Lm (the endpoint, the result state) from the initial point:

- (28) na sledujushcheje utro  
 ‘the next morning’  
 starshe na dva goda  
 ‘two years older’

opozdat' na polchasa  
 'be half an hour late'

## The SEMANTIC NETWORK



### I. SUPPORT & PRESSURE

WEIGHT, BURDENSUPPORT

Lm supports smth.

PRESSURE, INFLUENCE, MEANS

AGGRESSION

### II. CHANGE in STATE, STATUS, MANNER of ACTION

### III. LANDMARK & DIRECTION

MOTION TOWARDS LANDMARK

DIRECTION WITHOUT MOTION

DIRECTION of VISION

RESEMBLANCE

REACTION

### IV. GOAL & CORRESPONDENCE

ENDPOINT

GOAL

## CORRESPONDENCE

QUANTITY  $\emptyset$  realization, distribution:

**V.RELATIONAL MEANINGS****References**

- Brugman, C.M. and Lakoff, G. 1988. "Cognitive topology and lexical networks," in G. W. Cottrell, et al., eds. *Lexical ambiguity resolution: perspectives from psycholinguistics, neuropsychology and artificial intelligence*. San Mateo (CA).
- Cienki, A. J. 1989. *Spatial cognition and the semantics of prepositions in English, Polish, and Russian*. Munich.
- Herskovits, A. 1982. *Space and the prepositions in English: Regularities and irregularities in a complex domain*. Ph.D. dissertation, Stanford.
- Herskovits, A. 1986. *Language and spatial cognition: An interdisciplinary study of the prepositions in English*. Cambridge.
- Janda, L. A. 1985. *The meaning of Russian verbal prefixes: Semantics and grammar*, in M. S. Flier and A. Timberlake, eds. *The scope of Slavic aspec*. Columbus, Ohio.
- Seliverstova O.N. 2000. "Semanticheskaja structura predloga NA," in *Issledovanija po semantike predlogov*. Moscow.
- Vandeloise C. 1994. "Methodology and analyses of the preposition *in*." *Cognitive Linguistics* 5(2).