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THE SEMANTICS OF THE PLURAL PRONOUN CONSTRUCTION*

The meaning of ‘we’ is usually seen as ‘I + others’. Russian, along with many other languages, has a construction that allows an overt specification of ‘others’, the so-called *Plural Pronoun Construction* (PPC), which involves a plural pronoun and a comitative phrase. The syntactic behavior of this comitative phrase differs from that of other *with*-phrases such as VP-adjuncts, NP-adjuncts, and comitative conjuncts. We will argue that the syntactic behavior of the PPC-comitative follows from its syntactic status as a complement of the plural pronoun D°. We will also suggest a formal semantic analysis of PPC, where the comitative phrase is argued to supply the unsaturated element in the interpretation of the plural pronoun.

1. INTRODUCTION

The Russian comitative construction illustrated in (1) raises a simple puzzle for compositional semantics. As the glosses show, the subject phrase *mys Petej* varies in meaning between ‘we + Peter’ and ‘I + Peter’. Since *Petej* refers to Peter, a natural conjecture is that *my* is simply ambiguous between ‘we’ and ‘I’:

- (1) **My** s Petej pojdëm domoj.
?? with Peter-Instr go-Fut home
a. ‘**We** will go home with Peter.’
b. ‘**I + Peter** will go home.’

Surprisingly, this conjecture is not correct. As (2) shows, when the comitative is absent, *my* unambiguously means ‘we’; it cannot mean ‘I’.

- (2) **My** pojdëm domoj.
we go-Fut home
‘**We**/***I** will go home.’

These data pose a straightforward question: if *my* always means ‘we’, then how does the reading in (1b) arise? How does ‘we + Peter’ come to mean ‘we two’? The question is in fact a general one. As (3a) and (4a) show, Russian plural pronouns *all* display the variation in (1) when accompanied

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by a comitative; and all are univocal when occurring alone (cf. (3b) and (4b)):

- (3) a. **Vy s Petej** pojděte domoj.
 ?? with Peter-Instr will-go home
 i. ‘You-Pl + Peter will go home.’
 ii. ‘You-Sg + Peter will go home.’
- b. **Vy** pojděte domoj.
 you-Pl go-Fut home
 i. ‘You-Pl will go home.’
 ii. *‘You-Sg will go home.’
- (4) a. **Oni s Petej** pojduť domoj.
 ?? with Peter-Instr go-Fut home
 i. ‘They + Peter will go home.’
 ii. ‘He + Peter will go home.’
- b. **Oni** pojduť domoj.
 they go-Fut home
 i. ‘They will go home.’
 ii. *‘He will go home.’

The combination of plural pronoun + comitative phrase, understood as in (1b) and its counterparts in (3a-ii) and (4a-ii), is usually referred to either as the ‘Plural Pronoun Construction (PPC)’ (Schwartz 1988) or as an ‘Inclusory Pronominal’ (Lichtenberk 2002). In this paper we will discuss primarily Russian data, but the PPC is also found in many other languages from families that include (but are not limited to) Afroasiatic (Chadic), Algic, Australian, Austronesian (Malayo-Polynesian), Indo-European (Baltic, Celtic, Germanic, Romance, Slavonic), Mayan, Niger-Congo, Nilo-Saharan, Salishan, Siouan, Trans-New Guinea and Uralo-Altaic. The properties of the PPC in all these languages are very similar: there is always a plural pronoun and another (pro)nominal whose reference appears to be included in that of the pronoun. The form of the second element and of the connector varies from language to language; usually, however, it is either a *with-PP* or a nominal in the Comitative Case.

Because the ‘ambiguity’ of *my* appears to depend on the presence of the comitative phrase, we begin our discussion of the PPC with a discussion of more familiar Russian comitatives (section 2). In section 3, we argue that the PPC does not clearly pattern with any of these constructions and thus merits a new syntactic analysis. In section 4, we propose a new structural

position for the *with*-phrase in the PPC, develop a formal semantic analysis of plural pronouns that accounts for the ‘inclusivity’ of the PPC, and show how the syntactic behavior of the PPC discussed in section 3 correlates with our proposal.

2. COMITATIVE CONJUNCTS AND COMITATIVE ADJUNCTS

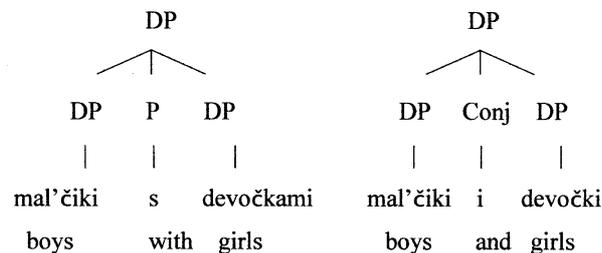
The contrast in (1) and (2) shows that the special interpretation of the PPC depends on the presence of a comitative phrase. Our story therefore begins with a discussion of comitatives.

Besides the PPC, comitative phrases in Russian can be argued to occur in at least three distinct functions: as **conjuncts**, **verbal modifiers**, and **nominal modifiers**. (5) illustrates these uses. Note that in (5a), the boys and the girls both dance, but not necessarily together, while in (5b) they definitely dance together’ and in (5c) we do not know whether the girls danced at all.

- (5) Mal’čiki s devočkami tancevali.
 boys-Nom with girls-Instr danced
- a. ‘The boys and the girls danced.’ COMITATIVE CONJUNCT
 b. ‘The boys danced with the girls.’ VERBAL MODIFIER
 c. ‘The boys who had/were with girls danced.’ NOMINAL MODIFIER
 (cf. ‘The boys with blond hair danced’)

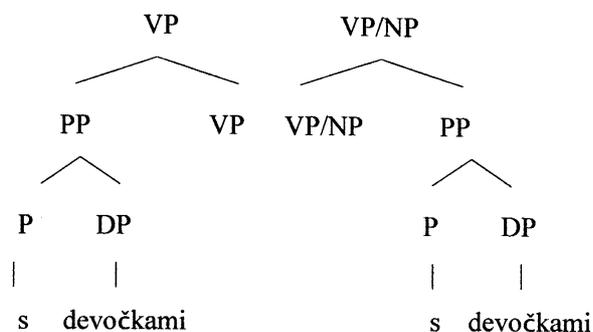
This difference in interpretation is presumably correlated with a difference in structure. Comitative conjuncts have the approximate structure in (6a) and are interpreted as expressing coordination, parallel to true conjunctions as in (6b) (Vassilieva 2001; Camacho 1996, 2000).

- (6) a. Comitative Conjunct b. True Conjunction



By contrast, verbal and nominal comitative adjuncts are assigned the structures in (7a, b) and are interpreted as modifiers expressing accompaniment.

- (7) a. Comitative L-Adjunct b. Comitative R-Adjunct



The correlation of structure and interpretation in (6) and (7) correctly predicts a number of important distributional differences between comitative conjuncts and adjuncts that have been noted in the literature over the years (e.g., on Spanish: Camacho 1996; on Polish: Dyła 1988; on Russian: McNally 1993; Progovac 1997; Vassilieva 2001).

2.1. Agreement

Consider a string like (8), where a singular Nominative-marked subject immediately precedes a comitative and the verb. When the comitative is a conjunct, the structure will be as in (9a), parallel to a true conjunction as in (9b). The subject is a coordination of singulars, and hence plural, requiring plural agreement on the verb.

- (8) mal'čik s koškoj V...
 boy-Nom with cat-Instr

- (9) a. [_{DP} Mal'čik s koškoj] ušli domoj.
COMITATIVE COORDINATION
 boy-Nom with cat-Instr went-**PI** home
 'The boy and the cat went home.'
- b. [_{DP} Mal'čik i koška] ušli domoj.
AND-COORDINATION
 boy-Nom and cat-Nom went-**PI** home
 'The boy and the cat went home.'

By contrast, when a singular Nominative-marked subject precedes an adjunct comitative, we have a singular subject, requiring singular agreement on the verb.

- (10) a. Mal'čik [VP s koškoj [VP ušël domoj.]] VP-ADJUNCT
 boy-Nom with cat-INSTR went-Sg home
 'The boy went home with the cat.'
- b. [NP [NP Mal'čik [s koškoj]] [VP ušël domoj.]] NP-ADJUNCT
 boy-Nom with cat-INSTR went-Sg home
 'The boy with the cat went home.' (e.g., 'but the boy
 with the dog stayed')

The prediction is thus that in cases like (8), verb agreement should correlate with conjunct versus adjunct readings. Specifically, plural agreement should entail conjunct semantics, and singular agreement should entail adjunct semantics. This prediction is correct, as the glosses show.

2.2. Discontinuity with the Subject

A second prediction concerns adjacency to the subject. Since comitative verbal adjuncts can attach on the right of VP, as seen in (7b), they are predicted to be able to occur non-adjacent to the subject. This possibility is illustrated in (11a), with the structure in (11b). Note that the verb agreement is singular, as expected:

- (11) a. Ivan ušël domoj s **Petj.** VP-ADJUNCT
 I-Nom went-Sg home with P-Instr
 'Ivan went home with Peter.'
- b. Ivan [VP [VP ušël domoj] s **Petj.**]

By contrast, comitative conjuncts will be able to occur disjoint from the subject only if the comitative phrase can escape the larger conjunction and extrapose rightward. (12a) shows that this is not possible with true conjunctions, presumably as a result of island constraints. Equally, it is not possible with a comitative conjunct, as seen in (12b) (where verb agreement is again used to force the conjunct interpretation):

- (12) a. *Ivan ušli domoj i **Petja.** AND-COORDINATION
 I-Nom went-Pl home and P-Nom
 'Ivan and Peter went home.'
- b. *Ivan ušli domoj s **Petj.** WITH-COORDINATION
 I-Nom went-Pl home with P-Instr
 'Ivan and Peter went home.'

- (14) a. Mal'čik s kotěnkom nenavidit brokkoli.
 boy-Nom with kitten-Instr hates-Sg broccoli-Acc
 i. 'The boy with the kitten hates broccoli.'
 √ NP-ADJUNCT READING
 ii. # 'The boy hates broccoli with the kitten.'
 # VP-ADJUNCT READING
- b. Mal'čik s kotěnkom nenavidjat brokkoli.
 √ WITH-COORDINATION
 boy-Nom with kitten-Instr hate-Pl broccoli-Acc
 'The boy and the kitten hate broccoli.'
- c. Mal'čik i (ego) kotěnok nenavidjat brokkoli.
 √ AND-COORDINATION
 boy and (his) kitten hate-Pl broccoli
 'The boy and his kitten hate broccoli.'
- (15) # Mal'čik nenavidit brokkoli s kotěnkom. # VP-ADJUNCT
 boy hates-Sg broccoli with kitten
 # 'The boy hates broccoli with the kitten.'

Parallel facts hold with other non-agentive predicates. Thus acceptability of a comitative with non-agentive verbs like *nenavidet* 'to hate' becomes diagnostic for non-VP-adjunct status.

2.4. Wh-Extraction of the Comitative

The example in (16) is ambiguous between the three readings given in (a), (b), and (c). These readings arise from the three possible structures in (17a–c), respectively, where *s kotěnkom* 'with kitten' is a VP-adjunct in the first, a conjunct in the second, and a nominal modifier in the third:

- (16) Ivan nabljudat nad mal'čikom s kotěnkom.
 I-Nom watches over boy with kitten
- a. 'Ivan watches over the boy (together) with a kitten.
 b. 'Ivan watches over the boy and the kitten.'
 c. 'Ivan watches over the boy who has a kitten/
 the boy with the kitten.'

By contrast, the possessive anaphor in (20) must be understood as singular, taking only the Nominative subject *mal'čik* 'boy' as its antecedent:¹

- (20) Mal'čik_i s kotěnk_j ušěl v svoju_{i/*j/i+j} komnatu.
 boy with kitten went.Sg to self's room
- a. 'The boy went to **his** room with the kitten.'
 VP-ADJUNCT READING
- b. 'The boy with the kitten went to **his** room.'
 NP-ADJUNCT READING

This behavior follows from their respective structures. In (19a) *s kotěnk_j* 'with kitten' is a comitative conjunction, as shown by the plural verb agreement. The structure is thus as in (21a), where the only c-commanding antecedent for the reflexive is the entire conjunction *mal'čik s kotěnk_j* 'the boy and the kitten'. By contrast, in (20) *s kotěnk_j* 'with kitten' is an adjunct, as shown by singular verb agreement. Its structure is as in (21b, c), where only the Nominative subject c-commands the reflexive, and hence only the Nominative subject is a possible antecedent for it.

- (21) a. [Mal'čik_i s kotěnk_j]_{i+j} ušli v svoju_{i/*j/i+j} komnatu.
 WITH-COORDINATION
 boy-Nom with kitten-Instr went.PI to self's room
 'The boy and the kitten went to their room.'
- b. Mal'čik_i [_{VP} s kotěnk_j ušěl v svoju_{i/*j} komnatu.]
 VP-ADJUNCT
 boy-Nom with kitten-Instr went-Sg to self' room
 'The boy went to his room with the kitten.'
- c. [Mal'čik s kotěnk_j]_k ušěl v svoju_k komnatu.
 DP-ADJUNCT
 boy-Nom with kitten-Instr went-Sg to self' room
 'The boy with the kitten went to his room.'

Thus binding is also a test for the syntactic status of comitatives.

The following table summarizes the properties of the three comitative structures discussed in this section.

¹ It is possible to use a plural *non-reflexive* possessive pronoun here. That would be a case of split antecedence:

- (i) Mal'čik s kotěnk_j ušěl v ix komnatu.
 boy with kitten went.Sg in their room
 'The boy_i with the kitten_j went into their_{i+j} room.'

(22)

T	VP-adjuncts	Comitative coordination	NP-adjuncts
<i>with</i> -PP participates in the action denoted by the verb	Yes, together with subject	Yes, not necessarily together	Possibly (by inference)
<i>with</i> -PP affects verb agreement	No	Yes	No
<i>with</i> -PP can be extraposed	Yes	No	No
<i>with</i> -PP occurs with ‘to hate’	No	Yes	Yes
<i>with</i> -PP can be <i>wh</i> -moved	Yes	No	No
<i>with</i> -PP can be a co-binder for an anaphor	No	Yes	No

3. PPC COMITATIVES ARE SPECIAL

Given the well-founded distinction between the three comitative constructions, it is natural to ask whether the comitative in the Plural Pronoun Construction can be reduced to one of these three types. Interestingly, as discussed in Vassilieva (2001), PPC comitatives do *not* pattern consistently either as conjuncts or as VP/DP adjuncts.

Number agreement provides no test for PPC patterning since the plural pronoun always induces plural agreement. However, with respect to gender agreement, PPC behaves like comitative coordination and no other type of comitative. Since Russian does not distinguish gender in plural, this point must be illustrated with examples from Polish, another Slavic language with coordinative and PPC constructions that are very similar to Russian.² In Polish, verbs are marked virile plural if *at least one* of the subject referents is personal/masculine (23). As discussed in Dyła (1988, 2003), the gender of the comitative referent affects the gender marking of the plural verb in *with*-coordination and PPC (24a, b), but not when the *with*-phrase is an adjunct (24c, d).

- (23) a. Ewa i Janek poszli na spacer.
 (Dyła 1988:385)
 E.-**fem** and J.-**masc** went-3pl.**virile** for walk
 ‘Eve and John went for a walk.’

² One difference between Russian and Polish comitative structures is that the latter but not the former allow pronouns as first elements of *with*-coordination. Therefore, (24b) could also be interpreted as ‘We and Marcin...’

- b. Ewa i Maria poszły na spacer.
(Dyła 1988:385)
E.-**fem** and M.-**fem** went-3pl.**non-virile** for walk
'Eve and Mary went for a walk.'
- (24) a. Ewa z Jankiem poszli na spacer.
(Dyła 1988:386)
E-**fem** with J-**masc** went.Pl.**virile** for walk
WITH-COORDINATION
'Eve and John went for a walk.'
- b. My z Marcinem pojechaliśmy na zakupu.
(Dyła 2003:90)
we with M.-**masc** went-1pl.**virile** shopping
PPC-INTERPRETATION
'I(**fem**/masc) and Marcin went shopping.'
- c. My z Marcinem pojechałyśmy na zakupu.
(Dyła 2003:90)
we with M.-**masc** went.-1pl.**non-virile** shopping
VP-ADJUNCT
'We went shopping with Marcin.'
- d. Kobieta z małym chłopcem zmarszczyła brwi
(Dyła, p.c.)
woman with small boy-**masc** frowned-3sg.**non-virile**
NP-ADJUNCT
'The woman with a small boy frowned.'

With respect to the extraposition, however, the *with*-phrases of PPC constructions appear to behave like VP-adjuncts and unlike the two other types of *with*-phrases:³

- (25) **My** pojděm zavtra s **Ivanom** v magazin i vsě kupim.
we go-Fut tomorrow with Ivan to store and all buy-Fut

³ We do not commit ourselves here as to how the discontinuity in (25) is produced, e.g., by rightward extraction of the comitative ((ia)) or leftward extraction of the pronoun ((ib)) (a possibility suggested to us by Anna Cardinaletti), or by some other process:

- (i) a. [My t_i] znajem [s Petej]_i nemeckij.
we know-Pl with P-Instr German
b. My_i znajem [t_i s Petej] nemeckij.
we know-Pl with P-Instr German
'Peter and I know German.'

We note, however, that if discontinuity in these cases is parallel to what is found with English exception phrases, then the analysis in (ib) appears dubious.

- a. 'Ivan and I will go to the store tomorrow and get all (we need).'
- b. 'We'll go with Ivan to the store tomorrow and get all (we need).'
- c. *'We and Ivan will go to the store tomorrow and get all (we need).'

✓ PPC

✓ VP-ADJUNCT

* WITH-COORDINATION⁴

Unlike VP adjuncts, the PPC is capable of appearing with verbs like 'to hate'. Note that only the PPC interpretation is available in (26).

- (26) My s Ivanom nenavidim brokkoli.
we with Ivan hate-1st PI broccoli
- a. 'Ivan and I hate broccoli.' ✓ PPC INTERPRETATION
- b. *'We hate broccoli with Ivan' * VP-ADJUNCT INTERPRETATION
- c. *'We and Ivan hate broccoli.' * COORDINATION

When the *with*-phrase is questioned, the PPC interpretation is not available. Again, PPC-comitatives appear to pattern with NP-adjuncts and *with*-coordination.

- (27) S kem my xodili v magazin?
with whom we went to store
- a. *'I and who went to the store?' * PPC-INTERPRETATION
- b. 'With whom did we go to the store?' ✓ VP-ADJUNCT
- c. *'We and who went to the store?' * WITH-COORDINATION

When we test the *with*-phrases in the PPC on their ability to co-bind an anaphor, they pattern with comitative conjuncts.

- (28) My s Petej čitaem svoju knigu.
we with Peter read self's book
- a. 'Peter_i and I_j are reading our_{i/*j/i+j} book'
- b. 'We_i are reading our_{i/*j/*i+j} book with Peter_j.'

PPC-INTERPRETATION

VP-ADJUNCT INTERPRETATION

To summarize, the sequence of 'we + comitative' on its PPC reading (I + comitative referent) patterns like none of the other three types of comitative. Similarly to NP-adjuncts and comitative conjuncts, it co-occurs with verbs like 'to know' and is blocked from *wh*-extraction. Unlike *with*-

⁴ Personal pronouns of the first and second person cannot occur in comitative coordination in Russian (see also (26c) and ((33a)). Third person pronouns are possible:

- (i) On s nej pojduť zavtra v magazin.
He with her go-Fut tomorrow to store
'He and she will go to the store tomorrow.'

conjuncts and NP-adjuncts, however, it can be separated from the nominative noun by the verb. And unlike NP-adjuncts, it can bind an anaphor and influence gender agreement with the verb.

These results might appear to suggest that the PPC differs from *with*-coordination in only one property, namely the ability of the *with*-phrase to extrapose. In fact, however, there are many other differences between the two constructions.

As we have seen, comitative conjunctions with *s* ‘with’ are highly similar to true conjunctions with *i* ‘and’, as seen in (29a, b) (= (13b, c)). The two are typically interchangeable:

- (29) a. Ivan **s** **Petej** znajut nemeckij. WITH-COORDINATION
 I-Nom with P-Instr know-Pl German-Acc
 ‘Ivan and Peter know German.’
- b. Ivan **i** **Petja** znajut nemeckij. AND-COORDINATION
 I-Nom and P-Nom know-Pl German-Acc
 ‘Ivan and Peter know German.’

By contrast, the PPC has no equivalent true coordination; exchanging *i* ‘and’ for *s* ‘with’ alters its meaning entirely, as (30) shows:

- (30) a. My **s** **Petej** znajem nemeckij. PPC-COMITATIVE
 we with P-Instr know-Pl German
 ‘Peter and I know German.’
- b. My **i** **Petja** znajem nemeckij. AND-COORDINATION
 we and P-Nom know-Pl German
 ‘Peter and **we** know German.’

Furthermore, there is an asymmetry in the PPC not found with comitative conjuncts. Whereas the elements in a comitative conjunction can be freely inverted, as in (31a, b), this is not true in the PPC. In the latter, the plural pronoun must come first, and the verb must agree with it, as in (32a, b):

- (31) a. Maša **s** **Sašej** tancevali. WITH-COORDINATION
 M-Nom with S-Instr danced-Pl
 ‘Masha and Sasha danced.’
- b. Saša **s** **Mašej** tancevali. WITH-COORDINATION
 S-Nom with M-Instr danced-Pl
 ‘Sasha and Masha danced.’

- (32) a. My **s** **Petej** tancevali. PPC-COMITATIVE
 we with P-Instr danced-Pl
 ‘Peter and I danced.’
- b. *Petja **s** **nami** tancevali.
 P-Nom with us-Instr danced-Pl
 ‘Peter and I danced.’ * PPC INTERPRETATION
 ‘Peter and we danced.’ * WITH-COORDINATION

Finally, whereas Russian pronouns normally do not occur in comitative coordination, as seen in (33a), and are dispreferred (Urtz 1994) in true coordinations with *i* ‘and’, like (33b), the PPC **requires** a plural pronoun. As (34) shows, a combination of a *plural noun* and comitative phrase cannot have the inclusive interpretation found in PPC.

- (33) a. *Ty **so** **mnoj** tancevali. WITH-COORDINATION
 you-Sg with me-Instr danced-Pl
 ‘You and I danced.’
- b. Ty **i** **ja** tancevali. AND-COORDINATION
 you-Sg and I-Nom danced-Pl
 ‘You and I danced.’
- (34) Studenty **s** Petej sideli na divane.
 students with Peter sat on sofa
 a. ‘Students sat on the sofa with Peter.’ VP-ADJUNCT
 b. ‘Students and Peter sat on the sofa.’ WITH-COORDINATION
 c. ‘Students (who came with Peter) sat on the sofa’
 DP-ADJUNCTION⁵
 d. *‘Peter and another student sat on the sofa.’
 * PPC-LIKE INTERPRETATION

We draw a strong conclusion from these results. The data we have reviewed plainly suggest that, despite surface status as an *s*-phrase, the Russian PPC comitative is *not* an instance of either of the other three comitative construction types. Rather, we suggest that it corresponds to a new, fourth class.

4. PPC COMITATIVES AS PRONOUN COMPLEMENTS

The proposal we wish to advance about the PPC can be motivated by some simple but familiar observations about the relations between singular and plural pronouns.

⁵ We are grateful to an anonymous reviewer for suggesting this interpretation.

4.1. *Plural Pronouns as “Incomplete” Terms*

In explaining the relation between *I* and *we*, and between *you* (singular) and *you* (plural), it is commonplace to put things like this: “*We* refers to the speaker plus some other individuals,” or “*You* can refer to the addressee plus someone else.” In other words, we describe the reference of the plural pronoun as if it were derived from the reference of the corresponding singular pronoun by the addition of individuals Δ , according to the schema in (35a, b). By extension, we might describe the third person plural, at least in certain instances, in terms of the reference of the third singular plus others, as in (35c):⁶

- (35) a. *we* = *I* + Δ
 b. *you(pl)* = *you(sg)* + Δ
 c. *they* = *he/she/it* + Δ ⁷

This way of viewing plural pronouns is not only semantically natural (at least for the 1st and 2nd person forms), it is also morphologically natural in certain languages. Vietnamese forms plural pronouns directly from singulars by addition of a suffix *-chúng*, which derives from a Chinese word meaning ‘people’ and is reserved for the pronouns listed in (36a–c). Similarly, Melanesian Pidgin forms plural pronouns from singulars using the suffix *-fela* (cf. *fellow*), which is not a general plurality marker.

- (36) Vietnamese (Nguen 1996) Melanesian Pidgin (Mühlhäusler 1989)
 a. *tao* 1sg *chúng tao* 1 pl d. *mi* 1sg *mi-fela* 1 pl
 b. *mày* 2sg *chúng mày* 2 pl e. *yu* 2sg *yu-fela* 2 pl
 c. *nó* 3sg *chúng nó* 3 pl f. *him* 3sg *him-fela* 3 pl

⁶ Second and third person plural pronouns have additional readings where they refer (roughly speaking) not to a single, specified individual + unspecified group, but rather to a specified group. These readings occur, for example, when someone addresses a whole committee as “you”, or refers to that committee with “they”. In such cases, no single individual is favored.

One way of handling these cases is as a special form of singular reference, i.e., reference to single objects that happen to be pluralities (see Link (1983) for one very influential proposal along these lines). The formal status of these pronouns as plural could then be viewed as similar to what happens in British English, where expressions like “the committee” can trigger plural agreement even though they refer to a single object which is a group.

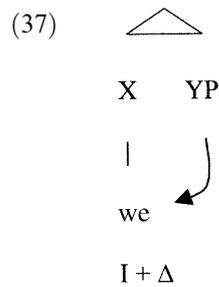
⁷ Kayne (2000) cites some interesting binding facts suggesting that *they* might be analyzed as in (35). He notes that although *they* cannot c-command both of its antecedents without violating Principle C, as seen in (ia, b), it can apparently c-command *one* of its antecedents, as in (ic):

- (i) a. John_i told Bill_j that they_{i,j} should leave.
 b.*They_{i,j} told John_i that Bill_j should leave.
 c. John_i told me that they_{i,j} decided that Bill_j should leave.
 d. John_i told me that they_i decided that Bill_j should leave.

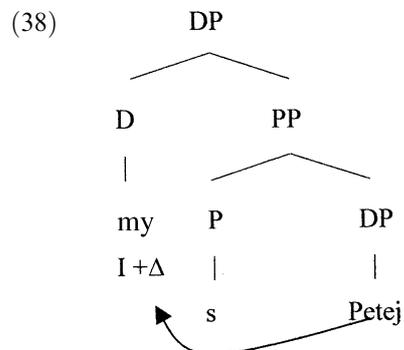
This fact is accounted for if *they* bears only a single index, equivalent to a singular pronoun; cf. (id). This idea is very natural under the proposal that *they* is essentially *he/she/it* + Δ .

It is highly tempting to view the surface morphological composition in (36) as directly reflecting the intuitive semantic composition in (35).

Now observe that when we view plural pronouns as in (35), we are in effect claiming that along with a well-defined “singular nucleus”, a plural pronoun also contains an unspecified, or “unsaturated”, element Δ in its meaning. It is “incomplete” in the sense that until this element is specified, the pronoun fails to refer. This raises the interesting possibility that the grammar might actually provide a syntactic means for “filling in” this unspecified element, for example, by letting a phrase that is sister to the pronoun specify the content of Δ , as shown schematically in (37). Note that such a phrase YP would function as a complement of the pronoun, completing its meaning. Note further that the semantics of their combination would result in the reference of YP always being included in the reference of the plural pronoun.



We wish to propose that plural pronouns in Russian (and in general) can have the semantic composition in (35). Thus *my* ‘we’, *vy* ‘you(pl)’, and *oni* ‘they’ (on at least one of its meanings) are semantically complex, composed of a singular “core” plus an additional set whose content is left unspecified in its lexical meaning. Furthermore, we propose that the Russian PPC is precisely an instance of the structure in (37), where the comitative is a complement of the pronoun head D, supplying the unspecified individual(s) in the plural pronoun meaning:



The complement hypothesis has an empirical consequence that seems to provide further evidence against an alternative adjunct account. Notice that if the comitative PP is indeed a pronoun complement, we would expect it to “saturate” the open position in the pronoun’s meaning, blocking further complement comitatives. This prediction is correct, as (36) shows. Although it would be perfectly reasonable in general terms to specify other individuals in the group given by the plural pronoun, multiple comitatives of this kind are not possible, as shown in (36a). The two comitative elements must be interpreted as forming a constituent together, as in (36b).

- (36) a. *My [s Petej] [s Ivanom] pojděm domoj.
 b. My s [Petej s Ivanom] pojděm domoj.
 we with P-Instr with I-Instr go-1Pl.Fut home
 ‘I and [Peter and Ivan] will go home.’

The complement account also allows for surface iteration of comitatives in PPCs of the kind shown in (37):^{8,9}

- (37) a. My s [vami s Petej] pojděm domoj.
 we with [you-Pl-Instr with P-Instr] go-1Pl.Fut home
 ‘[I + [you.sg + Peter]] will go home.’

⁸ We are grateful to Chris Barker for pointing out the importance of cases like (37a–c).

⁹ Recursive PPC examples are perceived as cumbersome (although grammatical) by Russian speakers. Furthermore, recursive PPCs, like PPCs in general, are subject to an independent constraint requiring pronouns of a lower person to be structurally superior to pronouns of a higher person. Thus first person pronouns must be superior to second person, which must in turn be superior to third person. This effect is observed in simple PPCs like (i-a, b):

- (i) a. My s nej tancuem.
 we with her dance-1st Pl
 ‘She and I dance.’
 b. *Oni so mnoj tancujut.
 they with me dance-3rd Pl
 ‘She and I dance.’

This accounts for the unacceptability of the recursive PPCs in (ii-a–c), which are variants of (37a–c), respectively:

- (ii) a. *Vy s nami s Petej pojděte domoj.
 you-Pl with us-Instr with P-Instr go-2Pl.Fut home
 ‘[You-Sg + [I + Peter]] will go home.’
 b. *Oni s nami s Petej pojduť domoj.
 they with us-Instr with P-Instr go-3Pl.Fut home
 ‘[He + [I + Peter]] will go home.’
 c. *Oni s uami s Petej pojduť domoj.
 they with you-Pl-Instr with P-Instr go-Fut home
 ‘[He + [you-Sg + Peter]] will go home.’

- b. My *s* [nimi *s* Petej] pojdëm domoj.
 we with [them-Instr with P-Instr] go-1Pl.Fut home
 ‘[I + [he + Peter]] will go home.’
- c. Vy *s* [nimi *s* Petej] pojdëte domoj.
 you-Pl with [them-Instr with P-Instr] go-Fut home
 ‘[You-sg + [he + Peter]] will go home.’

These are instances of recursive PPCs, in which each comitative is a complement of the preceding pronoun. (37a), for example, receives the analysis in (38), where *s Petej* ‘with Peter’ is the complement of *vami* ‘you(pl)’, and where the whole of *s vami s Petej* ‘with you with Peter’ is the complement of *my* ‘we’:

- (38) [DP My [PP *s* [DP *vami* [PP *s* Petej]]]]

As predicted, despite the presence of two plural pronouns together with the comitative *s Petej* ‘with Peter’, the interpretation of (37a) involves only three individuals.

Finally, the complement analysis has also the attractive result that comitatives in Russian are seen to execute essentially the same range of functions that they do elsewhere. Recall that comitative *with*-phrases in English have three main functions: as (adjunct) modifiers to VP or DP, as in (39), as something very like conjuncts with inherent reciprocal verbs, as in (41), and as themes/complements with certain verbs and adjectives, as in (41):

- (39) a. John walked **with Peter**. ADJUNCT *WITH*-PHRASE (VP or DP)
 b. A girl **with braids** sat on the sofa.
- (40) John collided **with Peter**. CO-AGENT *WITH*-PHRASE(?)
 (cf. *John and Peter collided*.)
- (41) a. John awarded Peter **with a prize**. COMPLEMENT *WITH*-PHRASE
 b. John was angry/happy **with Peter**.

On the proposal advanced here, comitative *s*-phrases in Russian exhibit these three functions as well: as nominal or verbal adjuncts, as comitative conjuncts and also as complements, in this case to D.

4.2. Formal Semantics for PPC Comitatives

We make the complement hypothesis precise using the formalism of Larson and Segal (1995), in which sentences are assigned truth values with respect to a context sequence σ , as in (42), and where the first four positions of any

sequence (designated “ $\sigma(a)$ ”, “ $\sigma(b)$ ”, “ $\sigma(c)$ ”, and “ $\sigma(d)$ ”, respectively) are understood as the speaker, the addressee, the speaker time, and the speaker location in the context, as in (43a). Indexical pronouns get their values through these elements; cf. (43b, c).¹⁰

$$(42) \quad \text{Val}(t, S, \sigma)$$

$$(43) \quad \text{a. } \sigma(a) \sigma(b) \sigma(c) \sigma(d)$$

$\sigma = \langle \text{speaker, addressee, speaker time, speaker location, } \dots \rangle$

$$\text{b. Val}(x, [D \text{ I}], \sigma) \quad \text{iff } x = \sigma(a)$$

$$\text{c. Val}(x, [D \text{ you}], \sigma) \quad \text{iff } x = \sigma(b)$$

Other positions in the sequence, identified by numerals, fix the reference of other deictic (but non-indexical) elements in the sentence, as shown in (44a); the reference of non-indexical pronouns is determined through them, as in (44b):

$$(44) \quad \text{a. } \sigma(1) \sigma(2) \sigma(3) \dots$$

$\sigma = \langle \text{spkr, adrs, spk time, spk loc} \mid \text{Mary, John, the Eiffel Tower, } \dots \rangle$

$$\text{b. Val}(x, [D \text{ he}_2], \sigma) \quad \text{iff } x = \sigma(2) \text{ (i.e., John)}$$

Now let the distributive (“all of”) interpretation of Russian plural pronouns be as in (45a–c), where these items are analyzed as determiners, following Postal (1969), and where “ $\sigma(a)$ ” refers to the speaker (with respect to context sequence σ):

$$(45) \quad \text{a. Val}(\langle X, Y \rangle, [D \text{ my}], \sigma) \quad \text{iff } |(\{\sigma(a)\} \cup Y) - X| = 0$$

“(all of) speaker + others Y ”

$$\text{b. Val}(\langle X, Y \rangle, [D \text{ vy}], \sigma) \quad \text{iff } |(\{\sigma(b)\} \cup Y) - X| = 0$$

“(all of) addressee + others Y ”

$$\text{c. Val}(\langle X, Y \rangle, [D \text{ oni}_i], \sigma) \quad \text{iff } |(\{\sigma(i)\} \cup Y) - X| = 0$$

“(all of) he/she/it + others Y ”

Under these rules, the pronouns are all relational; Y specifies the set of individuals – in addition to the speaker, addressee, etc. – referred to by the plural pronouns.

Suppose further that the comitative PP *s Petej* ‘with Peter’ is interpreted simply as the set Y containing Peter:

$$(46) \quad \text{Val}(Y, [PP \text{ s Petej}], \sigma) \quad \text{iff } Y = \{\text{Peter}\}$$

¹⁰ See Dalrymple et al. (1998), Den Dikken et al. (2000), and Ladusaw (1989) for alternative semantic analyses of the PPC.

And let the semantics of a Determiner + PP complement be as given in (47), which simply identifies the value of the second argument of the determiner with the set given by the PP:

$$(47) \quad \text{Val}(X, [\text{DP D PP}], \sigma) \text{ iff } \text{Val}(\langle X, Y \rangle, \text{D}, \sigma) \ \& \ \text{Val}(Y, \text{PP}, \sigma)$$

Identification of Y values for (45a) and (47) will yield the result in (48) for the full DP $[\text{DP } my \ s \ Peterj]$ ‘we with Peter’:

$$(48) \quad \begin{aligned} \text{Val}(X, my \ s \ Peterj, \sigma) & \text{ iff } |(\{\sigma(a)\} \cup \{\text{Peter}\}) - X| = 0, \text{ i.e.,} \\ \text{Val}(X, my \ s \ Peterj, \sigma) & \text{ iff } |(\{\sigma(a), Peter\}) - X| = 0 \end{aligned}$$

Thus the comitative supplies the “unsaturated” element in the interpretation of my , as desired.

The formal results in (47) and (48) are directly comparable to the interpretations assigned, respectively, to a relational quantifier ((49a)), a nominal ((49b)), and the interpretation of a full, quantified DP in which the latter is the complement of the former ((49c)):

$$(49) \quad \begin{aligned} \text{a. } \text{Val}(\langle X, Y \rangle, [\text{D } every], \sigma) & \text{ iff } |Y - X| = 0 \\ \text{b. } \text{Val}(Y, [\text{NP } boy], \sigma) & \text{ iff } Y = \{y : \text{boy}(y)\} \\ \text{c. } \text{Val}(X, [\text{DP } every \ boy], \sigma) & \text{ iff } |\{y : \text{boy}(y)\} - X| = 0 \end{aligned}$$

In fact, the rule used to assemble a plural pronominal DP from its plural pronoun head D and comitative complement (PP) can be easily generalized to assemble a quantificational DP from its quantifier head D and nominal complement (NP), as in (50), where X ranges over N and P :

$$(50) \quad \text{Val}(X, [\text{DP D XP}], \sigma) \text{ iff } \text{Val}(\langle X, Y \rangle, \text{D}, \sigma) \ \& \ \text{Val}(Y, \text{XP}, \sigma)$$

4.3. Results and Further Discussion

We conclude now by briefly recalling the properties that distinguish PPC comitatives from comitative conjuncts and adjuncts, and seeing how the proposal advanced here fares with them.

Our analysis successfully accounts for various respects in which the PPC comitative behaves like a conjunct. Since the PPC comitative is not a modifier of V , we correctly predict that it will be compatible with non-agentive Vs , as seen in (26a). And since its reference is included in the reference of the plural pronoun, we predict that it will also be included in the reference of any anaphor that is bound to the plural pronoun, as seen in (28a). (Examples repeated below.)

$$(26) \quad \begin{array}{ll} \text{My } s \quad \text{Ivanom nenavidim brokkoli.} & \\ \text{we with Ivan} \quad \text{hate-1stPl broccoli} & \\ \text{a. 'Ivan and I hate broccoli.'} & \text{PPC-INTERPRETATION} \end{array}$$

- (28) My s Petej čitaem svoju knigu.
 we with Peter read self's book
 a. 'Peter_i and I_j are reading our_{*i/*j/i+j} book.'
 PPC-INTERPRETATION

We also account for various respects in which the PPC comitative behaves *unlike* a conjunct. First, we see why the PPC is not interchangeable with coordination, as evident in (30a, b): the comitative PP is a governed complement, not a second conjunct. We also see why the plural pronoun and *s*-phrase DP are not symmetrically invertible like conjuncts; cf. (32a, b). The pronoun and comitative stand in a head–complement relation, which is not symmetric. Finally, we see why the PPC is exempt from the constraint disfavoring coordinated pronouns in Russian; cf. (33a). Again, the PPC is not coordination, but rather complementation. The constraint on pronouns simply does not apply.

- (30) a. My s **Petej** znajem nemeckij. PPC-COMITATIVE
 we with P-Instr know-Pl German
 'Peter and I know German.'
 b. My i **Petja** znajem nemeckij. AND-COORDINATION
 we and P-Nom know-Pl German
 'Peter and **we** know German.'
- (32) a. My s **Petej** tancevali. PPC-COMITATIVE
 we with P-Instr danced-Pl
 'Peter and I danced.'
 b. *Petja s **nami** tancevali.
 P-Nom with us-Instr danced-Pl
 'Peter and I danced.'
 * PPC-INTERPRETATION
 * WITH-COORDINATION
- (33) a. *Ty so **mnoj** tancevali. WITH-COORDINATION
 you-Sg with me-Instr danced-Pl
 'You and I danced.'

There are two data points that our analysis does not obviously account for as it stands: the fact that the PPC comitative can occur discontinuous from the plural pronoun, as in (25a), and the fact that it cannot be questioned, seen in (27a). The former suggests that the comitative *can* be extracted from the complement of D, whereas the latter seems to imply that it *cannot*.

- (25) **My** pojdëm zavtra s **Ivanom** v magazin i vsë kupim.
 (discontinuity)
 we go-Fut tomorrow with Ivan to store and all buy-Fut
 a. 'Ivan and I will go to the store tomorrow and get all (we need).'
- √ PPC
- (27) s kem my xodili v magazin? (wh-extraction)
 with whom we went to store
 a. *'I and who went to the store?' * PPC-INTERPRETATION

We are unable to resolve this issue at present, but we note that the behavior of the comitative seems to be identical in relevant respects to that of exception phrases, which (at least according to Keenan and Stavi (1983) and Larson (1991)) are also D complements. Exception phrases also can appear discontinuous from the universal D that licenses them ((51a–c)), but cannot be *wh*-questioned ((52)):¹¹

- (51) a. [_{DP} Everyone except (for) Peter] danced.
 b. Everyone danced [except (for) Peter.]
 c. [Except (for) Peter] everyone danced.
- (52) a. *Except (for) whom did everyone dance?
 b. *Who did everyone except (for) dance?

Note also that PPC comitatives appear to perform a semantic function which is similar, but opposite, to that of exception phrases. Whereas the former *add* their reference to that of the D head, the latter *subtract* their reference from D. It seems plausible to us, therefore, that a proper grasp of (25a) and (27a) will lie with the understanding of a broader class of phenomena, which includes exceptive elements.

Finally, there are some broader comparative questions that this work naturally gives rise to. The account of the PPC we offer is based on an analysis of plural pronoun semantics that is presumably universal. This might lead one to expect the PPC in all languages. Nonetheless, although the PPC is widespread, it is not universal. English, for example, lacks this form. Why? What parameters govern this variation?

Relatedly, even in languages that do contain the PPC, plural pronouns are not required to take a comitative complement. What then is the analysis of the bare plural pronoun forms? Is there a covert comitative complement

¹¹ See also Reinhart (1991) and von Stechow (1993) for more on exceptive-constructions.

in the syntax, or is the pronoun somehow “detransitivized” in the lexicon? We leave these very interesting questions for future investigation.¹²

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¹² Vassilieva (in progress) develops an extension of ideas by Rizzi (1986), proposing that some languages contain a small *pro* complement of the pronoun in the syntax, whose value is fixed by context, whereas other languages “saturate” the comitative argument of the plural pronoun in the lexicon, in effect detransitivizing it.

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