

## Sentential and Constituent Negation in Russian BE-sentences Revisited

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### 1. The problem: a puzzling anomaly in Gen Neg BE sentences.

What is the negation of (1)?

- (1) Kolja v Londone.  
Kolja-NOM in London  
'Kolja is in London.'

Two potential candidates:

- (2) Kolja ne v Londone.  
Kolja-NOM NEG in London  
'Kolja is not in London.'
- (3) Koli net v Londone.  
Kolja-GEN NEG.BE in London  
'Kolja is not in London.'

The same questions arise for other examples that have a definite subject, a "null copula", and a locative or locative-possessive predicate, such as those in (4), from Kondrashova (1996).

- (4) a. Naša mašina na stojanke.  
our car-NOM in parking lot  
'Our car is in the parking lot.'
- b. Vaše pis'mo u sekretarja.  
your letter-NOM at secretary  
'The secretary has your letter.'

**A simple case.** For contrast, we present a sentence for which the question of what "its negation" is uncontroversial. Everyone would agree that the negation of (5a) is (5b). Sentence (5b) is an instance of syntactic sentential negation (S-Neg), and semantically it expresses the contradictory of (5a). Constituent negation (C-Neg) gives a contrary

proposition (5c), whose properties we'll discuss more in what follows. It may indeed be used in denying (5a), but one wouldn't be tempted to call it "the negation of (5a)."

- (5) a. Petrov rabotaet v VINITI.  
Petrov-NOM works at VINITI  
'Petrov works at VINITI.'
- b. Petrov ne rabotaet v VINITI.  
Petrov-NOM NEG works at VINITI  
'Petrov doesn't work at VINITI.'
- c. Petrov rabotaet ne v VINITI.  
Petrov-NOM works NEG at VINITI  
'Petrov works somewhere other than at VINITI.'

**The Puzzle.** It would seem that the negation of a simple locative sentence like (1) "should" be (2), which differs from (1) only by the addition of the negative morpheme *ne*. But it has been argued (Babby 1980, Chvany 1975, Harves 2002a) that (2) involves constituent negation, and that the propositional negation of (1) is expressed by (3); most native speakers agree. This is an anomaly (Babby 1980, Harves 2002b), since *net* '(there) is/are not' and Genitive of Negation are generally found in existential sentences and generally impossible in locative sentences.

**Preview.** In section 2, with some new kinds of arguments, we argue that neither (2) nor (3) is straightforwardly "the negation of (1)": (2) indeed involves C-Neg, and (3), which does have S-Neg, appears not to preserve the structural properties normally assumed for (1). In Section 3, we suggest that new perspectives on syntax, semantics, and pragmatics of negation may help resolve the status of (2). In Section 4, we discuss the problem of the semantic relation of sentence (3) to that of sentence (1), invoking Borschev and Partee's (2002a) Perspective Structure and Padučeva's (1997) Observer. In Section 5, we put the pieces of our story together and argue that either (2) or (3) may be a "functional" or "pragmatic" (Horn 1989) negation of (1) in appropriate contexts. Our goal is to show that attention to syntactic, semantic and pragmatic aspects of negation and of BE-sentences can help resolve the apparent anomalies concerning the relations among (1), (2), and (3).

### 2. Identifying Constituent Negation.

#### 2.1. Arguments that (2) involves constituent negation.

To argue that (2) involves constituent negation, i.e. has structure (6a) rather than (6b), it has been standard since the work of Babby (1980) to state that negation in (2) must be interpreted contrastively, meaning that the use of such a sentence requires an overt or implicit paired contrasting 'correction'. Although (2) can very well be intended and understood contrastively, contrastiveness is not obligatory for (2), according to many speakers. Sentences (7a-b) are even clearer: it may be important that the person on duty was not at his post, but irrelevant and/or unknown where he will be, and similarly for (7b). Contrastiveness is largely a pragmatic, not structural, matter (Horn 1989, Padučeva 2004, p.430-1). We note that one factor that facilitates a non-contrastive reading for such sentences is for the Location mentioned to be the/a "normal location" for the subject (Padučeva 2004, p.430); a related facilitating factor is that the Perspectival Center (Borschev and Partee 2002a) or Observer (Padučeva 1997) be centered at the mentioned Location. Plurality of the subject NP also helps (8b,c, 9).

(6) a. Constituent-negation structure: Kolja  $\emptyset_{be}$  [ne [v Londone]]

b. Sentential-negation structure: Kolja [ne [ $\emptyset_{be}$  v Londone]]

(7) a. Dežurnyj  $\emptyset_{be}$  (byl, budet) ne na meste.

The person on duty is not (was not, will not be) at his/her proper place/ is (was, will be) at the wrong place. (The speaker normally doesn't know where.)

b. Mashina  $\emptyset_{be}$  (byla, budet) ne v garazhe.

The car isn't (wasn't, won't be) in the garage. (The speaker normally knows where it is, but it may be quite irrelevant.)

So if one wants to argue that the negation in (2) must be C-Neg and not S-Neg, one cannot depend on evidence about contrastiveness. But we believe that there are stronger arguments to show that (2) is indeed not syntactic S-Neg.

- One argument comes from future and past tense quantificational sentences. If (2) could have structure (6b), then so could (8c); and then we can ask whether (8c) shares scopal possibilities with (8a), unambiguously syntactic S-Neg, or with (8b), unambiguously syntactic C-Neg. We find that in (8b), negation cannot take scope over the subject, while in (8a), it can (optionally). But (8c) allows only narrow scope<sup>1</sup> for the negation, so (8c) and (2) must have the C-Neg structure of (6a)<sup>2</sup>.

(8) Context: We are talking (perhaps in Moscow) about why the Royal Ballet won't be performing in London while our friend is (8c) or will be (8a,b) there.

a. Vse baleriny ne budut v Londone.

All ballerinas-NOM NEG will.be in London

AMBIG: (i)  $\forall > \text{NEG}$  : all of the ballerinas will not be in (will be out of) London; i.e. None of the ballerinas will be in London; or

(ii)  $\text{NEG} > \forall$  [dispreferred but possible with a marked Theme-Rheme structure] not all will be in London<sup>3</sup>.

b. Vse baleriny budut ne v Londone. UNAMBIG: Only (i):  $\forall > \text{NEG}$

All ballerinas-NOM will.be NEG in London

All of the ballerinas will be not in (will be out of) London; i.e. None of the ballerinas will be in London.

c. Vse baleriny ne v Londone. UNAMBIG: Only (i):  $\forall > \text{NEG}$

All ballerinas-NOM NEG in London

All of the ballerinas are not in (are out of) London; i.e. None are in London.

- Similarly in (9), a reading where negation has wider scope than *both* is lacking, whereas in comparable past or future tense sentences with *ne* before the verb, both scopes are possible. It is impossible to continue (9) by saying, for instance, \*... *tam tol'ko odin* 'there's only one in there'.

(9) Oba diska ne v korobke.

both disk NEG in box

'Both disks aren't in the box' BOTH > NEG; \*Neg > BOTH

- Another argument to the same conclusion comes from the following set of sentences.

(10) a. Kolja ne budet v ètot moment v Londone.

Kolja-NOM NEG BE.FUT.MASC at this moment in London

'Kolja won't be in London at that moment.'

b. Kolja ne byl v ètot moment v Londone.

Kolja-NOM NEG BE.PAST.MASC at this moment in London

'Kolja was not in London at that moment.'

c. \*Kolja ne v ètot moment v Londone.

Kolja-NOM NEG at this moment in London

('Kolja is in London but not at this moment.')

If *ne+∅* were possible, (10c) would be OK, analogous to *Kolja ne naxoditsja v ètot moment v Londone*, and analogous to (10a-b). The impossibility of (10c) is another argument<sup>4</sup> against the possibility of a syntactic S-Neg structure for sentences like (2).

**Summary:** Contrastiveness is not a reliable diagnostic of Constituent Negation, but we have found stronger arguments to show that sentences like (2) involve C-Neg and not S-Neg, by comparing their behavior with that of sentences that have *ne* either preceding (S-Neg) or following (C-Neg) an overt copula. Sentences like (2) clearly pattern with C-Neg sentences in ways that show that *ne* in (2) does not have sentential scope.

## 2.2. The puzzles that remain.

If (2) does not involve syntactic sentential negation, can (2) be "the negation of (1)"? We believe the usual assumption has been that the answer must be "no", but we will argue that those assumptions have rested on overly simple notions of "the negation of" a given sentence,

<sup>4</sup> A similar argument comes from the sentences in (22) in Section 3.1; (22a,b,d) are all possible, but unambiguous, with different interpretations: (22a) is unambiguously sentential negation, (22b) unambiguously constituent negation. We can see from (22b) that if the negation is placed after the overt verb, we get only the constituent negation reading. Hence (22d), likewise unambiguous, can only be  $\emptyset+ne$ , not *ne+∅*.

which we try to correct in Section 3, and that there is a way to defend a context-dependent “yes” answer.

And what about (3), which has been argued to be the negation of (1)? It does involve syntactic sentential negation. But sentences with *net* and Gen Neg are normally interpreted as negations of affirmative Existential sentences. And (1) is not considered to be an Existential sentence; why should its negation have such a form? To try to resolve this puzzle, we need not only more fine-grained understanding of negation, but a better understanding of the relation between syntactic form and Perspectival Structure or the role of an Observer in Locative sentences, which we will address in section 4.

### 3. Syntactic, semantic, pragmatic notions of negation.

In classical semiotics (Morris 1938), *syntax* treats properties of expressions; *semantics* relates expressions to their possible denotata; *pragmatics* relates expressions, their denotata, and their uses in possible contexts.

Similarly we need to distinguish syntactic, semantic, and pragmatic notions relating to negation, and doing so is not always simple. The question “Is sentence S1 the negation of sentence S2?” is not a single question, although in simple enough cases it may seem so, since the answer may be the same on essentially all versions of the question.

#### 3.1 Syntactic notions of S-Neg, C-Neg.

##### 3.1.1. English: Jespersen’s Nexal/Special Neg, Klima’s S-Neg, C-Neg.

- Jespersen: nexal (“Sentential”) negation vs. special (“Constituent”) negation: defined in terms of position of negative morpheme. (Jespersen 1924),(Horn 1989)
- (11) a. Nexal Neg: John didn’t arrive. John didn’t eat anything.  
b. Special Neg: No one objected. John ate nothing. They’re arguing about nothing.
- Klima: sentential negation vs. constituent negation: defined in terms of several tests, including tag questions, *too* vs *either* tags, *so* vs. *neither* conjunction. Some Jespersen ‘special negation’ cases clearly come out as Klima-sentential-negation, e.g. *No one objected*. (Klima 1964)
- (12) a. Klima S-Neg: John didn’t arrive. John didn’t eat anything. No one objected. Not everyone agreed. With no job was John content. Kim is not happy.  
b. Klima C-Neg: They were arguing about nothing. With no job, John was content.
- We will not try to resolve which notions of S-Neg and C-Neg are most explanatory for English; fortunately, for Russian, the intuitions behind Jespersen’s and Klima’s criteria converge: the occurrence of *ne* in pre-verbal position is a much better diagnostic for S-Neg in Russian than any positional criterion in English. .

##### 3.1.2. Russian: Russian syntactic S-Neg, C-Neg.

- For Russian: because of Neg-concord, it is quite uncontroversial to use the term “syntactic sentential negation” for sentences that have *ne* in its canonical preverbal position, with or without additional *ni*-phrases in the sentence. (We consider one-clause sentences only.) There are not two competing definitions as there are for English, since the cases of Klima’s S-Neg which are not Nexal negation in English are Nexal negation in Russian.

- (13) a. Russian Syntactic S-Neg: *Ivan ne prišel. Nikto ne prišel. U menja net nikakix deneg. My ne rešili vse zadači/ vsex zadač. Vse mal’čiki ne našli griby/gribov. Vsego ja ne ponjal.*  
b. Russian Syntactic C-Neg: *Èto byl ne portret. Prishel ne Ivan. Petja ezdit ne bystro. On rešil ne vse zadači. Ne vse mal’čiki našli griby. Ja ponjal ne vse.*  
c. Unclear cases: *Kolja ne v Londone. Kolja ne gotov. Kolja ne ženat. Kolja ne durak.*
- For Russian, the main unclear cases are present tense BE sentences with no overt verb. The question is whether such sentences have the structure in (6a) or (6b), or are ambiguous. But we have seen in Section 2 that there are ways to settle the question.

#### 3.1.3. Properties of Syntactically S-Neg sentences in Russian.

For Russian, S-Neg sentences differ systematically from C-Neg sentences in several properties.

- *Ni*-words<sup>5</sup> and *ni*-phrases are licensed by S-Neg and not by C-Neg. We illustrate with the licensing of *ni – ni* coordinations.
- (14) a. *Ni tvoja, ni moja kniga ne byla na stole.*  
NI your NI my book NEG BE.PAST on table  
‘Neither your nor my book was on the table.’  
b. \**Ni tvoja, ni moja kniga byla ne na stole.*  
NI your NI my book BE.PAST NEG on table  
(no licensing by C-Neg ‘not on the table’)
- (15) a. *Ni my, ni oni ne rešili vsex zadač.*  
NI we NI they NEG solved all problems-GEN  
‘Neither we nor they solved all the problems.’  
b. \**Ni my, ni oni rešili ne vse zadači.*  
NI we NI they solved NEG all problems-ACC  
(no licensing by ‘not all the problems’)
- (16) a. *Mal’čiki ne prigotovili ni ris, ni kartoshku.*  
boys NEG prepared NI rice-ACC NI potatoes-ACC  
‘The boys didn’t cook either rice or potatoes.’  
b. \**Ne mal’čiki prigotovili ni ris, ni kartoshku.*  
NEG boys prepared NI rice-ACC NI potatoes-ACC  
(no licensing by ‘not the boys’)

And as is well known (Babby 1980, Peškovskij 1956), syntactic S-Neg licenses Gen Neg, and C-Neg does not, even in cases where the semantics is virtually indistinguishable, as in the NEG > √ reading shared by (17a-b), either of which could be considered a semantic negation of (18) under one or more of the construals of that notion below.

<sup>5</sup> With a few exceptions: e.g., some *ni*-words have expressive meanings rather than simple negative meanings. For instance, *ničja* in a sentence without any negation, (A), is not a genuine *ni*-word, but rather an expressive adjective. Some *ni*-words shift into expressives more easily than others.

(A) Èto  $\emptyset_{BE}$  ničja igruška.  
This [is] noone’s toy

*Ni – ni* expressions, however, are always true negatives, which makes them a good diagnostic for S-Neg.

- (17) a. My rešili vsex zadač.  
we NEG solved all problems-GEN  
'We didn't solve all the problems.'
- b. My rešili ne vse zadači / \*vsex zadač.  
we solved NEG all problems-ACC / \*all problems-GEN  
'We didn't solve all the problems.' (*lit.* 'We solved not all the problems.')
- (18) My rešili vse zadači.  
we solved all problems-ACC  
'We solved all the problems.'

Even the syntactic C-Neg in (19b) does not license Gen Neg, although its translation into English would come out as syntactic S-Neg on Klima's tests. It is semantically negative on Padučeva's (1974) definition of 'general negation', since it is the semantic contradictory negation of the corresponding sentence without the *ne*. And the VP of such a sentence is clearly a Downward-Entailing context (Ladusaw 1980) as shown in (20).

- (19) a. Nikto ne videl Mašu / Maši.  
no one NEG saw Masha-ACC / Masha-GEN  
'No one saw Masha.'
- b. Ne vse mal'čiki videli Mašu / \*Maši.  
NEG all boys saw Masha-ACC / \*Masha-GEN  
'Not all the boys saw Masha.'
- (20) Ne vse mal'čiki priexali do 3-x → Ne vse mal'čiki priexali do 2-x.  
NEG all boys arrived by 3 NEG all boys arrived by 2  
'Not all the boys arrived by 3 → Not all the boys arrived by 2.'

Padučeva (1974) separates syntactic sentential negation, characterized by pre-verbal *ne* 'not', from semantic 'general negation', characterized truth-conditionally (see Section 3.2), and notes that Russian is much more likely than English to use syntactic 'term negation' (here C-Neg) to express semantic 'general negation', since the Slavic languages generally prefer to position the negative morpheme before the Rheme (Padučeva 1974, Sgall et al. 1986): see (21) (from Padučeva 1974 p. 152).

- (21) English: My observations didn't help me much.  
Russian: Moi nabljudenija ne sil'no pomogli mne.  
My observations NEG strongly helped me  
*lit.* 'My observations helped me not much.'

- **Observation:**
- Not all syntactically S-Neg sentences are semantic "negation of" a "corresponding" affirmative. And not all syntactically affirmative sentences "have" a semantic negation expressible by a "corresponding" S-Neg sentence. A good example is (22): (22a) is the syntactically closest S-Neg counterpart of (22c), neither it nor (22b), with C-Neg, expresses the semantic contradictory of (22c). (And comparing (22d) to the other sentences in (22) gives one more argument that the structure of (22d) can only be C-Neg, as noted in a footnote in Section 2.)

- (22) a. Kolja ne budet iz za Vas v Sibiri.  
Kolja NEG BE.FUT because-of you in Siberia  
Because of you, Kolja won't be in Siberia.

- b. Kolja budet ne iz za Vas v Sibiri.  
Kolja BE.FUT NEG because-of you in Siberia  
Kolja will be in Siberia, (but) not because of you.
- c. Kolja budet iz za Vas v Sibiri.  
Kolja BE.FUT because-of you in Siberia  
Kolja will be in Siberia because of you.
- d. Kolja ne iz za Vas v Sibiri.  
Kolja NEG because-of you in Siberia  
Kolja is in Siberia, (but) not because of you.

- **C-Neg** sometimes expresses semantic 'general negation.' See examples (17b), (19b).
- **Conclusion:** S-Neg plays an important role in Russian syntax, but is neither necessary nor sufficient for semantic 'general negation.'

### 3.2 Semantic notions. The semantic negation OF p.

It is principally in semantics that we find (various) definitions of what it is for one sentence to be the negation of another, or more strictly, for one proposition to be the negation of another. The familiar truth-tables of logic present the simplest case: we assume that all propositions are true or false, and define (sentence) negation truth-functionally:

**Table 1: the simplest definition of propositional negation.**

p	¬p
T	F
F	T

When we consider natural language negation, one important semantic distinction is that between *propositional (contradictory) negation*, corresponding to the simple truth-table definition above or to the paraphrase "It is not the case that S", and *contrary negation*.

(23) a. p2 is a contradictory negation of p1: p2 is true iff p1 is false.

b. p2 is a contrary negation of p1: p2 and p1 cannot both be true but can both be false.

Sometimes syntactic C-Neg gives rise to contrary negation, as in examples (5c) and (22b) above, but not always, as we saw<sup>6</sup> at the end of Section 3.1. It is the notion of *propositional negation* that gives the core semantic notion of "negation of".

Semantic "negation of" is an important notion, but not a single simple notion. Beyond the relatively clear distinction between propositional (contradictory) negation and contrary negation, there is the wider question of the scope of the negation operator in various constructions. We will use the term "local" negation for cases where a negative operator has narrow scope relative to other operators in a sentence. (Semantic local negation often correlates, although not perfectly, with syntactic C-Neg.) Other important issues include the status and treatment of presuppositions, and the status of linguistically encoded "pragmatic" factors such as Topic-Focus structure and point of view (including B&P's *Perspectival*

<sup>6</sup> In fact, C-Neg in some cases can yield a statement that is not even a contrary, but quite compatible with the affirmative 'counterpart', if it is embedded deeply enough: *He saw a cat with no collar* (since he could also have seen a cat with a collar); but we can ignore such cases here.

Structure, Paducheva's Observer); we consider such factors important in many of our examples. Those factors also complicate the individuation of the syntactic objects we are talking about: does a shift in Topic-Focus structure create a 'different sentence' or a different interpretation of the same sentence?

For example, consider the difference between the positions of Babby (1980) and Babby (2001): in the earlier work, the syntactic rules governing the Nom/Gen alternation referred directly to Theme-Rheme structure; in the later work, the affirmative sentence has two different syntactic structures that correlate with the difference in Theme-Rheme structure and the Nom/Gen alternation is determined by the syntactic structure. We are not advocating a particular view, but noting the complications engendered by the fact that the range of visible syntactic differences is not identical in affirmative and negative sentences.

### 3.3 Semantic and Pragmatic notions.

Given current dynamic theories of semantics, the line between semantics and pragmatics is not sharp or stable, and terminology is not stable. Here we will consider semantics and pragmatics together, very briefly, trying to stay neutral on boundary controversies, including semantic vs. pragmatic presupposition.

#### "Pragmatic negation of" notion(s):

We noted earlier that pragmatics concerns relations among expressions, their denotata, and contexts of use. It is thus natural that "pragmatic negation" should be a three place relation: A speaker may use sentence S2 with semantic interpretation p2 and a set of pragmatic presuppositions  $\Sigma 2$  to deny a sentence S1 with semantic interpretation p1 and pragmatic presuppositions  $\Sigma 1$  (probably  $\Sigma 1 = \Sigma 2$ ) if in those contexts in which all the pragmatic presuppositions are satisfied (so that the sentence is felicitous), p2 is the contradictory of p1 (picks out the complement from within the remaining set of possible situations).

Especially in the case of pragmatic negation, it is important to distinguish between "syntagmatic" and "paradigmatic" notions. Syntagmatic: An utterance of B can be used to deny an utterance of A in context C. Paradigmatic: A and B can be used in the same contexts, with the same presuppositions, contextual parameters, etc.; they make contradictory statements about some 'at-issue' state of affairs. We are interested here, as with the syntactic and semantic notions of negation, in the paradigmatic relation, but intuitions are difficult to control in this respect.

Horn (1989, pp 504-518) applies the notion of pragmatic negation to Russian, citing Babby's classic analysis of negated existential sentences in Russian (Babby 1980) as a case in which Theme-Rheme structure and associated pragmatic presuppositions are crucial. But the semantics and pragmatics of Russian Genitive of Negation are still controversial; we will return to some of the controversy below.

We can illustrate the notion of Pragmatic negation clearly with our *Petrov* example (5a-c). Table 2 below shows in which possible situations the sentences are true, false, and infelicitous (for Horn, 'true or false but infelicitous'). We include two versions of the affirmative sentences with different choices of topic, and correspondingly different pragmatic presuppositions. We acknowledge that different views of the presuppositions of topic phrases

may result in different interpretations<sup>7</sup> of "infelicity" (#), and acceptance or rejection of the possibility of the shaded truth-values.

**Table 2**

Propositions → ----- Classes of situations <sup>8</sup> ↓	(5ai) Petrov] <sub>TOPIC</sub> rabotaet v VINITI	(5aii) [Petrov rabotaet] <sub>TOPIC</sub> v VINITI	(5b) [Petrov] <sub>TOPIC</sub> ne rabotaet v VINITI (propositional neg)	(5c) [Petrov rabotaet] <sub>TOPIC</sub> ne v VINITI (local neg)
There's no Petrov	# (False)	# (False)	# (True)	# (False)
Petrov doesn't work anywhere	False	# (False)	True	# (False)
Petrov works at IPPI, not at VINITI	False	False	True	True
Petrov works at VINITI	True	True	False	False
KEY: # = violation of a pragmatic presupposition: infelicitous in such contexts (Here we are following Horn's analysis, treating presuppositions as pragmatic.)				

We can see from Table 2 that semantically, (5b) is the contradictory negation of (5a) and the C-Neg sentence (5c) is not: it is only a contrary, not a contradictory. But in a context in which the presupposition that Petrov works somewhere is assumed to hold, it is natural for the speaker to use the more informative (5c) to deny (5a) (which would in such a context be interpreted as (5a<sub>ii</sub>)).

We can call (5c) a good "pragmatic negation" of (5a) in such a context: it is more informative than (5b), and the one who uses it is conveying presuppositions she presumes are shared.

Note that the sensitivity to context which is central to the notion of "pragmatic negation" concerns not only presuppositions, but other aspects of context such as location and point of view. So for instance, if speakers A and B are in different locations, B's utterance of a repetition of A's sentence (reply B2 to A in (24)) would express a pragmatic contrary negation (denial) of A's assertion. Agreement could be expressed only by changing the sentence to adapt to the difference in context.

- (24) A: John is here.  
B1: (Yes,) John is there.  
B2: (No,) John is **here**.

<sup>7</sup> If you consider violations of the relevant presuppositions to result in truth-value gaps, read "#" as "no truth value" and ignore the (Aristotle-Horn) truth values in parentheses. Or you can read "# but true" as meaning: You can't felicitously utter (5b) in a context where Petrov doesn't exist, but if someone mistakenly did so, her utterance would be anomalous but true, and similarly (5c) would be anomalous but false.

<sup>8</sup> For graphic simplicity, we are oversimplifying, and not distinguishing in the left-hand column the roles of situations as contexts of utterance and points of evaluation for truth and falsity. Distinguishing these roles would require a 3-dimensional chart. Not distinguishing may be confusing, though.

### 3.4 Half of the solution.

We now have enough to describe the sense in which (2) can be “the negation of (1)” without being a syntactically negative sentence, i.e. while holding that (2) has the structure in (6a), not that in (6b). (2) is not S-Neg, but can be the pragmatic negation of (1). Semantically it can be “a” (contrary) negation of (1); and given natural assumptions about context, it would normally not even be noticed that it is not full contradictory negation of (1).

On the other hand, (3) is S-Neg, but it’s not obvious that it is the negation of (1) on any formal grounds (syntactic or semantic): so where does its intuited relation to (1) derive from? That is the other half of the puzzle that we still have to try to solve.

### 4. Puzzles of Perspective.

The sentences we have been puzzling over, (1) and (4a), are ones which in their affirmative forms are by all accounts not Existential sentences; they are in fact listed as typical Locative sentences in Kondrashova (1996). They do not have *est*, and the subject, topic, and Perspectival Center (on the approach of Borschev and Partee (2002a, 2002b, 2002c), which we say more about below) are most naturally understood to be aligned: the sentences predicate being in a certain location of Kolja or of our car.

- (1) Kolja v Londone.  
Kolja-NOM in London  
‘Kolja is in London.’
- (4a) Naša mašina na stojanke.  
our car-NOM in parking lot  
‘Our car is in the parking lot.’

On the other hand, the “anomaly” we spoke of at the beginning is that what are commonly taken to be their negations, (3) and (25), contain *net* ‘NEG.BE’. But typical *net*-sentences are negations of *est* ‘BE’-sentences, and typical *est*-sentences are Existential.

- (3) Koli net v Londone.  
(25) Našej mašiny net na stojanke.

A typical affirmative Existential sentence is (26a); its clear negative counterpart in (26b) also has *net* and Gen Neg.

- (26) a. V xolodil’nike est’ eda.  
in refrigerator BE food-NOM.SG  
‘There is food in the refrigerator.’
- b. V xolodil’nike net edy.  
in refrigerator NEG.BE food-GEN.SG  
‘There isn’t any food in the refrigerator.’

In this section and in an Appendix, we briefly explore two alternative approaches to the resolution of the apparent mismatch between (1) and (3). One approach has its roots in Padučeva’s work (Padučeva 1992, 1994, 1997, 2004) concerning the role of Observer and its interaction with syntactic structure and Theme-Rheme structure in certain sentence types, and the other in work of Borschev and Partee (Borschev and Partee 2002a, 2002b, 2002c, Partee and Borschev in preparation, in press) on the partly similar notion of Perspectival Structure

and its interaction with syntactic structure in Existential and Locative sentences. What we say here extracts certain ideas from those works without following them exactly. On the Padučeva-related approach, which we here refer to as Hypothesis A, (3) is not an Existential sentence in any sense; the Observer is located in London in both (1) and (3)<sup>9</sup>, but since Kolja is definite, there is no connection to Existential sentences in either (1) or (3). On the Borschev and Partee-related approach, which we will refer to as Hypothesis B, there is a change in Perspective Structure between (1) and (3), with Kolja as Center of Perspective in (1), and London in (3), but that shift may be a natural one because of the interaction of other factors. On Hypothesis B, it is particularly important to recognize that the line between Existential and Locative sentences is not a sharp one, and to raise the possibility that (3) is not a negative Locative sentence with a surprising syntactic form, but may actually be a negative Existential sentence, or a negative sentence of a ‘mixed type’ between Existential and Locative. Given what we have said above about the semantics and pragmatics of negation, one may suggest on Hypothesis B that in the right contexts, it can be appropriate to use an Existential sentence as the negation of a Locative one, especially if the expected corresponding negative Locative sentence is syntactically blocked (by the impossibility of sentential negation with  $\emptyset_{BE}$ .)

At the moment, a majority of the co-authors are inclined toward something like Hypothesis A; we leave most of Hypothesis B to an Appendix and to further work. Assumptions of Hypothesis A (some of which are shared by Hypothesis B):

(i) Perspective structure (or the location of Observer) is marked via the Nom/Gen distinction in negative sentences. In affirmative sentences, we have no direct evidence about Perspective Structure. Here we will assume that affirmative sentences are perspectivally ambiguous, and we will represent both variants in the tables in Section 5.

(ii) It is Theme-Rheme structure that is crucial for word order. Theme-Rheme structure can override Perspectival Structure when they do not agree<sup>10</sup>. In the simplest cases, Subject-Predicate, Theme-Rheme, and Perspectival Structure (Center - Non-Center) are all aligned. Definiteness and animacy are also non-randomly associated with Subject/Theme/Perspectival Center. The primacy of Theme-Rheme structure over Perspectival Structure in determining word order can be argued for on the basis of facts such as absolute impossibility of the word order in (27).

- (27) \*Doma on.  
At-home he  
(He is at home.)

(iii) If (i) and (ii) are correct, then for affirmative sentences we have that there is no marking of Perspectival Structure at all, since the word order is determined by Theme/Rheme, and there is no Nom/Gen distinction. The earlier assertions by B&P that in (1), Kolja is obligatorily the Perspectival Center, is rejected on this hypothesis.

(iv) On a stronger version of this hypothesis (Padučeva’s), there is actually only one possible Perspectival Structure for (1), in which the Perspectival Center, or Observer, is obligatorily in London: in that case the Theme-Rheme structure and the Perspectival

<sup>9</sup> Padučeva herself prefers to say that the location of the Observer is unspecified in (1), but necessarily in London in (3).

<sup>10</sup> Although the frameworks make direct comparison impossible, this statement draws in part on related claims in (Kondrashova 1996); Padučeva’s work points in the same direction. This statement suggests parallels between B&P’s Perspectival Structure, Kondrashova’s level of NP structure, and what Babby (1980) attributed to Theme-Rheme structure; the invocation of Theme-Rheme structure in this talk is closer to what Babby (1980) said about the distinct Given-New structure.

Structure necessarily mismatch in that example. But since evidence in favor of that stronger hypothesis rests strongly on interpretations of analogous past tense sentences, we cannot go into that alternative here, but leave it for future work.

### 5. The resolution of the problem on Hypothesis A.

Step 1. Assume that in sentence (1), the NP subject is in the unmarked case both Topic and Perspectival Center, and that this normally induces a pragmatic violation (marked # in the charts below) in a context in which the Topic and/or the Perspectival Center should fall on the Location. That is, we assume that this choice affects felicitous use in context, but does not affect truth conditions as long as we presuppose the existence of both Kolja and London. These assumptions are reflected in the first column of Table 3. We refer to this analysis of sentence (1) as (1-i).

Step 2. Assume, following Hypothesis A, that the opposite choice of Perspectival Center for (1) is also possible, since it is Topic-Focus (Theme-Rheme) structure that determines word order. This possibility is indicated in the second column of Table 3, labeling the sentence (1-ii). (On Hypothesis B, this choice is not possible.)

Step 3. The “expected negation” of (1-i) would be (28).

(28) \**Kolja ne ∅ v Londone.*

But this sentence is ungrammatical, as marked in column 5 of Table 3.

Step 4. In the absence of the possibility of (28), a speaker who wants to deny that Kolja is in London on structure (1-i) while preserving Topic/Comment and Perspective Structure must use syntactic Constituent Negation, giving (2). As we argued above, this can be considered a good “pragmatic negation” of (1) in such a context.

Step 5. If the affirmative sentence has structure (1-ii), then the contradictory negation of (1) can be expressed by (3) while preserving Topic/Comment and Perspective Structure.

In cases where it is clear that it is natural to make Location the Perspectival Center, (3) seems to be the preferred choice; where that is not natural, (2) is preferred. Often both are possible. The difference between the two choices is shown in the third and fourth columns of Table 3.

**Table 3**

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Propositions → ----- Classes of situations ↓	(1-i) <i>Kolja v Londone</i> NP=Topic NP=Persp. Ctr	(1-ii) <i>Kolja v Londone</i> NP=Topic Loc= Persp. Ctr	(2) <i>Kolja ne v Londone</i> C-Neg; NP=Topic NP= Persp. Ctr	(3) <i>Koli net v Londone</i> S-Neg; NP=Topic Loc= Persp. Ctr	(n9) * <i>Kolja ne ∅ v Londone</i> S-Neg; NP=Topic, NP= Persp. Ctr
Kolja Persp Ctr Kolja in Lon.	True	# (True)	False	# (False)	False but *
Kolja Persp Ctr Kolja not in Lon.	False	# (False)	<b>True and OK</b>	# (True)	True but *
London Persp Ctr Kolja in Lon.	# (True)	True	# (False)	False	# (False) and *
London Persp Ctr Kolja not in Lon.	# (False)	False	# (True)	<b>True and OK</b>	# (True) and *

In Table 3a, we show the case for sentence (2), where we keep the information structure and Perspective Structure of (1-i) and use Constituent Negation. In the chart, we have deleted the rows with infelicitous interpretations.

**Table 3a**

	<b>1</b>	<b>3</b>
Propositions → ----- Classes of situations ↓	(1-i) <i>Kolja v Londone</i> NP=Topic NP=Persp. Ctr	(2) <i>Kolja ne v Londone</i> C-Neg; NP=Topic NP= Persp. Ctr
Kolja Persp Ctr Kolja in Lon.	True	False
Kolja Persp Ctr Kolja not in Lon.	False	<b>True and OK</b>

In Table 3b, we show the case for sentence (3), where we have the Perspective Structure of (1-ii) and use syntactic Sentential Negation. We show both the construal (1-i) in column 1, and construal (1-ii) in column 2, which would match that of (3) as show in column 4.

**Table 3b**

	1	2	4
Propositions → ----- Classes of situations ↓	(1-i) <i>Kolja v Londone</i> NP=Topic NP=Persp. Ctr	(1-ii) <i>Kolja v Londone</i> NP=Topic Loc= Persp. Ctr	(3) <i>Koli net v Londone</i> S-Neg; NP=Topic Loc= Persp. Ctr
Kolja Persp Ctr Kolja in Lon.	True	# (True)	# (False)
Kolja Persp Ctr Kolja not in Lon.	False	# (False)	# (True)
London Persp Ctr Kolja in Lon.	# (True)	True	False
London Persp Ctr Kolja not in Lon.	# (False)	False	<b>True and OK</b>

In conclusion, we have argued that while (3) may not be an Existential sentence, we do not consider it an accident that (3), like Existential sentences, suggests a ‘Perspective’ or ‘Observer’ centered ‘in London’ (e.g. it is natural if the speaker is, or imagines the situation from the perspective of being, ‘in London’), and remarks on the absence of Kolja; sentence (2) resists such a perspective. We have argued that either of these negations can become the preferred one in a given context in the absence of the all-purpose general negation caused by the defectiveness of the verb *byt’* ‘be’. While the story remains incomplete in the absence of a better understanding of the interaction of syntactic, semantic, and pragmatic “preferences”, it is clear that closer attention to the fine-grained semantics and pragmatics of negation and of *be*-sentences can help us to understand and resolve the puzzles of such apparently imperfect matches between affirmative and negative *be*-sentences.

#### Appendix: Hypothesis B. Existential vs. Locative and ‘Mixed Cases’.

We begin with some background relevant to Hypothesis B.

There have been a number of competing approaches to the Existential-Locative distinction in Russian, some concentrating on syntax, a few on semantics. Western syntactic approaches to Russian intransitive Gen Neg sentences mainly concentrate on the syntactic status of the NP argument, treating it an underlying object or least as more object-like at a relevant level of structure, as in the early versions of the Unaccusativity hypothesis in Chvany (1975) (with a kind of Small Clause for BE-sentences), Perlmutter (1978), and Pesetsky (1982). Babby (1980) treated the NP argument as Theme (Topic) in Locative sentences and as part of the Rheme in Existential sentences. An approximate contemporary translation of Babby’s (1980) rule of Genitive marking is “If the subject does not escape from the VP via topicalization, and the verb can be an ‘existential verb’, then negation licenses Genitive marking of the subject and Existential Closure (Diesing 1992) applies.”

Others have equally emphasized the different status of the Locative argument in the two constructions, including Arutjunova and Širjaev (1983), Arutjunova (1997), and Kondrashova (1996). Borschev and Partee (2002a, 2002b, 2002c), (Partee and Borschev in press) introduce the notion of Perspective Structure as the key to the semantic difference between the two kinds of sentences, an approach that has much in common with the role of Paducheva’s (1992, 1997) Observer. On B&P’s approach, the Perspectival Center is on the NP in Locative sentences and on the Location in Existential sentences; on Paducheva’s approach, the same is

true of the Observer in negated sentences, but the class of sentences regarded as Existential is narrower.

All approaches in the literature agree that Locative sentences have “normal” subject-predicate structure, with the predicate predicating a location of the subject. The Existential sentences have a ‘marked’ structure, with the NP in one way or another “demoted”; on some approaches, the Locative then has some subject-like properties (actually “subject” for Kondrashova.) For Babby, the semantico-pragmatic difference is a difference in Theme-Rheme structure; for Borschev and Partee, it is a difference in Perspectival structure; for Paducheva, Neidle, Bailyn, and others, there is a difference in “referential status” of the NP, at least in the negative case, where a Gen-marked NP is less referential (less presuppositional) and more quantificational.

The “typical” Existential “be” sentences (26a-b) from the list in Kondrashova (1996) share a cluster of five properties,  $(\exists-i - \exists-v)$  in (29). And the “typical” Locative “be” sentences (1) and (4a) from that list share a complementary set of five properties (L-i – L-v).

- (29)  $(\exists-i)$  The verb form in the present tense is *est’*;  $(\exists-ii)$  The NP argument is indefinite;  $(\exists-iii)$  The LOC argument is initial (presumably Topic on neutral intonation);  $(\exists-iv)$  The negation of the sentence definitely uses *net* and GenNeg;  $(\exists-v)$  The sentence is understood to assert the existence of instances of NP in the given LOCation, that is, it has the semantics we typically associate with Existential sentences.

- (L-i) The verb form in the present tense is  $\emptyset_{be}$ ; (L-ii) The NP argument is definite; (L-iii) The NP argument is initial (presumably Topic); (L-iv) There are disagreements about what the negation of the sentence is; (L-v) The sentence is understood to assert the location of the referent of the NP, whose existence is presupposed, that is, it has the semantics we typically associate with Locative sentences.

But the negative sentences (3) and (25) present something of a ‘mixed case’; although the NP is definite and initial, the use of *net* and Gen Neg rather than *ne* with  $\emptyset_{be}$  (a combination that is evidently syntactically blocked in these sentences) is usually a property of Existential sentences. In Partee and Borschev (in preparation), several other ‘intermediate cases’ are discussed, including the following:

- (30) V Moskve Kolja.  
in Moscow Kolja-NOM  
‘Kolja is in Moscow.’
- (31) V Moskve u nas Kolja.  
in Moscow at us Kolja-NOM  
‘In Moscow Kolja is ‘at our disposal’.’ / ‘In Moscow we have Kolja.’
- (32) V Moskve u nas est’ Kolja.  
in Moscow at us is Kolja-NOM  
‘In Moscow there’s Kolja ‘at our disposal’.’

The conclusion suggested there is that the division into Existential vs. Locative sentences is not black-and-white, and that a variety of separable features of structure and interpretation are involved, which typically but not always cluster together.<sup>11</sup> We do not try to go into any

<sup>11</sup> The same range of examples suggests that distinctions in Perspective Structure, in Topic-Comment structure, and in “Predication structure” (Bailyn 2004, Bowers 1993) can often achieve such similar effects that it is

detail in this presentation, but simply assert B&P would predict that (3) may have some semantic as well as syntactic properties in common with Existential sentences.

From this viewpoint, one might assert that when (3) is described as the natural negation of (1), the perspective that is marked for (1), namely with Location as Perspectival Center, becomes the unmarked perspective. In the case of (1), it is possible (often with change of intonation) to have the Location as Topic; the sequence of examples in (30-32) are all most naturally interpreted with the Location as Topic, and at least (32) and possibly (31) are also interpreted with the Location as Perspectival Center<sup>12</sup>.

But on Hypothesis B, one is forced to say that the Perspective Structure is different in (1) and (3); one of the co-authors considers that to be a not unusual or unnatural state of affairs; some of the co-authors consider that a reason to prefer Hypothesis A, while acknowledging that neither hypothesis has a complete account of all the facts we are aware of.

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difficult to argue which kind(s) of structure is/are correlated with which differences in syntactic form (overt vs. null copula, word order, Gen/Nom).

<sup>12</sup> One very relevant but difficult problem concerns the existence of Existential sentences with null copula alongside Existential sentences with *est'*; this possibility has been argued for by both Chvany (Chvany 1975) and Kondrashova (Kondrashova 1996). For Kondrashova, an Existential sentence must have an indefinite subject; we argue that that property is not an absolute requirement, and that (32) is definitely an Existential sentence and (31) probably also.