Russian has a very frequent type of sentence, known as bi-nominative: Rim – stolica Italii lit. ‘Rome capital Italy’s.’ In this connection, the following well-known problem emerges: What is the syntactic subject and what is the syntactic predicate in such a sentence? The answer to this question, apparently simple, but in fact very tricky, lies in a semantic analysis of bi-nominative sentences.

I. Bi-nominative Sentences in Russian

A Russian bi-nominative sentence has a “kernel” consisting of two Noun Phrases in the nominative [= NP\textsubscript{NOM}], with or without an explicit form of the verb BYT´ ‘be’ between them. In other words, both the syntactic subject and the syntactic predicative\(^1\) of a bi-nominative sentence are NP\textsubscript{NOM}s:

(1) a. Moj syn\textsubscript{NOM} inžener\textsubscript{NOM} lit. ‘My son engineer’ [= ‘My son \textbf{is} an engineer’].
    b. Svoistvo\textsubscript{NOM} 5 – sledstvie\textsubscript{NOM} sledujuščego fakta lit. ‘Property 5 corollary following fact’s’ [= ‘Property 5 \textbf{is} a corollary of the following fact’].

\(^1\) The predicative is the nominal part of a syntactic predicate formed by the verb BE (or a similar one) and a noun/an adjective/an infinitive.
c. *Rim*<sub>NOM</sub> – *stolica*<sub>NOM</sub> *Italii* lit. ‘Rome capital Italy’s’ [= ‘Rome is Italy’s capital’].

d. *Èti ljudi*<sub>NOM</sub> – *naši druz´ja*<sub>NOM</sub> lit. ‘These people our friends’ [= ‘These people are our friends’].

Such sentences, when they do not have an overt copula, are also known as “nominal sentences” (Rus. *imennye predloženija*).

The present discussion is based on the following crucial fact:

In Russian, a bi-nominative sentence [= BS] necessarily contains a finite form of the verb *BYT´*: in cases where there is no overt verb form, a BS includes a zero wordform of *BYT´*, this zero expressing the present indicative of ‘be’.

Thus, the Surface-Syntactic Structures [= SSyntSs] of sentences in (1) all contain the verb *BYT´* as their top node; for instance, (1a) has the SSyntS shown in (2):

$$(2) \quad \text{BYT'}_{\text{IND, PRES}} \rightarrow \text{MOJ} \leftarrow \text{SYN}_{\text{SG}} \rightarrow \text{INŽENER}_{\text{SG}}$$

In the present tense of the indicative, *BYT´* has the zero wordform $\emptyset_{\text{BYT', IND, PRES}}$; in all other moods and tenses or under an emphatic stress this verb has overt forms:

$$(3) \quad \text{Moj syn } \text{byl inžener/inženerom} \ ‘\text{My son was an engineer}’ \sim \text{Moj syn } \text{budet inženerom} \ ‘\text{My son will be an engineer.}’ \sim \text{Moj syn } \text{byl by inženerom} \ ‘\text{My son would be an engineer.}’ \sim \text{Bud´ inženerom!} \ ‘\text{Be an engineer!}’ \sim \text{Moj syn i est´ inžener } \approx \ ‘\text{My son is the engineer.’}$$

For zero wordforms and other linguistic zeros, see Mel’čuk (1974b; 1979; 2002; 2006, 469ff.).

However, this does not mean that I claim the presence of a zero copula form in any BS of any language. Far from it:

- Some languages do not have a copula verb (= ‘be’) at all; in these languages, BSs are simply without a main verb. One such language is, for instance, Lushootseed (Salishan, British Columbia, Canada).
• Other languages have a copula, but also feature special predicative forms of nouns (and adjectives), which – under particular conditions – are used instead of the copula; as a result, many sentences do not have the main verb. Such are, for instance, Turkic languages; e.g., Turkish says Demir metal+dır lit. ‘Iron metal.is’ (here and below, a dot between English glosses indicates that they correspond to one foreign word or one meaning).

• Still some other languages have a copula, but at the same time allow for BSs without copula, semantically opposed to sentences with one: copula-less sentences, i.e., BSs, express general truths, while those with a copula state particular facts, as in Latin Omnia praeclara rara lit. ‘All excellent.things rare’ vs. Haec preclara sunt rara ‘These excellent.things are rare’ (Benveniste 1950). This situation is typical of Classical languages – Latin, Ancient Greek, and Sanskrit.

I am saying only that Russian BSs always contain the verb бы́ть ‘be,’ represented in the present of the indicative by a zero wordform. As a result, the general scheme of Russian BSs is

\[
\text{NP}_1\text{-NOM} + \text{бы́ть} + \text{NP}_2\text{-NOM}
\]

II. The Problem Stated: Preliminary Formulation

The syntactic structure of Russian BSs is the object of a series of interesting papers (Padučeva 1979a, 1979b, 1987; Padučeva and Uspenskij 1979, 1997). The authors examined BSs such as in (4):

(4) a. (i) Stolica Gollandii – Amsterdam ‘The capital city of Holland is Amsterdam’.
   (ii) Kratkost’ – sestra talanta ‘Brevity is a sister of talent’.
   (iii) Moj načal’nik – Maša ‘My boss is Masha’.
   (iv) Moja zarplata – 70 000 dollarov ‘My salary is $70,000’.

b. (i) Èto životnoe – mlekopitajuščee ‘This animal is a mammal’.
   (ii) Kity – mlekopitajušcie ‘Whales are mammals’.

c. (i) Ètot čelovek – Maša ‘This person is Masha’.
   (ii) Èto Maša ‘This is Masha’.

d. (i) Fizkul’tura – èto dolgoletie ‘Physical.exercise is longevity’.
   (ii) Xleb – èto svoboda ‘Bread is liberty’.

e. Kindza – èto koriandr ‘Kindza is coriander’.

It is not obvious which NP\textsubscript{NOM} in such a sentence is the syntactic subject and which is the nominal part of the syntactic predicate, i.e., the “predicative.” Padučeva and Uspenskij formulate the problem as follows:

What are the operational criteria that could ensure a univocal and rigorous distinction between the subject and the predicative NP\textsubscript{NOM} in Russian BSs?

They convincingly show that the five criteria traditionally used to establish this distinction are not valid in certain cases and thus are not sufficient.

- **Semantic criterion:** The syntactic predicate normally denotes a semantic predicate ‘P’ predicated of the subject; in a BS, one NP\textsubscript{NOM} – the subject – must then be an argument of the other NP\textsubscript{NOM} (which means ‘P’). But in many BSs none of the two NP\textsubscript{NOM}s is semantically predicated about the other: e.g., (4c–e).

- **Communicative criterion:** The syntactic predicate expresses the Rheme of the sentence, and the syntactic subject – its Theme. It is well known that in Russian the syntactic and communicative roles are logically independent: almost any element of the sentence may appear in almost any communicative role. Thus, in both sentences *Ivan – moja edinstvennaja nadežda* ‘Ivan is my only hope’ and *Moja edinstvennaja nadežda – Ivan* ‘My only hope is Ivan’ the subject is *Ivan*,\(^2\) although in the first sentence the noun *Ivan* is the Theme and in the second, the Rheme.

- **Word order criterion:** The preceding NP\textsubscript{NOM} is the subject. But in (4a, iii) it is difficult to consider *moj načal’nik* as the subject: first, it is predicated about Masha; second, in the past or the future this NP appears in the instrumental (see below): *Moj načal’nik + om\textsubscript{INSTR} byla/budet Maša*. In the sentences *Moj brat – strannyj čelovek* and *Strannyj čelovek moj brat!* (both meaning ‘My brother is a strange person’), *moj brat* is obviously the syntactic subject, independently of its position.

- **Instrumental case criterion (Peškovskij 1934, 215ff.):** The predicative is the NP\textsubscript{NOM} that gets the instrumental case when the BS is transferred into the past or the future tense.\(^3\) But in several cases – for instance in (4a, iv), (4c, ii) and (4d–e.) – none of the two NP\textsubscript{NOM}s can appear in the instrumental.

\(^2\) This can be immediately seen if the sentences are put into the past tense: *Ivan byl\textsubscript{MASC} moj edinstvennoj nadeždoj* and *Moj edinstvennoj nadeždoj byl\textsubscript{MASC} Ivan* (the subject remains in the nominative, while the predicative phrase receives the instrumental).

\(^3\) The verb ‘\textsc{byt’}’ requires that the predicative NP (= its DSynt-actant \textsc{II}) be in the nominative if ‘\textsc{byt’}’ is in the present indicative; otherwise, the predicative NP may or must be in the instrumental.
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(Note, however, that the NP_NOM that can alternate with the NP_INSTR is necessarily the predicative.)

• Copula agreement criterion: The subject is the NP_NOM with which the copula agrees. But in (4c, ii) the copula agrees with Maša; is èto the predicative?

As shown in Padučeva (1987) and Padučeva and Uspenskij (1997), in Russian the main verb never agrees with the subject pronouns ÈTO, KTO and ČTO (Èto byl+a_fem Maša / Èto byl+Ø_masc Ivan ‘This was Masha/Ivan’; KTO byl+a Maša? / KTO byl+Ø Ivan? ‘Who was Masha/Ivan?’). If the subject is an NP_NOM used autonomously, the copula invariably takes the singular form of the neuter gender (Motja byl+o_neu ego prozviščem_neu / ego kličkoj_fem ~ *Motja byl+a_fem ego prozviščem_neu / ego kličkoj_fem ‘Motya was his nickname’; in Motja byl+o_neu ego ljubimo prozvišče_neu ~ Motja byl+a_fem ego ljubimaja klička_fem ‘Motya was his preferred nickname’, the nouns prozvišče and klička, both meaning ‘nickname’, are subjects).

Already in 1924, Jespersen ([1924] 1965) analyzed similar BSs in several European languages and put forward the idea of using in difficult cases considerations of “greater specificity or definiteness”: the subject is supposed to be more specific or more definite than the predicative. Building upon this idea, Padučeva and Uspenskij propose – instead of the above-mentioned insufficient criteria – that the referential status of both NP_NOMs serve as the criterion for their syntactic roles (for the referential status of nominal phrases, see Padučeva (1979)). Namely, Padučeva and Uspenskij (1997) claim the following:

In a Russian BS,

1. if one of the two NP_NOMs is more referential than the other one, this NP_NOM is the subject;
2. if the referentiality of the two NP_NOMs is equal, then the subject is the less informative one;

---

4 This èTO = ‘it/this’ (èTO1) is of course different from the particle ÈTO (= ÈTO1), which is used with the copula: Opasnosti – èTO byla_fem ego stixija_fem lit. ‘Dangers – this was his element’. (Russian has two more lexemes ÈTO: the demonstrative pronoun ÈTO1 seen in [–What is all this racket? – ÈTO Ivan tam mebel’ dvigat lit. ‘This Ivan is moving furniture there’ = ‘This is Ivan who is moving furniture there’; and the particle ÈTO1, used as rheme focalization marker: [–Did you break the window? – Net, èTO Ivan razbil okno ‘It is Ivan who broke the window.’) See Kimmelman (2009). The particle VOT, which is sometimes considered on a par with ÈTO1, should not be examined in connection with the zero form of BYT’: VOT does not combine with any overt form of this verb as a subject (*VOT bylo moë želanie ‘Here was my wish’). VOT is a predicative particle, similar to the French quasi-verbs VOICI et VOILA ‘here is/are’: Vot Ivan/kniga ‘Here is Ivan/the book’. (A different VOT is seen in vot ètoj ‘exactly this’.)
3. If the two NP_NOMs do not show a clear-cut difference of referentiality/informativeness, there is no point of establishing the Syntactic Structure for this BS: the difference between the NP_NOMs is not parallel to the differences between “normal” syntactic subjects and predicates in all other sentences.

Padučeva’s and Padučeva and Uspenskij’s description of BSs in Russian is precise and elegant; yet over the years I have been feeling a certain degree of discomfort with their results for two reasons.

- First, why should one bother at all to determine what is the subject and what is the predicative in a “ready” sentence? The analytic, or interpretational, approach always has been suspicious to me. I prefer descriptions carried out with an eye to how to produce such BSs. This means that first of all we have to establish their semantic structures.
- Second, if Padučeva and Uspenskij rightly reject communicative considerations as a means for determining the syntactic subject in a Russian BS, then why should we admit the referential status of NPs as such a means? The referential status is as perpendicular to the syntactic roles as is the communicative structure.

These two doubts have led me on a search of a different solution.

III. The Problem Stated: Final Formulation

The solution to be proposed is stated within the Meaning-Text approach, whose main principles and conventions are taken to be known to the reader (see, e.g., Mel’čuk 1974a; 1988, 43–91; 2009). The Syntactic Structure [= SyntS] of a sentence S is only an intermediate representation between its Semantic Structure [= SemS] and its Deep-Morphological (linear) Structure [= DMorphS]. Therefore, in order to decide on the syntactic status of nominative phrases in a BS S we have to consider the transition from S’s SemS to its DMorphS. As a result, the problem of the description of Russian BSs is formulated as follows:

How should the SemS of a Russian BS look, and what semantic rules are needed in order to allow for S’s correct construction, in particular, for a correct assignment of the syntactic roles of subject and predicate to both NP_NOMs?

According to the Meaning-Text approach, no full-fledged Russian sentence can be without a syntactic subject and a predicate (I leave aside all “minor type sentences,” including so-called naming sentences, Rus. nazyvnye
predloženija). Consequently, I cannot have recourse, as Padučeva and Uspenskij (1997) do in some cases, to the notion of syntactic indeterminacy; compare as well Yokoyama’s (1986, 227–8) proposal that sentences of the type Èto moj syn it. ‘This my son’ have no subject. I cannot simply say that a BS – any type of BS – shows no distinction between the subject and the predicative.

To answer the above question, I have to indicate the SemS for each type of Russian BS and sketch the semantic rules that will be applied to these SemSs to produce the corresponding Deep-Syntactic Structures (the transition DSyntS ⇔ SSyntS is straightforward from the viewpoint of our topic: the SSynt-subject always stems from DSynt-actant I).

IV. The Solution

Based on the data in Padučeva’s (1987) and Padučeva and Uspenskij’s (1997) papers, I propose a description of Russian BSs relying on a very simple key point:

There must be a particular semanteme or the absence of a semanteme in the SemS for each type of Russian BSs.

The SemSs and the Sem-rules illustrated below are written in accordance with the general framework of the Meaning-Text theory; the shading in the rules specifies the context – elements that are necessary for the rule to apply, but are themselves not affected by it.

The following six major types of Russian BSs can be semantically distinguished.

1. One of the two NP NOMs is semantically a predicate or a quasi-predicate (boldfaced below) and the other NP NOM is its first argument: Pričina ego gibeli – neponimanie situacii ‘The cause of his death is a misunderstanding of the situation’, where we have ‘be.the.cause.of[misunderstanding1; death2]’ [the subscripts specify the arguments of the predicate].

2. One of the two NP NOMs is the name of a class (boldfaced) and the BS states the inclusion of the denotation of the other NP NOM into this class – as an element or as a subclass; in the SemS, the corresponding meanings are linked by the semanteme ‘X is.included.in Y’ (Kit – mlekopitajuščee, ‘The whale is a mammal’ or Kity – mlekopitajuščie, ‘Whales are mammals’).

3. The two NP NOMs are linked by the semanteme ‘X identifies Y for the Addressee’: Èto X MašaY ‘This is Masha.’
4. The two NP\textsubscript{NOM}\textsuperscript{S} are linked by the semanteme ‘X entails Y’: \textit{Direktorstvo\textsubscript{X} – èto odni neprijatnosti\textsubscript{Y}}, lit. ‘Directorship [is] only troubles.’

5. The two NP\textsubscript{NOMs} are linked by the semanteme ‘X is.similar.to Y’: \textit{Žensčina\textsubscript{X} – ognennyj napitok\textsubscript{Y}}, lit. ‘Woman [is] fire potion’ [V. Brjusov].

6. The two NP\textsubscript{NOM}s are linked by the semanteme ‘X means [the same as] Y’ (\textit{Koriandr\textsubscript{X} – èto kindza\textsubscript{Y}}, ‘Coriander is kindza’).\textsuperscript{5}

These six types of BSs correspond to six different senses – and accordingly, to six different lexemes – of the Russian verb BYT’ ‘be’; let us consider those lexemes in turn. For each lexeme it is shown how to represent it in the SemS of the corresponding BS and what Lexicalization/Arborization rules are necessary for the transition “SemS ⇔ DSyntS.” (Lexicalization and Arborization are two major complex operations performed during the above-mentioned transition. Lexicalization ensures the selection of the appropriate lexical units for the given meaning, while Arborization organizes these units into an arborescent structure – i.e., the syntactic structure of the sentence-to-be.)

1. BYT’\textsuperscript{I.1} in the BS does not correspond to any semanteme in the starting SemS. This means that BYT’\textsuperscript{I.1} is semantically empty. It is a genuine copula: it is used not to express a meaning, but – in conformity with the rules of Russian syntax – to “verbalize” a non-verbal item which is semantically a (quasi-)predicate and thus supply the top node of the clause. Actually, BYT’\textsuperscript{I.1} is an element of the value of a support verb lexical function \textit{Oper\textsubscript{I}} or \textit{Func\textsubscript{I}}, depending on the type of the (quasi-) predicate under consideration.\textsuperscript{6}

In (4a, i), STOLICA ‘capital city’ expresses a binary quasi-predicate: ‘X\textsubscript{1} is.the.capital.city.of Y\textsubscript{2}’ (of type 1); the SemS of (4a, i) is given in (5):

\begin{equation}
\begin{array}{c}
\text{‘Amsterdam’} \\
\text{‘Gollandija’}
\end{array}
\end{equation}

\textsuperscript{5} The first two of the Russian BS types correspond to the Predicational type in Mikkelsen (2005, 48ff.), while the third one – to her Specificational, Equative and Identificational types.

\textsuperscript{6} On lexical functions, see Wanner 1996 and Mel’čuk 2007. Two lexical functions mentioned here are as follows:

- \textit{Oper\textsubscript{I}(L)} links Deep-Synt-actant \textit{A\textsubscript{I}} of \textit{L} to \textit{L} such that \textit{A\textsubscript{I}}(\textit{L}) is the \textit{A\textsubscript{I}}(\textit{Oper\textsubscript{I}(L)}) and \textit{L} itself is \textit{A\textsubscript{II}}(\textit{Oper\textsubscript{I}(L)});
- \textit{Func\textsubscript{II}(L)} links \textit{L} to Deep-Synt-actant \textit{A\textsubscript{II}} of \textit{L} such that \textit{L} itself is \textit{A\textsubscript{I}}(\textit{Func\textsubscript{II}(L)}) and \textit{A\textsubscript{II}}(\textit{L}) is \textit{A\textsubscript{II}}(\textit{Func\textsubscript{II}(L))}.

This SemS undergoes Arborization by means of two SemS-to-DSyntS rules, one for Sem-dependency 1 and the other, for Sem-dependency 2; only the first rule is presented in (6).

(6) \[
\begin{array}{c}
P_1 \\
\downarrow \\
\text{X}
\end{array}
\rightleftharpoons
\begin{array}{c}
\text{Oper}_1 \\
L(\text{X}) \\
L(P_1)
\end{array}
\]

‘P’ stands for any predicative semanteme of type 1, and ‘X,’ for any semanteme; L(‘P’) and L(‘X’) mean “lexical expressions of ‘P’ and ‘X’”; the underscoring indicates the communicatively dominant node.

The BS obtained in this way has AMSTERDAM as the subject. The linear arrangement of words is irrelevant in this respect: in Amsterdam – stolica Gollandii as well as in Stolica Gollandii – Amsterdam it is the noun AMSTERDAM that is the SSynt-subject. The word order expresses here the communicative organization: the first NP_NOM is the Theme of the sentence, and the second one, its Rheme. Oper_{1}(stolica) = BYT’1.1, javljat’ sja, so that we obtain:

**For stolica ⊆ Synt-Theme**

Stolica Gollandii – Amsterdam. ≡ Stolicej Gollandii javljaetsja Amsterdam.

**For AMSTERDAM ⊆ Synt-Theme**

Amsterdam – stolica Gollandii. ≡ Amsterdam javljaetsja stolicej Gollandii.

The same description applies to sentences (4a, ii) and (4a, iii), with the quasi-predicates SESTRA and NAČAL´NIK. But sentence (4a, iv) is slightly different. Its SemS appears as (7):

(7) \[
\begin{array}{c}
\text{zarplata} \\
\downarrow \\
\text{ja = l’} \\
70 000 dollarov
\end{array}
\]

The necessary Arborization rule for Sem-dependency 2 is also different:

(8) \[
\begin{array}{c}
P_2 \\
\downarrow \\
\text{X}
\end{array}
\rightleftharpoons
\begin{array}{c}
\text{Func}_2 \\
L(P_2) \\
L(X)
\end{array}
\]

Here, zarplata [= L(‘P’)], a quasi-predicate of type 2, is the SSynt-subject, and 70 000 dollarov, the predicative part of the SSynt-predicate. Func_{2}(zarplata) = BYT’1.1, sostavljat’, which gives (in the past tense) Moja zarplata byla (sostavljala) 70 000 dollarov.
2. **BYT** I.2 corresponds to the semanteme ‘be.included’. BSs (4b, i) and (4b, ii) state the inclusion of the denotation of one NP\textsubscript{NOM} into the class denoted by the other, the first as an element, and the second, as a subclass.

(9) a. ‘byt’\textsubscript{vključen} = ‘be.included’

```
1 2
1

životnoe mlekopitaajušee {CLASS}
```

b. ‘byt’\textsubscript{vključen} = ‘be.included’

```
1 2
1

{CLASS} kit mlekopitaajušee {CLASS}
```

The relevant Lexicalization and Arborization rules are shown in (10):

(10) a. ‘byt’\textsubscript{vključen} $\leftrightarrow$ **BYT** I.2

```
<table>
<thead>
<tr>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>L(P)\textsubscript{FIN}</td>
</tr>
<tr>
<td>X</td>
</tr>
<tr>
<td>L(X)</td>
</tr>
</tbody>
</table>
```

Arborization rule (10b) states that Sem-actant 1 of any ‘P’ is implemented by DSynt-actant 1 of L(‘P’), if the the result of the Lexicalization of ‘P’ — that is, L(‘P’) — is a finite verb.

In accordance with the proposal in Padučeva (1979a and 1985), the semantic representation of a sentence includes the Referential Structure, where the referential status of each semanteme or configuration of semantemes is explicitly specified. Therefore, the SemSs in (9) are supplied with the indication that here ‘mlekopitaajušee’ = ‘mammal’ refers to a class.

3. **BYT** I.3 expresses the semanteme ‘X identifies Y for the Addressee or himself’. It is common to speak of “identification” relation and “identity sentences”; in this case, both NP\textsubscript{NOM}s denote the same individual entity or fact. Following a respectable tradition (starting in Russian linguistics, probably, with Arutjunova (1976) and developed by Weiss (1978), Padučeva and Uspenskij (1979, 1997) and Padučeva (1987)), I postulate a special semanteme: ‘X identificiruet Y dlja Adresata ili dlja sebja $\equiv$ X identifies Y for the Addressee/ for himself’; the SemS of (4c, i) can then be sketched as follows:

(11) ‘identificirovat’ = ‘identify’

```
1 2
1

ètot Maša čelovek
```

The Sem-actant $X$ of the semanteme ‘$X$ identifies $Y$’ corresponds to the more informative element, that is, to the element that brings more information to the Addressee. Crucially, the BSs of this type have two important properties (Weiss 1978): 1) ‘$X$’ and ‘$Y$’ in this case must be coreferential; 2) according to the Speaker, ‘$X$’ is better known to the Addressee than ‘$Y$’.7

This semanteme is expressed in Russian by the verb $\text{BYT}',$ and the corresponding Lexicalization rule is (12):

\[ (12) \quad \text{‘identificirovat’} \quad \Leftrightarrow \quad \text{BYT}' \]

The Arborization rule to be used here and in the next case is (10b).

As in other cases, both NP$_{\text{NOM}}$s of this BS can exchange their communicative roles:

\[ (13) \quad \text{a. } \text{Maša}_{\text{SSynt-T}} \quad \langle i \; \text{est} \rangle \; \text{ètot čelovek} \; \text{‘Masha is this person’}. \]
\[ \text{b. } \text{Ètot čelovek}_{\text{SSynt-T}} \quad \langle i \; \text{est} \rangle \; \text{Maša} \; \text{‘This person is Masha’}. \]

But in both of these BSs the subject is $\text{Maša}$: the verb $\text{BYT}$’$\text{I.3}$ agrees only with $\text{Maša}$ (in the feminine gender), and only the phrase $\text{ètot čelovek}$ can be put into the instrumental:

\[ (14) \quad \text{a. } \text{Maša}_{\text{SSynt-T}} \; i \; \text{byl} + \text{a}_{\text{FEM}} \; \text{èt} + \text{im čelovek} + \text{om} \; \text{‘Masha was this person’}. \]
\[ \text{b. } \text{Èt} + \text{im čelovek} + \text{om}_{\text{SSynt-T}} \; i \; \text{byl} + \text{a}_{\text{FEM}} \; \text{Maša} \; \text{‘This person is Masha’}. \]
\[ \text{c. } ^* \text{Maš} + \text{ej}_{\text{SSynt-T}} \; i \; \text{byl} + \text{Ø}_{\text{MASC}} \; \text{èt} + \text{im čelovek} + \text{om} \; \text{‘Masha was this person’}. \]
\[ \text{d. } ^* \text{Ètot čelovek}_{\text{SSynt-T}} \; i \; \text{byl} + \text{Ø}_{\text{MASC}} \; \text{Maš} + \text{ej} \; \text{‘This person is Masha’}. \]

4. NP$_{\text{NOM}}$s are linked by the relation ‘$X$ entails $Y’$. The SemS of (4d, i) is straightforward:

\[ (15) \quad \text{‘vlecˇ’ = ‘entail’} \]
\[ \text{‘fizkul’tura’ = ‘dolgoletie’} \]

The corresponding Lexicalization rule is (16):

\[ (16) \quad \text{‘vlecˇ’} \quad \Leftrightarrow \quad \text{BYT}$'\text{I.4}_{\text{IND, PRES}} \]

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7 A recent paper by Goddard and Wierzbicka (2008) proposes ‘specificalional $\text{BE}$’ as a new semantic primitive. To the extent that I am able to judge, their specificalional $\text{BE}$ corresponds to the Russian $\text{BE}$’$\text{I.3}$, introduced here.
5. NP NOMs are linked by the relation ‘X is.similar.to Y’. The SemS of Žizn’ – kopejka ‘Life is a cent’ [an adage] is straightforward:

\[
(17) \quad \text{'poxož' } = \text{ 'similar’}
\]

The corresponding Lexicalization rule is (18):

\[
(18) \quad \text{'poxož' } \equiv \text{ BYT'1.5, IND, PRES}
\]

6. NP NOMs are linked by the metalinguistic relation ‘X means Y’ ≡ ‘X is.a.synonym of Y’. The SemS of (4e) is shown in (19):

\[
(19) \quad \text{'značit’ } = \text{ 'be.a.synonym.of’}
\]

The corresponding Lexicalization rule is (20):

\[
(20) \quad \text{'značit’ } \equiv \text{ BYT'1.6, IND, PRES}
\]

Since the relation ‘X is.a.synonym.of Y’ is symmetrical (≡ ‘X and Y are synonyms’), the corresponding BSs are invertible: Kindza – èto koriandr ≡ Koriandr – èto kindza. The Speaker chooses the version according to his ideas about the Addressee’s knowledge.

V. The Russian Verb BYT’

The verb BYT’ was lexicographically described in much detail in Apresjan (1995, 2009). The author distinguishes 15 senses of this verb, that is, introduces 15 lexemes in the vocable BYT’. Our study, however, requires an addition of the following six lexemes of BYT’ (which partially coincide with Apresjan’s BYT’1.1 and BYT’1.2). To make clearer the differences between these lexemes, I will indicate some of their formal properties, without trying to be exhaustive or very consistent: only those properties are listed that help see the differences between the BYT’ lexemes. These are the following six properties:

1. Having or not a full paradigm
2. Having or not the form est’ in the present indicative
3. Possible parts of speech of X and Y
4. Possible cases of N_Y

5. Possibility of using the particles éto ≈ ‘this\textsubscript{N}’ and \textit{I} [emphasis]

6. Possible synonymous expressions

Examples are given only for BSs. In all the cases considered, \(NX\) is the syntactic subject of the verb.

The six lexemes \(\text{BYT}\text{'}\), which appear in BSs, are united inside the vocable \(\text{BYT}\text{'}\) under the rubric \(I\), since all of them are semantically based on the \(\text{BYT}\text{'}\)-copula, i.e., on \(\text{BYT}\text{'1,1}\), which constitutes the semantic bridge between them. The further lexemes of \(\text{BYT}\text{'}\) are, in accordance with Apresjan’s description, grouped as \(\text{BYT}'\text{II} ‘exist,’ \text{BYT}'\text{III ‘be located,’ etc.}

The present description covers neither the BS with numerals (\(Dva plus dva – četyre ‘Two plus two is four’\)) nor the syntactic phrasemes of the type \(Žena est’ žena\) lit. ‘Wife is wife.’ All illustrative sentences must be conceived as pronounced with the most neutral prosody.

\(\text{BYT}'\text{I.1 ‘X ist.1 I: 1) if Y is a predicate, then \text{BYT}'\text{I.1 is a semantically empty copula, or a purely structural word; 2) if Y is not a predicate, then \text{BYT}'\text{I.1 means ‘be.identical.with.’}

\textbf{Formal properties}

1. \(\text{BYT}'\text{I.1 can be in any form}

2. \(\text{BYT}'\text{I.1 has the form est’ in the present indicative – but only either in a formal definition (and only if X and Y are both expressed by nouns) or with the particle I}

3. \(X\) can be expressed by a noun, an infinitive and a subordinate clause; \(Y\) can be practically anything: a nominal, an adjectival, a prepositional phrase, an appropriate adverb, etc.

4. If \(\text{BYT}'\text{I.1 is not in the present indicative and Y = N, this \(N\) is preferably in the instrumental (\(N\) in the nominative sounds obsolescent or is colloquial)

5. The particles \(\text{ETO and I can be used with \text{BYT}'\text{I.1,\textsuperscript{8} but only if the subject NP precedes}

6. If \(X\) and \(Y\) both are nouns, the most current synonyms of \(\text{BYT}'\text{I.1 are JAVIJAT’\textsuperscript{’sja and OKAZYVAT’\textsuperscript{’sja

\(Amsterdam\textsubscript{X} – (\text{eto) stolica Gollandii. | Maša\textsubscript{X} – moj načal’nik/Moj načal’nik – Maša\textsubscript{X}

| Ego ljubov’\textsubscript{X} – prostaja prixot’ ‘His love is a simple whim’. | Osen’\textsubscript{X} – moë ljubimoe vremja goda ‘Fall is my favorite season’.

\(\text{BYT}'\text{I.2 ‘X ist.l an element/a subclass of class Y’ = ‘X is included into the class of Ys’}

\textsuperscript{8} The particle \textit{I} is used only with the overt form est’; this indication is part of \textit{I}’s syntactics.
Formal properties

1. BYT’1.2 can be in any form
2. BYT’1.2 has the form est’ in the present indicative – but rather in a formal definition
3. X and Y can be expressed only by nouns
4. If BYT’1.2 is not in the present indicative and Y = N, this N_Y must be in the instrumental
5. The particle ĖTO can, but the particle I cannot, be used with BYT’1.2
6. The most current synonym is JAVLIJAT’ŠJA

Maša_X – staraja ženščina ‘Masha is an old woman’. | Akuly_X – (eto) ryby, a ne mlekopitajuščie ‘Sharks are fish and not mammals’. | Kanada_X – bol’šaja strana ‘Canada is a big country’.

BYT’1.3 ‘X’s referent is I.1 the same as that of Y, but X is better known to the Addressee than Y’ = ‘X identifies Y for the Addressee’

BSs with BYT’1.3 are notorious identity sentences (Padučeva 1987).

Formal properties

1. BYT’1.3 can be in any form
2. BYT’1.3 has the form est’ in the present indicative – but only for the emphasis on X
3. X and Y can be expressed only by nouns
4. If BYT’1.3 is not in the present indicative, N_Y may be in the instrumental
5. The particles ĖTO and I both can be used with BYT’1.3
6. The most current synonyms are BYT’1.1 NE ĖTO INOE, KAK〈NE KTO INOJ, KAK〉, JAVLIJAT’ŠJA and PREDSTAVLIJAT’ SOBOJ

Èto (byla) Maša_X ‘This was Masha’. | Maša_X i est’ naš gost’ ‘Masha is our guest’. | Marazm_X – naš marksizm ‘Marasm is our marxism’/Marazm_X byl naš marksizm (našim marksizmom) ‘Marasm was our marxism NOM/INSTR’. | Moë ljubimoe vremja goda – osen’_X ‘My favorite season is fall’. | Ego povedenie_X – obyčnaja bor’ba velikodušija i tščeslavija ‘His behavior is trivial struggle between generosity and vanity’. | Slava_X – jarkaja zaplata na vexom rubišče pevca ‘Glory is but a bright patch on the worn-our clothing of a poet’. | Utrennjaja zvezda_X – Ėto Venera ‘The morning star is Venus’.

BYT’1.4 ‘X is I.1 a sufficient condition for Y’ = ‘X entails Y’

Formal properties

1. BYT’1.4 can be in any form
2. BYT’1.4 has the form est’ in the present indicative
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3. X and Y can be expressed only by nouns
4. If BYT’1.4 is not in the present indicative, N_Y may be in the instrumental
5. The particle ÉTO is obligatory with BYT’1.4 in the present (except for some set expressions); the particle I cannot be used
6. The most current synonyms are ZNAČ Ð and OZNAČAT’

Kukuruza_X segodnya – èto kolbasa zavtra [N. Xruščev] ‘Corn today is sausage tomorrow.’ | Fizkul’tura est’ dolgoletie ‘Physical exercise is longevity.’

BYT’1.5 ‘X isI.1 similar to Y’

Formal properties

1. BYT’1.5 can be only in the present indicative
2. BYT’1.5 has no form est’ in the present indicative
3. X and Y can be expressed only by nouns
4. The nominative only
5. The particle ÉTO is possible with BYT’1.5 in the present (except for some set expressions)
6. _______

Slova_X – serebro, a molčan ‘e X – zoloto ‘Words are silver, but silence is gold.’

BYT’1.6 ‘X isI.1 a synonym of Y’ = ‘X means Y’

Formal properties

1. BYT’1.6 can be only in the present indicative
2. BYT’1.6 has the form est’ in the present indicative – but rather in a formal definition
3. X and Y must be of the same part of speech
4. The nominative only
5. The particle ÉTO is obligatory with BYT’1.6 (except for some set expressions); the particle I cannot be used
6. Synonymous expressions: ZNAČ Ð; ÉTO TO ŽE SAMOE, ČTO…; ÉTO DRUGOE NAZVANIE DLJA…

Suffiks_X – èto affiks, kotoryj sleduet za kornem ‘A suffix is an affix that follows the root’. | Tarxun_X – èto èstragon ‘Tarkhun is estragon’.

For better surveyability, the properties of the different lexemes of the Russian copula BYT’ can be presented in the following table:
### Table 4.1. Properties of the six lexemes of the verb BYT´ ‘be’

<table>
<thead>
<tr>
<th>Paradigm</th>
<th>est ´form</th>
<th>Part of speech of X/Y</th>
<th>Case of NY</th>
<th>ÈTO/I</th>
<th>Synonyms</th>
</tr>
</thead>
<tbody>
<tr>
<td>BYT´1.1</td>
<td>full</td>
<td>{+}</td>
<td>X: N, V_{INF}, CLAUSE</td>
<td>{NOM/INSTR}</td>
<td>ÈTO, I</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Y: anything</td>
<td></td>
<td>JAVLJAT´SHA, OKAZAT´SHA</td>
</tr>
<tr>
<td>BYT´1.2</td>
<td>full</td>
<td>{+}</td>
<td>X: N, Y: N</td>
<td>INSTR</td>
<td>ÈTO</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>JAVLJAT´SHA</td>
</tr>
<tr>
<td>BYT´1.3</td>
<td>full</td>
<td>{+}</td>
<td>X: N, Y: N</td>
<td>INSTR</td>
<td>ÈTO, I</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BYT´ NE ĖTO INOE, KAK</td>
</tr>
<tr>
<td>BYT´1.4</td>
<td>full</td>
<td>+</td>
<td>X: N, Y: N</td>
<td>INSTR</td>
<td>ÈTO!</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ZNAČIT´, OZNAČAT´</td>
</tr>
<tr>
<td>BYT´1.5</td>
<td>present only</td>
<td>−</td>
<td>X: N, Y: N</td>
<td>NOM</td>
<td>ÈTO</td>
</tr>
<tr>
<td>BYT´1.6</td>
<td>present only</td>
<td>{+}</td>
<td>PoS(X) = PoS(Y)</td>
<td>NOM</td>
<td>ÈTO!</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ZNAČIT´, ÈTO TO ŽE SAMOE, ČTO</td>
</tr>
</tbody>
</table>

Note: The curly brackets {…} mean ‘possible under specific conditions’; the symbol ! means ‘obligatory’.
The inventory of different byt’ found in BSs does not claim exclusivity: there can be other senses not covered by it.9 This, however, will not affect the solution proposed: we will simply have to add another lexeme.

Ambiguity between different byt’ is of course possible: two different BSs can physically coincide, i.e., have identical signifiers. Thus, sentence (21) can express two different SemSs:

(21) Ivan – ubijca lit. ‘Ivan murderer’

means either ‘Ivan is a murderer’ (byt’ is here byt’ I.1, since the quasi-predicate ‘murderer’ has ‘Ivan’ as its sema X1), or ‘Ivan is the murderer’ (byt’ is here byt’ I.3: the name Ivan identifies to the Addressee the murderer known to him).

In both readings, Ivan is the syntactic subject, but only in the second case we can use i est’: Ivan i est’ ubijca means only ‘Ivan is the murderer’. (See Weiss (1978) on the manifestation of this difference in a language with articles.)

Another example (from Padučeva 1979b, 46): the BS in (22)

(22) Zavedujuščij laboratoriej – fizik lit. ‘The head of the laboratory physicist’

corresponds to four different SemSs:

a. Sentence (22) contains byt’ I.1, zavedujuščij is a quasi-predicate whose argument is fizik: ‘A/The physicist is the head of the laboratory’; fizik is the subject, and in the past tense, we have Zavedujušče+im instr laboratoriej byl fizik; the intonation contour is .

b. Sentence (22) contains byt’ I.2, zavedujuščij is used as a referential NP, fizik denotes a class: ‘Our head of the laboratory is a physicist’; zavedujuščij is the subject; in the past tense: Naš zavedujuščij laboratoriej byl fizik+osom/ fizik+om instr; the intonation contour is .

c. Sentence (22) contains byt’ I.3, zavedujuščij and fizik both are referential NPs. Then the sentence is an identity statement and expresses one of the two SemSs (both sentences are better in this sense with (i) est’ as the main verb):

(i) ‘It is our head of the laboratory who is this physicist [of whom we are talking]’: zavedujuščij is the subject; in the past tense: Naš zavedujuščij

9 The inventory proposed may lack another sense of byt’: ‘X is called Y,’ as in Zdravstvuje, ja Boris. A Vas kak zovut? ‘Hello, I am Boris; what is your name?’ In English, where this way of introducing oneself is more current, BE has such a sense beyond any doubt. See two books on copulas in languages of the world, where the properties and the possible senses of different copulas are presented and discussed, with a rich bibliography: Pustet (2003) and Mikkelsen (2005).
laboratoriej i byl ètot samyj fizik+Ø NOM/ètim samym fizik+om INSTR ‘It was our head of the laboratory who was this physicist’.

(ii) ‘It is this physicist who is our head of the laboratory’: fizik is the subject; in the past tense we have Našim zavedujuščim laboratoriej i byl ètot samyj fizik+Ø NOM ‘It was this physicist who was our head of the laboratory’.

To conclude this section, I would like to consider the case illustrated in the motto:

(23) a. Krasota – èto istina ‘Beauty is truth’.

This sentence means that something [= ‘α’] which is beautiful is also true; therefore, its SemS appears as (23b):

b. ‘entail’
   ‘beautiful’
   ‘true’
   ‘α’

We see here a case of BYT´I.3 ‘X entails Y’: one can say Krasota dlja menja i byla istinoj ‘For me, beauty was truth’ or Krasota dlja menja označala istinu ‘For me, beauty signified truth’.

VI. Some English Equivalents of Russian Bi-nominative Sentences

The main difference between Russian and English bi-nominative sentences is imposed by the different nature of the syntactic structure in both languages. While in Russian the SyntS of a sentence is independent of its Comm(unicative) S, in English, on the contrary, the SyntS is affected by the CommS: the NP corresponding to the Theme tends to be the syntactic subject. Let us compare a pair of English sentences in (24) and their Russian equivalents in (25), with the subject phrases boldfaced:

(24) a. My only resource is my education, experience and the Internet.
    b. My education, experience and the Internet are my only resource.

    b. Moë obrazovanie, opyt i Internet – moj edinstvennyj resurs.

In (25), we have of course BYT´I.1 – the empty copula, since RESURS is a quasi-predicate (‘X is Y’s resource for doing Z’).
In English, the phrase that is the Theme becomes the subject; as a result, the sentences of (24) have different subjects. Not so in Russian: in both sentences of (25) the subject is the same.

To cover such cases, the following Arborization rules are needed in English – (26a) for (24a) and (26b) for (24b). These rules clearly show the main difference with Russian: being the Theme is a crucial factor in the choice of the DSynt-actant I, i.e. of the subject.

(26)  

\[ \text{Theme } P \]

\[ \Rightarrow \]

\[ \text{BEFIN } \]

\[ L(P)(N) \]

\[ L(X)(N) \]

Another example of the same type is (27):

(27)  

My only solution is pigs. ~ Pigs are my only solution.

The agreement of the copula clearly identifies the subject.

VII. Conclusions

The claim of this chapter is straightforward:

The syntactic structure of a (Russian) sentence is basically determined by its semantic structure.

What lexical expression L is the syntactic subject depends on the choice made in the process of Lexicalization of the starting semantic structure. If the meaning ‘L’ is lexicalized as L being Deep-Synt-actant I of the main verb of the sentence, L ends up as the subject. Whether this is done or not depends in the first place on the semantemes in the SemS and the lexical units available in the language. The communicative structure is also of crucial importance, but its effects are secondary with respect to the semantic relations.

What about Padučeva’s (1987) and Padučeva and Uspenskij’s (1979) denotational criterion for subjecthood? Their observation that the subjects strongly tend to be more referential than the predicatives is absolutely correct.
However, as I think, this is an important property of subjects rather than a criterion allowing us to decide whether a particular NP_{NOM} is a subject or not.

To close the discussion, I would propose an example of how the results of this chapter can be used in practice, in particular, when teaching Russian. Let us consider a Russian sentence:

(28) a. Čistoe nakazan´e ètot Pet´ka! lit. ‘Sheer punishment this Pete!’

Which NP is the subject here? The first step is to consider the meaning: sentence (28) means ‘Pete is a punishment’ – that is, it ascribes to Pete a particular (unpleasant) property; ‘punishment’ is a predicate. Therefore, we conclude that the sentence contains BYT´I.1 as a copula, with X = ‘Pete’ (the subject) and Y = ‘punishment’ (the nominal part of the predicate). The marked word order expresses focalized rheme (‘sheer punishment’). Checking the properties of the verb BYT´I.1, we see that all of them are satisfied:

b. Čistoe nakazan´e byla èta Maška! lit. ‘Sheer punishment was this Mary!’

c. Čistym nakazan´em okazalas´dlja menja èta Maška!
lit. ‘Sheer punishment_{INST} turned.out.to.be for me this Mary!’

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