Number agreement in Russian predicates

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Abstract

Russian shows the mixed agreement with the polite pronoun *vy* and *pluralia tantum* nouns, both of which have plural number in form but either singular or plural number in meaning. Two different forms of adjectives – short form and long form – agree in different number with those number mismatch nominals.

I adopted the idea of Siegel (1976) etc. that when a long-form adjective appears in the predicate position, there is always a null head that it modifies, with the HPSG's agreement theory of Wechsler & Zlatič (2003). I propose that all predicates – verbs, SF and LF adjectives – except predicate nominals show CONCORD agreement. LF adjectives show CONC agreement with the null anaphor *'one'*. The different number values of LF adjectives results from index agreement between the null anaphor and the subject of the sentence.

1   Introduction[1]

This paper explores the mixed agreement in Russian. In Russian, the second person plural pronoun *vy* can be used politely of a single person, which is often shown in both Indo-European languages (like *vous* in French) and non-Indo-European languages (like *siz* in Turkish etc.).

The mixed agreement in French has been studied in the HPSG framework (Pollard and Sag 1994, Kathol 1999, Wechsler & Zlatič 2003). In French as in *Vous*[you.PL] *êtes*[be.2**PL**] *loyal*[loyal.**SG**] 'You[polite.SG] are loyal.', plural pronoun *vous* in single referent triggers PL agreement on verbs and SG agreement on adjectives.

Russian shows interesting data in that they have two different forms of adjectives (e.g. *krasiv* 'nice.SF' vs. *krasivyj* 'nice.LF') and polite pronoun *vy* triggers different number values on those – plural on short-form adjectives vs. singular on long-form adjectives. On the other hand, *pluralia tantum* nouns (e.g. *očki* 'glasses', *bryuki* 'pants', etc.) are another important source to examine number agreement since they are analogous to polite pronoun *vy* in that they have plural number in form but can refer to one single entity.

Pluralia tantum nouns do not trigger different numbers on two different forms of adjectives – plural number in both adjectives.

Russian has not been studied much in the HPSG framework. This paper tries to solve the agreement puzzle, triggered by nominals with number mismatch in form and meaning. All those puzzles are untangled by figuring out the properties of long-form adjectives and nominals causing the mixed agreement. I will adopt the Babby (1973), Siegel (1976), Baylin (1994)'s idea that when a long-form adjective appears in the predicate position, there is always a null head that it modifies, together with the HPSG's agreement theory of Wechsler & Zlatič (2003) which divide the grammatical agreement features into the index agreement and the concord agreement.

2   Mixed agreement in Russian

This section shows how agreement puzzles look like in Russian. In Russian, there are two different forms of adjectives – short-form adjectives (e.g. *krasiv* 'nice.SF.SG' and *krasivy* 'nice.SF.PL' etc.) and long-form adjectives (e.g. *krasivyj* 'nice.NOM.SG', *krasivye* 'nice.PL' etc.).[2] They behave quite different. The verb and SF adjective agreement is quite simple: they all agree morphosyntactically with any type of subject. The pronoun *vy* 'you.PL' triggers PL number in finite verbs and short-form adjectives no matter how many people *vy* is referring to:

(1) a. Ty   byl   sčastliv
          2SG   be.past.2SG   happy.SF.SG
          'You (one informal addressee) were happy.'

     b. Vy   byli / *byl   sčastlivy / *sčastliv
          2PL   be.past.**PL / SG**   happy.SF.**PL**/ *SG
          'You (one formal addressee or multiple addressees) were happy.'

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pluralia tantum nouns (e.g. *scissors*, *trousers*, etc.) trigger plural agreement morphosyntactically when they are semantically either singular (one pair) or plural (more than one pair):

(2)   Èti   otčki   krasivy /*krasiv
       these   glasses.PL   nice.SF.**PL** /*SG
       'These glasses (**one** or more than one pair) are nice.'

Not all predicates show morphological agreement in plural with a plural subject. LF adjectives, which can be either attributive or predicative, show semantic agreement with polite pronoun *vy* in a single referent:[3]

(3)   Vy   krasivyj / *krasivye
       you.polite   nice.NOM.**SG** / PL
       'You (one formal addressee) are nice.'

On the other hand, *pluralia tantum* subject still triggers plural agreement on LF:

(4) a. Èti   otčki   krasivye /*krasivyj
        these   glasses.PL   nice.Nom.**PL** / SG
        'These glasses (one or more than one pair) are nice.'

     b. makarony   vkusnye / *vkusnyj
        spagetti.PL   tasty.NOM.**PL** / SG
        'The spaghetti is tasty.'

Let's consider predicate nominals. They are somewhat different from other predicates. Predicate nominals show pure semantic agreement with any type of agreement trigger (e.g. pronoun, *pluralia tantum*, etc.) if the predicate noun can have both number values. It would be because the predicate nominals can have their own inherent numbers, they have restrictions on their number value morphologically or semantically, and they themselves are agreement triggers:

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[3] In 19th c., long-form adjectives show PL agreement with the polite pronoun *vy*, regardless of number of referents (Corbett 1983).

(5) a. Vy / Ty   byli / byl   geroem
       you.PL   / SG   be.past.PL / SG   hero.Inst.**SG**
       'You (one formal / informal addressee) were a hero.'
    b. Vy   byli   gerojami
       you.PL   be.past.PL   hero.Inst.PL
       'You (multiple addressees) were heroes.'

(6) a. Èti   očki   special'ny'   instrument čtoby   smotret'   fil'm
       these   glasses   special.SG   tool.**SG**   so_that   to_watch   film
         'These glasses (**one** pair) are a special tool to watch a (e.g. IMAX) movie.'

    b. Èti   očki   special'nye   instrumenty čtoby   smotret'   fil'm
       these   glasses   special.PL   tool.**PL**   so_that   to_watch   film
       'These glasses (more than one pair) are special tools to watch a movie.'

Here is the summarization of Russian predicate agreement patterns with two different types of nominals – polite pronoun *vy* and *pluralia tantum* noun:

• morpholgocially **PL** & semantically **SG** triggers	finite verbs	adjectives		predicate nominal
		SF	LF	
vy	PL	PL	**SG**	SG
pluralia tantum	PL	PL	**PL**	SG

     Russian shows mixed agreement – i.e. one agreement trigger causes different agreement values in its agreement targets. This predicate agreement patterns follow Comrie (1975) and Corbett (1983)'s predicate hierarchy (verb > participle > adjective > noun), which says the one on the left shows syntactic agreement than the others on the right. Two different types of nominals, polite pronoun and *pluralia tantum* nouns, trigger different number values in predicates but each pattern confirms the predicate hierarchy.

     This research shows how to analyze the agreement puzzle in Russian. Next section analyzes the agreement of verbs, SF adjectives, and predicate nominals, which behave straightforward – either morphological or semantic agreement with any type of agreement triggers. The main focus of this paper is on LF adjectives. The following section deals with the LF adjective issue.

3 Predicates except LF adjectives: Simple things first!

The straightforward agreement targets – verbs, SF adjectives and predicate nouns – are dealt with in this section. Section 3.1 will propose lexical entries of pronoun *vy* and *pluralia tantum* nouns, introducing the features of previous analysis on (mixed) agreement in the HPSG framework. Section 3.2, I will show the analysis for those predicates.

3.1 Lexical entries of polite pronoun *vy* and *pluralia tantum* nouns

Mixed agreement with polite pronoun in French has been examined well in HPSG framework. Pollard & Sag (1994) and Kathol (1999) analyze them by making the verbs and predicate adjectives agree in a different feature of polite pronoun. Pollard & Sag (1994) analyzes that the verb agrees with INDEX feature of the pronoun, but the adjective agrees with its semantic RESTRICTION feature (RESTR, hereafter). Kathol (1999) advocates the morphosyntactic AGR feature, which is distinct from the semantic INDEX feature.[4] In his analysis, adjective agreement is handled by structure sharing of INDEX values, while verb agreement is handled by structure sharing of the AGR values.

Wechsler & Zlatič (2003) analyze Serbo-Croatian agreement with two different CONCORD (CONC, hereafter) and INDEX features, which are analogous to Kathol's AGR vs. INDEX features. They give a unified agreement analysis in different languages and show the Serbo-Croatian data that we need to treat subject and verb agreement as INDEX agreement. As for mixed agreement, Wechsler & Zlatič (2003) in HPSG and Wechsler (2004, 2005) in LFG suggest that French first and second person pronouns are morphosyntactically distinguished by four different person values *1s*, *2s*, *1a* and *2a*, and the traditionally called first and second person finite verbs agree with their subjects in person only. Agreement triggers with no number force the semantic agreement on agreement targets. Thus, in predicate adjectives, polite pronoun triggers semantic agreement due to its lack of number, while *pluralia tantum* nouns trigger morphosyntactic agreement in

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[4] Instead of AGR feature, I call this CONCORD feature following Wechsler & Zlatič (2003).

plural number. Hahm (2006) applies Wechsler's ideas to Czech in LFG framework: the finite verbs agree only in person; singular predicate has constraints that the agreement trigger has to be in singular both morphosyntactically and semantically, while plural one has elsewhere condition.

However, Russian pronouns should be explained in the traditional way which they are distinguished by three persons and two numbers, contrary to Czech and French. It is supported by the fact that Russian verbs in past tense do not agree in person. The plural verbs show the same form when the subject is any traditionally called plural nominals, including first, second, and third person:

(7) a. Ja *'I'*
        Ty *'you (SG)'*   } byl *'be.past.masc.SG'* ...
        On *'he'*
        'I/You(*SG*)/He was ... '

   b. My *'we'*
        Vy *'you (PL)'*   } byli *'be.past.PL'* ...
        Oni *'they'*
        'We/You(*PL*)/They were ... '

If we assume that Russian second person pronouns are not marked for number and have separate person values (e.g. *2s* and *2a* as in Wechsler 2004 for French), we have to have uneconomical explanation – for example, the verb *byl* can have the subject in [[PERS *2s*] ∨ [NUM *sg*]] disjunctively. If we assume that all pronouns are marked for number in Russian, the agreement can be explained simply: verbs agree in number with any nominals including pronouns.

This paper follows Kathol (1999) and Wechsler and Zlatíc (2003), the grammatical agreement is subdivided into syntactic CONC and INDEX. Plus, following Wechsler and Zlatíc (2003), RESTR has the feature COUNT for pure semantic number. I propose the lexical entries for pronoun *vy* 'you' and the *pluralia tantum* nouns *očki* 'glasses' or *bryuki* 'pants' as follows:

(8) a. polite pronoun *vy*   b. *pluralia tantum* nouns

$$\begin{bmatrix} \ldots \mid \text{CONC} & \begin{bmatrix} \text{NUM} & \text{pl} \\ \ldots \end{bmatrix} \\ \ldots \mid \text{INDEX} & \begin{bmatrix} \text{NUM} & [1] \\ \ldots \end{bmatrix} \\ \ldots \mid \text{RESTR} & \begin{bmatrix} \text{COUNT} & [1] \\ \ldots \end{bmatrix} \end{bmatrix}$$
$$\begin{bmatrix} \ldots \mid \text{CONC} & \begin{bmatrix} \text{NUM} & \text{pl} \\ \ldots \end{bmatrix} \\ \ldots \mid \text{INDEX} & \begin{bmatrix} \text{NUM} & \text{pl} \\ \ldots \end{bmatrix} \\ \ldots \mid \text{RESTR} & \begin{bmatrix} \text{COUNT} \\ \ldots \end{bmatrix} \end{bmatrix}$$

The polite pronoun *vy* has *plural* number in CONC but INDEX number is identical with COUNT value. When the COUNT value is decided in the real world depending on how many persons are referred, INDEX number value follows this. On the other hand, *pluralia tantum* nouns are specified as PL number for both CONC and INDEX, and in the context either singular or plural number is possible for COUNT feature.

Thus, even when polite pronoun *vy* and *pluralia tantum* noun both refer to a single referent, INDEX number values are different – *sg* vs. *pl* respectively. Their INDEX numbers explain the referential agreement with relative pronoun:[5]

(9) a.   Vy   kotoraja (>>kotorie)   stol'ko   čitaete,   mnogo znaete
         you,   rel-pron.F.**SG** (PL)   so_much   read.2PL   much   know.2PL
         'You (polite.SG), who read much, know much.'

    b.   eti   bryuki, kotorie /*kotorij   dala mne   moya   babuška,
         this.PL pants.PL   rel-pron.**PL**/*SG   gave to.me my   grandmother
         moi   lyubimaya
         my.PL favorite.PL
         'These pants, which my grandmother gave me, are my favorite.'

Pronoun and antecedent show INDEX agreement. In the above sentences, the polite pronoun *vy* triggers singular agreement in the relative pronoun but *pluralia tantum* noun *bryuki* triggers plural agreement. When the third person pronoun co-refers to *pluralia tantum* noun, the pronoun has to be in plural:

(10)   Ja kupil   eti   bryuki vchera. Ja lyublyu   ix / *ego.
        I bought.1sg this.PL pants   yesterday I love.1sg them.acc/it.acc
        'I bought a pair of pants yesterday. I love them.'

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[5] When the relative pronoun agrees with polite pronoun, singular form is much more preferred than plural form or plural sounds bad completely depending on a speaker.

Thus, it is plausible to say that two different nominal types, polite pronoun *vy* and *pluralia tantum* noun have different INDEX number.

One separate issue to mention about is the possibility between animacy and different INDEX number values of polite pronoun *vy* and *pluralia tantum* noun. The INDEX number I gave for two lexical entries might be related to animacy. The controllers referring to animates are more likely to take semantically justified agreement than are those referring to inanimates. Corbett (1983a) shows the evidence coming from different Slavic languages, involving quantified expressions and conjoined NPs. When animates are conjoined or in quantified expressions, they trigger more semantic agreement than inanimates' cases. It is possible to say that *pluralia tantum* nouns are inanimate, so it has morphological PL number in INDEX triggering PL agreement to a relative pronoun, while polite pronoun refers to human, so it can have semantic SG number in INDEX triggering SG agreement to a relative pronoun. This fact can be another evidence for semantic agreement with an animate in Russian.

3.2   Verbs, SF adjectives and predicate nominals

It is quite clear what verbs, SF adjectives, and predicate nominals want to agree with. Finite verbs and SF adjectives only show morphological agreement regardless of the agreement trigger type. Thus, we can analyze that in Russian the number value of finite verbs or short-form adjectives have to be identical with the CONC's number value of the subject. For example, the partial lexical information for the plural SF adjective *krasivy* 'nice' is as follows:

(11)   Lexical sign for *krasivy*:

$$\begin{bmatrix} \text{PHON} & \text{/krasivy/} \\ \text{SUBJ} & <\begin{bmatrix} \text{CONCORD} & \begin{bmatrix} \text{NUM} & pl \end{bmatrix} \end{bmatrix}> \end{bmatrix}$$

This plural adjective agrees with morphologically plural agreement trigger like pronoun *vy* and *pluralia tantum* subjects. On the other hand, singular SF adjective *krasiv* 'nice.SG' requires the subject to be singular, which make impossible to agree with pronoun *vy* and *pluralia tantum* subjects regardless of the number of its referent:

(12) a. Vy   krasivy /*krasiv
        2PL   nice.SF.**PL**/ *SG
        'You (one formal addressee or multiple addressees) were nice.'
    b. Eti   otčki   krasivy /*krasiv
       these   glasses.PL   nice.SF.**PL** /*SG
       'These glasses (**one** or more than one pair) are nice.'

Predicate nominals also show consistent agreement pattern for different subject types, but it should be semantic agreement. The relationship between predicate nominal and subject is purely semantic. They do not have any grammatical agreement. If the subject is an aggregate, which is semantically plural, predicate nouns are always in plural. Otherwise they are in singular. Let's think about *pluralia tantum* subject cases again:

(13) a. Èti   očki   special'ny'   instrument   čtoby   smotret'   fil'm
        these   glasses   special.SG   tool.**SG**   so_that to_watch   film
        'These glasses (**one** pair) are a special tool to watch a (e.g. IMAX) movie.'

    b. Èti   očki   special'nye   instrumenty   čtoby   smotret'   fil'm
       these   glasses   special.PL   tool.**PL**   so_that to_watch   film
       'These glasses (more than one pair) are special tools to watch a movie.'

The predicate nouns show different number depending on 'real' number of referent. We see the attributive adjective *special'ny'* 'special' shows the morphological agreement with the predicate noun as SG or PL. The predicate noun *instrument* 'tool' is an agreement trigger as well as an agreement target.

The lexical sign of the noun *instrumenty* 'tool.PL' has the following information:

(14)   Lexical sign for *instrumenty*:
$$\begin{bmatrix} \text{PHON} & \text{/instrumenty/} \\ \text{CONC} & [\text{NUM} \quad [1]] \\ \\ \text{SUBJ} & \langle [\text{RESTR} \ [\text{COUNT} \ [1]\,pl\,]] \rangle \end{bmatrix}$$

The number value of predicate nouns is identical with the COUNT number in RESTR of the subject. When the subject is *vy* 'you.PL', then it triggers

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different numbers on predicate nominals depending on how many addressees are referred to. One thing to note is that the number value of the predicate noun has to be a default value. The predicate noun itself can be restricted for number like collective noun, *pluralia/singularia tantum* noun, etc. In that case, the predicate noun does not show the agreement with its subject. It has to have its lexically constrained number no matter what semantic number the subject nominal has.

4   LF adjectives

Let's move on to LF adjectives. First, the differences between SF and LF are discussed with the previous studies. We will come to conclusion that LF adjectives behave only attributive – i.e. when a LF adjective appears in the predicate position, there is always a null head noun that it modifies. Then, I will give the analysis for LF adjective agreement.

There have been researches on different behavior of SF and LF adjectives (Babby 1973, Siegel 1976, Baylin 1994, etc.). Their common conclusion is that LF adjectives in predicate position modify a null noun. First, SF adjectives are never used attributively and appear only in the predicate position; whereas LF adjectives appear to be unconstrained – i.e. LF can appear in either attributive or predicate position. Following examples are from Matushansky (2006):

(15) a. Marija   byla   umnaja   ženščina.
        M.   be.past.SG   clever.LF.Fem.Nom   woman.Fem.Nom
        'Maria was an intelligent woman.'

   b. Marija   byla   umnaja
        M.   be.past.SG   clever.LF.Nom.Fem.
        'Maria was an intelligent woman (lit. an intelligent one).

   c. *Marija   byla   umna   ženščina
         M.   be.past.SG   clever.SF.Fem.   woman.Fem.Nom

Second, as we can see from the above examples, LF adjectives inflect fully for case like nouns, while SF adjectives do not inflect for case at all.

Third, as Siegel (1976) noted, SF and LF adjectives have different interpretation – absolute vs. relative respectively. The sentence *the student is smart* with **SF** adjective, *Studentka **umna***, means that the student is intelligent in general – i.e. absolute term. On the other hand, the sentence with **LF** adjective, *Studentka **umnaja***, means that she is intelligent compared with other students, i.e. '*The student is an intelligent one.*'

Due to the different interpretation between LF and SF adjectives, when we need the relative interpretation, we cannot use LF adjectives:[6]

(16) a. Prostrantsvo   beskonečno (SF) / *beskonečnoe (LF)
          'Space is infinite.'
     b. Vse   jasno (SF) / *jasnoe (LF)
         'Everything is clear.'
     c. Prixodit'   domoj   očen'   prijatno (SF) / *prijatnoe (LF)
         'To come home is very pleasant.'

Those sentences can be compared with the following English sentences. We cannot insert the anaphora *one* in the above sentences like: ?#*Space is an infinite one* / ?#*Everything is a clear one* / ?#*To come home is a very pleasant one*. In Russian, those sentences should use SF adjectives, not LF.

In similar reason, impersonal adjectives of weather or physical state do not have LF adjective forms (Matushansky 2006):

(17) a. (Utrom)   bylo   solnečno(*e)
         morning.Inst   was.Neut   sunny.Neut.SG(-LF)
         'It was sunny in the morning.'
     b. Utro   bylo   solnečno(*e)
         morning.Nom   was.Neut   sunny.Neut.SG(-LF)
         'It was a sunny morning. (lit. The morning was sunny.)'

(18)   Lene   ploxo / *ploxoe
         Lena.Dat   bad.SF.Neut.SG / LF.Neut.Nom.SG
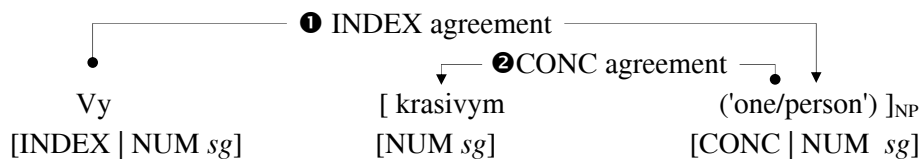   'Lena is unwell.' (*cp.* ?Lena is an unwell one.)

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[6] My informant has the same judgment on these sentences.

The above examples support their common conclusion that LF adjectives are always attributive and if they are in predicate position there is always an elided null nominal. For example below (19a)=(3) and (19b)=(4a), the LF adjective *krasivyj* is actually modifying a null head:

(19) a. Vy   krasivyj / *krasivye   Ø
         you.polite   nice.NOM.**SG** / PL   (one)
         'You (one formal addressee) are nice.'
      b. Eti   otčki   krasivye /*krasivyj   Ø
         these glasses.PL   nice.Nom.**PL** / SG   (ones)
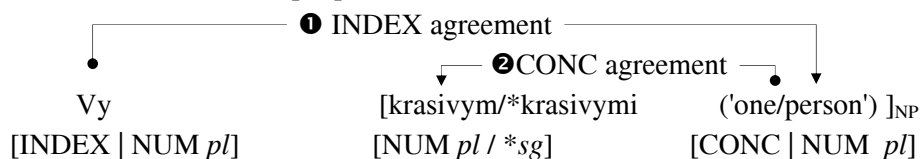   'These glasses (one or more than one pair) are nice.'

Thus, the agreement of LF adjective in predicate position shows actually CONCORD agreement, not INDEX, like those in attributive position:

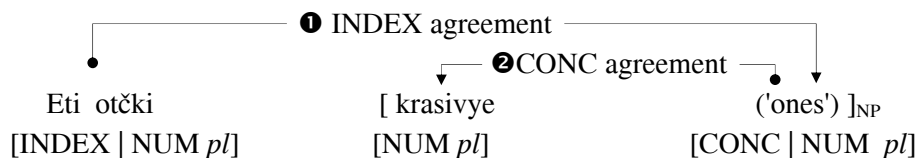(20) a. 'You (one male formal addressee) are nice. = You are a nice person.'

❶ INDEX agreement
❷ CONC agreement

Vy   [krasivym   ('one/person')]$_{NP}$
[INDEX | NUM *sg*]   [NUM *sg*]   [CONC | NUM *sg*]

 Result? Just looks like INDEX agreement.

   b. 'You (more than one male or mixed gender addressees) are nice.'
       = 'You are nice people.'

❶ INDEX agreement
❷ CONC agreement

Vy   [krasivym/*krasivymi   ('one/person')]$_{NP}$
[INDEX | NUM *pl*]   [NUM *pl* / *sg*]   [CONC | NUM *pl*]

   c. 'These glasses (one or more than one pair) are nice.'
       = 'These glasses are nice ones.'

❶ INDEX agreement
❷ CONC agreement

Eti otčki   [krasivye   ('ones')]$_{NP}$
[INDEX | NUM *pl*]   [NUM *pl*]   [CONC | NUM *pl*]

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Pronoun *vy* can have either number in INDEX depending on how many persons it refers to. When it refers to more than one person, as in (20a), the unexpressed anaphora *'one'* has *singular* number by INDEX agreement with *vy*, and LF adjective agrees in CONC number with its null head, whereas when *vy* refers to more than one person as in (20b), then its INDEX number is plural which trigger plural INDEX agreement in null anaphora, which triggers CONC agreement to LF adjective. *Pluralia tantum* nouns are constrained to have "PL" INDEX number as in (20c). In the same reason, LF adjective should be in PL.

I adopt the idea of previous studies on Russian LF adjectives. One same constraint applies for all LF adjectives in attributive position or predicate position. When they are in predicate position, the head which is modified by LF adjective is not overt. I propose that the LF adjective *krasivyj* (in any position, either attributive or predicative) has the following lexical information:

(21)   Lexical sign for *krasivyj*:

$$
\begin{bmatrix}
\text{PHON} & \text{/krasivym/} \\
\text{MOD} & \text{N'} \begin{bmatrix} \text{CONCORD} \begin{bmatrix} \text{NUM} & [1]\,sg \\ \text{GEND} & masc \\ \text{CASE} & inst \end{bmatrix} \end{bmatrix}
\end{bmatrix}
$$

In the HPSG framework, there has not been any analysis on adjectives or nominal ellipsis in Russian. However, few researches try to explain nominal ellipsis in Spanish, German, Hebrew, etc. (e.g. Nerbonne and Mullen 2000). Nerbonne and Mullen (2000) assume the empty lexical heads and those missing nouns are analyzed as actual, but phonetically null, lexical items. The empty-headed N' is selected by the constituent to its left, either an adjective or a determiner. They postulate the Nonempty Left Periphery Constraint which ensures that the null constituent may not be the first leftmost element of the phrase. Thus, when nominal does not have any modifier, it cannot be omitted. Following their idea about the existence of phonetically null lexical items, the lexical sign for the null anaphora 'one' is proposed like the following:

$$(22) \quad \begin{bmatrix} \text{PHON} & [\quad] \\ \text{SYN} & \begin{bmatrix} noun \\ \text{CONCORD} & (see\ below) \end{bmatrix} \\ \text{SEM} & [....\,'one'...\,] \end{bmatrix}$$

Nominal Ellipsis Agreement Rule:
The CONCORD value of the null anaphor matches the INDEX of its antecedent.

Bailyn (1994) shows interesting diachronic change. Adjectives in Old Russian had quite different distribution from ones in Modern Russian. LF adjectives were used only in predicate position; while SF adjectives were able to be used in attributive position in only indefinite meaning. It supports the idea that LF adjectives are only attributive so that there is always a null head noun that LF adjectives modify when LF adjective is in predicate position.

Independent evidence for null-nominal hypothesis comes from the extremely productive nominal ellipsis in Russian like the following:

(23) a. ja pokazal   tu   ujutnuyu   komnatx   i   etu   ujutnuyu komnatu
     I   showed.1sg that.acc cozy.acc   room.acc and   this   cozy   room
   b. ja pokazal   tu   ujutnuyu   komnatx   i   etu   ujutnuyu   Ø
   c. ja pokazal   tu   ujutnuyu   komnatx   i   etu   Ø   Ø
     'I showed that cozy room and this cozy room.'

As in the above, the null NP are allowed with almost any adjectives in the discourse context. Those elided nominals are explained in the same way as the predicate noun modified by LF adjective.

To explain the LF adjective agreement, some might want to suggest that we can add the constraint on LF adjectives saying that they should agree with the subject's INDEX number. But, then we cannot explain why SF and LF adjectives have all the different morphosyntactic and semantic differences.

5   Non-nominative *vy* and agreement

Section 5 briefly examines the non-nominative pronoun and agreement. Wechsler (2004, 2005) propose that in Serbo-Croatian pronouns have number only when they are in nominative case showing the following examples, where the adjectives show morphosyntactic agreement with polite pronoun in

nominative case but semantic agreement with non-nominative polite pronoun:

(24) a. Vi   ste   duhoviti
        2PL   AUX.2PL   funny.masc.PL
        'You (one formal addressee or multiple addressees) are funny.'
    b. Ja   vas   smatram   duhovitom.
        I   you.PL.ACC   consider   funny.INST.fem.SG
        'I consider you (one formal female addressee) funny.'
      [Serbo-Croatian (Wechsler 2004)]

In Russian, when the pronouns are in non-nominative case, the analysis works the same. In secondary predicate position, case is required so that only LF adjectives can be in that position as in the following sentences:

(25) a. Ya   šitayu   vas   sčastlivym /*sčastlivymi
        I   consider   you.masc.ACC.PL   happy.INST.masc.**SG**/PL
        'I consider you (one formal male addressee) happy.'
    b. Ya šitayu   eti   očki   krasivymi
        I   consider   these   glasses   nice.INST.**PL**
        'I consider these glasses (one or more than one pair) nice.'

LF adjectives in the secondary predicate position also agree with the null 'one' and showing the same pattern of agreement as in the main predicate position.

6   Other special nominals

This section illustrates a few different nominal types. They have different constraints on their nominal types. But, still predicate adjectives are explained in the same way. One type is *singularia tantum* nouns like *metro* 'subway'. They have morphologically singular number only so that they trigger only singular number although they can mean either one or more. They can refer to more than one subways changing COUNT number value but they are constrained to have only singular number in CONC and INDEX which is opposite to *pluralia tantum* nouns:

(26)   metro   horošee /*horošie / horoš / *horošy
        subway.SG   nice.LF.NOM.Neut.SG /LF.PL / SF.SG / SF.PL
        'The subway is nice. or The subways are nice.'

Another type is *sheep*-type. Like in English *sheep*, they have one morphological form but trigger any number depending on meaning (e.g. *shempanze* 'chimpanzee', *pal'to* 'coat'). This type will have any number value in CONC/INDEX/COUNT but morphologically does not change in number:

(27) a. pal'to   bylo   krasivo / krasivoe
        coat.neut   be.neut.SG   beautiful.SF.Neut.SG / LF.NOM.Neut.SG
        'The coat was beautiful.'
    b. pal'to   byli   krasivy / krasivye
        coat.neut   be.PL   beautiful.SF.PL / LF.PL
        'The coats were beautiful.'

(28) a. šimpanze   krasivyj /krasiv
        chimpanzee.SG   nice.LF.Masc.Nom.SG /SF.Masc
        'The chimpanzee is nice.'
    b. šimpanze   krasivye / krasivy
        chimpanzee.SG   nice.Nom.PL / SF.PL
        'The chimpanzees are nice.'

Finally, there is a collective nominal type, meaning only PL but morphologically SG (*molodyož* 'young people, youth. FEM', *studenčestvo* 'students. NEUT', *krest'yanstvo* 'peasantry. NEUT' etc.). As in the previous type, this group of nouns can have any number in CONC and INDEX. The difference is in specified COUNT number as plural:

(29) a. molodyož   (byla)   krasiva / horoša
        youth.FEM   be.SG.FEM   nice.SF.SG.FEM
    b. molodyož   (byla)   krasivaya / horošaya
        youth.FEM   be.SG.FEM   nice.LF.SG.FEM
    c. *molodyož   byli   krasivy / krasivye
        youth.FEM   be.PL   Short.PL / Long.PL
        'Young people are nice.'

The predicate agreement is still applied in the same way, interacting with the constraints on the specific constraints on number in lexical entries.

7   Conclusion

This paper explored the mixed agreement with the polite pronoun *vy* and *pluralia tantum* nouns in Russian. I propose that all predicates – verbs, SF and LF adjectives – except predicate nominals show CONCORD agreement. The predicate nominals have their own inherited number, triggering agreement to its own arguments. This idiosyncratic property of predicate pronouns leads them to agree with their subject in pure semantic number, which is formalized as COUNT number.

Polite pronoun *vy* referring to one referent has different INDEX number from *pluralia tantum* nouns with a single referent (*sg* vs. *pl* respectively). This is confirmed by relative or regular pronominal agreement.

To explain LF adjective agreement, I adopted the Babby (1973), Siegel (1976), Baylin (1994)'s idea that when a long-form adjective appears in the predicate position, there is always a null head that it modifies. LF adjectives show CONC agreement with the null head they modify, and the null anaphor *'one'* agree with the subject of the sentence semantically in INDEX. Thus, LF adjectives seem to agree with the subject of the trigger in INDEX. This paper follows the HPSG's agreement theory of Wechsler & Zlatič (2003) which divide the grammatical agreement features into index agreement and concord agreement.

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