

Group nouns in Russian as heads and as modifiers

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1. Introduction

This paper deals with a special type of noun phrases, namely with phrases that are formally headed by so-called group nouns (such as *committee* or *pack*) denoting groups of individuals¹. These **group NPs** (or **group terms**) show specific behavior in that they are usually combinable with (semantically or morphologically) plural predicates even where group nouns are singular — as in examples (1a) and (1b):

- (1) a. *The committee are killed.*
- b. *The committee meets on Tuesday.*
- c. *John and Mary / My friends meet on Tuesday.*
- d. **John meet(s) on Tuesday.*

At least in British dialects of English singular group nouns allow plural agreement (1a) and in all varieties of English (and presumably in all other languages) group NPs can be found with predicates (such as *meet* in (1b)) which are typically used only with plural and conjoined phrases (1c) but not with singular NPs (1d).

In Russian, although plural agreement with singular group terms is possible (2a)², it is very restricted (2b)³; yet all group NPs seem to be compatible with semantically plural predicates (2c).

¹ Some of the nouns discussed in this paper can also denote units of mass. Although there is a clear similarity between plural individuals and mass individuals (see Link 1983), the latter are left beyond the scope of this paper.

² Throughout this paper the following abbreviations are used: ACC — accusative, DAT — dative, F — feminine, G — genitive, INF — infinitive, LOC — locative, M — masculine, N — neuter, NOM — nominative, PL — plural, PRT — particle, SG — singular.

- (2) a. *Množestvo* *studentov* *prišlo* / *prišli*.
multitude-NOM.SG student-G.PL came-SG.N / came-PL
‘A lot of students came.’
- b. *Prišla* / **Prišli* *gruppā* *studentov*.
came-SG.F / came-PL group-NOM.SG student-G.PL
‘A group of students came.’
- c. *Vstretilas’* *gruppā* *studentov*.
met-SG.F group-NOM.SG student-G.PL
‘A group of students met.’

One natural question arising in relation to these examples is how we can represent the denotation of group nouns and group NPs, or to be more precise, whether the units of individuals denoted by, say, *committee* in (1) and *množestvo* and *gruppā* in (2) can be identified with the plural sums of the members of these units (henceforth, **associated sums**). The answer given by Barker (1992) and Schwarzschild (1996) and more or less accepted in recent formal semantics literature is negative. Both Barker and Schwarzschild argued that the denotations of group nouns are atomic and hence group NPs have properties that are different from the properties of expressions denoting associated sums.

In this paper I suggest that this conclusion is true only partly — so that although group nouns⁴ indeed denote atomic individuals, singular group NP denotations may be either atomic or plural, being identified in the latter cases with a plural sum of members of a group. This possibility, I argue, is provided in Russian by a semantic head-shift occurring in one of the two basic patterns accompanying group nouns, namely the membership genitive construction. Being argumental, this construction is contrasted with a purely modificational construction introducing the associated sum by means of the preposition *iz*.

³ See Iomdin 1990 for a detailed description of agreement in Russian and also Corbett 1998 for the general discussion of the issues of agreement in Slavic languages.

⁴ For the sake of simplicity, I disregard here partitive quantity nouns such as *čast’* ‘part’, since they are somewhat different in their behavior from “ordinary” group nouns.

The structure of this paper is as follows. In Section 2 I will discuss some basic grammatical means of accessing associated sums in group noun terms, with a particular attention to the two constructions mentioned above. Section 3 presents a formal semantic representation of these constructions. The last section contains concluding remarks.

2. Accessing the associated sum

2.1. Restricting the associated sum

If group NPs indeed may denote associated sums, it seems reasonable to suppose that one must have access to the information about some property satisfied by all members of a group (**associated property**) — at least in order to prevent the possibility of unrestricted quantification. Interestingly, this is the case: seemingly, in almost any utterance containing a group noun, some predictions can be made about what the group consists of⁵.

There are three possible sources for the information about an associated property. First, such information can be obtained from the lexical semantics of a group noun. Thus, for example, committees (by default) consist of humans. On the other hand, such nouns as *para* ‘pair’ — at least in their quantity use (3b) — do not seem to presuppose anything except that their members are countable (information we have already assumed; see fn. 1).

- | | | | |
|-----|----------------------------|----------------------------|--------------------------------------|
| (3) | <i>para</i>
pair-NOM.SG | <i>olenej</i>
deer-G.PL | a. ‘a pair of deer’
b. ‘two deer’ |
|-----|----------------------------|----------------------------|--------------------------------------|

Another source of information is context. In the second clause of (4) the information about the associated property of *trojka* ‘threesome’ (that is, that a three-man squad here consists of soldiers) is derived from the context, or to be more precise, from the first clause.

⁵ One possible exception is the mathematical use of such terms as *set*.

- (4) *Kogda soldat podelili na trojki,*
 when soldier-ACC.PL divided-PL into threesome-ACC.PL
ja poprosil jednu trojku,
 I:NOM asked.for-SG.M one-ACC.SG.F threesome-ACC.SG
čtoby perekryt' ovrag.
 in.order.to block-INF ravine-ACC.SG
 'When the soldiers were divided into threesomes, I asked one
 threesome to block the ravine.'

Finally, an associated sum may be overtly described within the group NP itself; in English this is done with the preposition *of* (as in *the committee of the men* or *one committee of men*). Russian employs two constructions for this, which are, however, not interchangeable. The first is the membership genitive construction illustrated in (5a), and the second is the construction with the preposition *iz* (roughly, meaning 'from, of') (5b).

- (5) a. *staja sobak*
 pack-NOM.SG dog-G.PL
 'a/the pack of dogs'
 b. *komissija iz etix činovnikov*
 commission-NOM.SG iz this-G.PL official-G.PL
 'a/the commission of these officials'

In the rest of this section I discuss some relevant properties of these two constructions.

2.2. The "membership genitive" construction

In most respects, the genitive construction describing the associated sum (6a) is similar to other instances of the adnominal genitive (6b).

- (6) a. *armija* *geroev* ‘an army of heroes’
 army-NOM.SG hero-G.PL
 b. *armija* *Napoleona* ‘Napoleon’s army’
 army-NOM.SG Napoleon-G.SG

Still, there are some interesting features peculiar to the membership genitive construction. Thus, consider (7):

- (7) *komissija* *von* *tex* *činovnikov*
 commission-NOM.SG PRT that-G.PL official-G.PL
 ‘those officials’ commission’;
 *‘a/the commission of those officials’

In contrast to (6a), in (7) the membership reading of the genitive is prohibited. It can be argued, in fact, that the infelicity of the membership genitive in (7) originates in definiteness of the genitive phrase (which is underscored here by the deictic particle *von*)⁶. Furthermore, it can be shown that the membership genitive

⁶ Interestingly, this is not correct for some group nouns. For instance, the very noun *gruppa* ‘group’ allows explicit deictic genitive in some contexts:

- (i) *Gruppa* *von* *tex* *ljudej*
 group-NOM.PL PRT that-G.PL people-G.PL
 stoit *zdes’* *polčasa.*
 stand-3SG here half.an.hour
 ‘The group of those people has been standing here for half an hour.’

However, this is possible only if a verb is in present tense: if we change the verb *stoit* ‘has been standing’ in (i) to *stojala* ‘was standing’, the sentence will become infelicitous. This may be accommodated if we assume that the deictic particle and the demonstrative in (i) refer to *gruppa* but not to *ljudej*, since the noun *gruppa* denotes a unit that is not temporally stable. Although such a solution may seem quite unusual from the current view on the syntax/semantics interface, note that Russian does have similar constructions. For instance, in constructions with numerals governing the case of a quantified nominal, attributes can be dependent on either a numeral or a nominal without any obvious differences in meaning.

phrase with group nouns (such as *komissija*) cannot even be specific and typically prohibits quantifiers and numerals (8):

- (8) *komissija* *opredelennyx* / *trex*
 commission-NOM.SG certain-G.PL / three-G.PL
 / *vsex* *činovnikov*
 / all-G.PL official-G.PL
 ‘certain/three/all officials’ commission’
 *‘a/the commission of certain/three/all officials’

Another interesting fact is related to the interpretation of demonstratives in membership genitives. Thus, while usually demonstratives can have either strong (referential) or weak (non-referential) readings (9), demonstratives with genitive complements of group nouns are always weak (10) – presumably, due to the impossibility of a specific interpretation of the dependent.

- (9) *Eti* *ljudi* *ne* *znajut* *styda*.
 this-NOM.PL people-NOM.PL not know-3PL shame-G.SG
 ‘These/this kind of people do not know what shame is.’
- (10) *gruppa* *etix* *ljudej*
 group-NOM.SG this-G.PL people-G.PL
 a. ‘a/the group of people of this kind’
 b. *‘a/the group of these people’

Note also that possessives are allowed in the position of complement:

- (ii) *Eto* *banda* *ego* *druzej*.
 this gang-NOM.SG his friend-G.PL
 ‘This is a gang of his friends.’

But it may be argued that although possessives tend to be definite, they need not be definite. Thus, in (ii) the genitive NP cannot either refer to already familiar discourse referents or satisfy the uniqueness/maximality condition on definites.

Further, the membership genitive phrase seems to be obligatorily adjacent to its head. In particular, in the so-called “double genitive” construction (where one genitive phrase follows another genitive phrase) membership genitives cannot be external to other genitives (11), a property which in fact may be attributed to their non-specificity (since a non-specific genitive is never external in this construction). In addition to this, membership genitives cannot extrapose (12a), although this property seems to be common for all genitives (12b).

- (11) a. *brigada rabočix Ivana Sobakina*
team-NOM.SG worker-G.PL Ivan-G.SG Sobakin-G.SG
‘Ivan Sobakin’s team of workers’
b. **brigada Ivana Sobakina rabočix*
- (12) a. **Staja mne vstretilas’*
pack-NOM.SG me:DAT was.met-SG.F
zlyx sobak.
vicious-G.PL dog-G.PL
(expected:) ‘I met a pack of vicious dogs.’
b. *??? Pesnja pelas’ kazakov.*
song-NOM.SG was.sung-SG.F Cossack-G.PL
(expected:) ‘Some song of Cossacks was sung.’

Both adjacency and semantic properties of the membership genitive argue for considering it a semantic argument of a noun (Partee and Borschev 2000). Thus, even if we accept the widespread view according to which the genitive is an argument only if the expressed relation is implicated by the head, the membership genitive turns out to be argumental. Further, at least with some group nouns, the genitive seems to be obligatory in sense that its omission presents an apparent case of ellipsis (13).

- (13) *??? Ja videl tam djužinu.*
I:NOM saw-SG.M there dozen-ACC.SG
‘I saw a dozen there.’

It is interesting, however, that a large number of group nouns strongly select their genitive complements, requiring them to express a speaker's evaluation of the members of a group. Thus, for example, with *komitet* 'committee' the membership genitive cannot restrict the associated sum, but instead provides the means to express a speaker's evaluation (cp. (14) and (15)).

- (14) *komitet* *krestjan*
 committee-NOM.SG peasant-G.PL
 a. 'the peasants' committee' or
 'a/the committee representing interests of peasants'
 b. ??? 'a/the committee of (the) peasants'
 (until *krestjan* 'of peasants' is used as evaluative)
- (15) *komissija* *idiotov*
 commission-NOM.SG idiot-G.PL
 'a/the commission of idiots'

Or else, we find similar group nouns shifting their meaning when they are used with a restricting membership genitive – as in (16)⁷.

- (16) *armija* *činovnikov* 'a lot of officials'
 army-NOM.SG official-G.PL

Given the fact that all such nouns have lexical semantics that strongly restricts their associated sums, the following generalization can be made:

- (17) a. The restricting membership genitive is impossible where a group noun determines (to some degree) its associated sum through its lexical semantics.
 b. In the case of counterexamples like (16) the meaning of a group noun must be shifted to one that does not determine its associated sum.

⁷ Compare (16) with (6a), where *geroev* 'of heroes' can be understood either as restrictive or as non-restrictive genitive, and this in fact gives two readings: (i) 'an army consisting of heroes', and (ii) 'a lot of heroes.'

2.3. The *iz* construction as opposed to the genitive construction

Besides its use with group nouns (18), the preposition *iz* has a range of functions which are typically expressed by ablative markers in Indo-European languages (19).

- (18) *gruppa* *iz* *Marii*, *Petra* *i* *Pavla*
 group-NOM.SG *iz* Maria-G.SG Petr-G.SG and Pavel-G.SG
 ‘a/the group of Maria, Petr, and Pavel’
- (19) a. *odin* *iz* *nix* ‘one of them’
 one-NOM.SG *iz* they:G
- b. *paren’* *iz* *Saratova* ‘a/the boy from Saratov’
 boy-NOM.SG *iz* Saratov-G.SG
- c. *dom* *iz* *peska* ‘a/the house of sand’
 house-NOM.SG *iz* sand-G.SG

When used with group nouns, the prepositional construction is sometimes interchangeable with the genitive construction. For example, in (20) the preposition *iz* can well be omitted:

- (20) *Eto* *komissija* (*iz*) *idiotov*.
 this commission-NOM.SG (*iz*) idiot-G.PL
 ‘This is a commission of idiots.’

Nevertheless, in most relevant respects the construction with *iz* is different from the membership genitive construction. Thus, it does allow specific phrases to be complements of *iz* (examples (18), (21)); the preposition phrase need not be adjacent to its head (22) and can extrapose (23).

- (21) *komissija* *iz* *trex* / *etix* *činovnikov*
 commission-NOM.SG *iz* three-G / this-G.PL official-G.PL
 ‘a/the commission of three unknown officials’

- (22) *gruppa* *podderžki* *mera*
 group-NOM.SG support-G.SG mayor-G.SG
 iz *vos'mi* *čelovek*
 iz eight-G person-G.PL
 'the mayor's support group of eight people'
- (23) *Komanda* *vyigrala* *iz* *pjati* *norvežcev.*
 team-NOM.SG won-SG.F *iz* five-G Norwegian-G.PL
 'A team won of five Norwegians.'

Finally, an *iz* phrase is typically omissible and usually cannot be used with group nouns which do not determine their associated properties (24) — presumably because the omission of an *iz* phrase could result in ill-formedness with these nouns. On the other hand, there is no prohibition on the use of the *iz* construction with any kinds of dependent noun phrases (25).

- (24) **para* *iz* *idiotov*
 pair-NOM.SG *iz* idiot-G.PL
- (25) *komitet* *iz* *krestjan* 'a/the committee
 committee-NOM.SG *iz* peasant-G.PL of peasants'

I suggest, then, that unlike the membership genitive, which is indeed probably an argument, the *iz* phrase (in its membership meaning) is in fact an intersective modifier which introduces the associated sum.

The coexistence of two constructions with roughly the same meaning but with different structural possibilities should lead us to suspect that there are other distributional differences between the two constructions. This seems to be the case.

Thus it turns out that only group NPs with a membership genitive can refer to an associated sum. Some examples are (26) and (27):

- (26) *Menja* *navestila* *gruppa* (**iz*) *kolleg.*
 me:ACC visited-SG.F group-NOM.SG *iz* colleague-G.PL
 'I was visited by a group of colleagues.'

- (27) *Oni* — *prosto* *gruppa* (**iz*) *studentov*.
 they:NOM simply group-NOM.SG *iz* student-G.PL
 ‘They are simply a group of students.’

On the other hand, the use of the *iz* construction is highly preferable where the associated sum reading of the whole NP is impossible:

- (28) *Prezident* *sformiroval* *grupp* *(*iz*)
 president-NOM.SG formed-SG.M group-ACC.PL *iz*
činnikov *dlja* *podgotovki* *etogo* *zakona*.
 official-G.PL for preparing-G.SG this-G.SG law-G.SG
 ‘The President formed a group of officials for preparing this law.’

The semantic, syntactic and distributional differences between the two constructions under discussion are summarized below:

		genitive	<i>iz</i> phrase
Semantic	specificity	prohibited	permitted
	associated sum denotation of the whole NP	possible	impossible
Syntactic	adjacency to the head	required	not required
	extraposition	infelicitous	felicitous
	omission in corresponding contexts	not allowed	allowed

3. Proposal

3.1. Basic assumptions

In this section I propose semantic representations for the membership genitive construction and for the *iz* construction⁸. Such representations must take into account at least the following points:

⁸ In this paper I completely ignore intensionality.

1) while *iz* phrases are modifiers, genitive phrases are arguments;

2) only genitive constructions can refer to the associated sums.

Following Barker (1992) and Schwarzschild (1996), I assume that group nouns denote atomic individuals, which are, however, linked to some plural associated sums via the relation **constitute**. This relation can be established either by some meaning postulate such as (29) or by some operation of introducing the relation in the qualia structure of group nouns⁹.

$$(29) \quad \forall x [\mathbf{group}(x)] \exists y [\mathbf{constitute}(y,x) \ \& \ P(y)]$$

Further, I propose that the associated property must be specified in any concrete utterance. This is reflected in (29) by the predicate variable *P*, which presumably cannot be bound by existential closure. Sometimes the associated property can be specified by the lexical semantics of a group noun. Thus, for example, for the noun *committee* the corresponding meaning postulate will roughly look like (30):

$$(30) \quad \forall x [\mathbf{committee}(x)] \exists y [\mathbf{constitute}(y,x) \ \& \ \mathbf{human}(y)]$$

In some other cases the predicate variable is specified by the context. The situations we are interested below, however, are those where the internal part of the scheme (29) is affected by some overt material within a NP, namely by the genitive construction or by the *iz* construction. I will start from the latter, since it is considerably simpler.

3.2. *The semantics of group iz*

As we have seen in the previous section, the preposition *iz* introduces phrases referring to associated sums; for example, in (18) and in a variant of (21) repeated here as (31a) and (31b), the

⁹ See Pustejovsky 1995 for the notion of ‘qualia structure’ and Copestake 1995 for an application of this approach to group nouns (in English).

embedded phrases refer to the members of the corresponding groups.

- (31) a. *gruppa iz Marii, Petra i Pavla*
group-NOM.SG *iz* Maria-G.SG Petr-G.SG and Pavel-G.SG
‘the group of Maria, Petr, and Pavel’
b. *komissija iz trex činovnikov*
commission-NOM.SG *iz* three-G official-G.PL
‘a/the commission of three officials’

(It is important that embedded phrases introduced by *iz* must refer to the whole associated sums¹⁰. Thus, the phrase (31a) cannot denote a group consisting of Maria and Pavel, or of Maria, Petr, Pavel, and John. Just similar, (31b) cannot refer to a commission of two or five officials.)

A simplest way to account for these constructions is to assume that *iz* itself can mean the relation **constitute**, and to assign it the interpretation (32). Then the composition of (31a) will look like (33)¹¹:

- (32) $\|iz\| = \lambda y \lambda x \text{ constitute } (y, x)$
(33) $\|Marii, Petra i Pavla\| = \text{Maria} \oplus \text{Petr} \oplus \text{Pavel}$
 $\|gruppa\| = \lambda x \text{ group}(x) \ \& \ \exists z \text{ constitute}(z, x) \ \& \ P(z)$
 $\|iz \ Marii, Petra i Pavla\| = \lambda y \lambda x \text{ constitute } (y, x)$
 $(\text{Maria} \oplus \text{Petr} \oplus \text{Pavel}) = \lambda x \text{ constitute } (\text{Maria} \oplus \text{Petr} \oplus \text{Pavel}, x)$
 $\|gruppa \ iz \ Marii, Petra i Pavla\| =$
 $\lambda x \text{ constitute } (\text{Maria} \oplus \text{Petr} \oplus \text{Pavel}, x) \ \& \ \text{group}(x) \ \& \ \exists z$
 $\text{constitute}(z, x) \ \& \ P(z) =$
 $= \lambda x \text{ group}(x) \ \& \ \text{constitute } (\text{Maria} \oplus \text{Petr} \oplus \text{Pavel}, x) \ \&$
 $P(\text{Maria} \oplus \text{Petr} \oplus \text{Pavel})$

¹⁰ It is a shortcoming of Barker's (1992) proposal that he had to assume that the “group noun *of*” can introduce a proper part of an associated sum. In fact, when doing so, Barker presumably tried to unify two functions of the preposition *of*, which in Russian, however, are expressed by different constructions.

¹¹ For the sake of simplicity I disregard case endings here.

Another way is to assign *iz* an interpretation where it does not provide the relation **constitute** itself, but rather looks for some component of the internal semantic structure of its head and identifies it with the complement of the preposition. Although this approach seems to be more complicated, it can perhaps help us to obtain a uniform representation of different uses of *iz*. I leave this topic for future research, however.

Anyway, this construction as a whole must refer to a group and not to an associated sum. Further, the associated property in this case retains its ability to be specified by the context or by the lexical semantics of a noun. This, in fact, distinguishes the *iz* construction from the genitive construction, as we will see in the next subsection.

3.3. The semantics of the membership genitive

As for the membership genitive, we know that it must be non-specific, we suppose that it is an argument, and we find that the whole construction can denote the associated sum. I capture all these facts by proposing that the membership genitive refers not to the associated sum but to the associated property. The information about it cannot be optional (hence the argument status) and it is of the predicate type $\langle e, t \rangle$ rather than of the entity type e (hence non-specificity). Thus, for (34) we obtain the derivation as in (35): the genitive *detej* ‘of children’, although it clearly serves as an argument of the type-shifted noun *gruppa* ‘group’, in practice only restricts the associated sum variable. This is very similar to what happens with incorporated nominals in West Greenlandic (van Geenhoven 1998), and it is worth noting that adjacency is clearly close to incorporation, and may be thought as a realization of the same semantic process.

(34) *gruppa* *detej* ‘a group of children’

group-NOM.SG children-G.PL

(35) $\|gruppa\| = \lambda x \text{ group}(x) \ \& \ \exists z \text{ constitute}(z, x) \ \& \ P(z)$

$\|detej\| = \lambda y \text{ children}(y)$

$\|gruppa\|_{\text{SHIFTED}} = \lambda P \lambda x [\text{group}(x) \ \& \ \exists z \text{ constitute}(z, x) \ \& \ P(z)]$

$$\begin{aligned} \llbracket \text{gruppa detej} \rrbracket &= \lambda P \lambda x [\text{group}(x) \ \& \ \exists z \text{ constitute}(z,x) \ \& \ P(z)] \\ (\lambda y \text{ children}(y)) &= \lambda x \text{ group}(x) \ \& \ \exists z \text{ constitute}(z,x) \ \& \ \text{children}(z) \end{aligned}$$

As one can see, in (35) we once again get a group reading. There are, however, good reasons to think that already at this stage the construction can be reanalyzed.

Note that the interpretation of the group noun here is of the type $\langle\langle e, t \rangle, \langle e, t \rangle\rangle$, that is of the standard modifier type. That the formal head may indeed be treated as a semantic modifier is supported by occasional plural agreement, as in (2a) repeated here as (36).

- (36) *Množestvo* *studentov* *prišlo* / *prišli*.
multitude-NOM.SG student-G.PL came-SG.N / came-PL
‘A lot of students came.’

The plural agreement is possible, however, only (but not always) if the whole phrase refers to the associated sum. And this may be a clue. I propose that the associated sum reading is possible where the group noun is reanalyzed as a semantic modifier, thus motivating a semantic “head-shift.” Since modifiers are likely to be interpreted relatively to their heads, the *modifying* group variable should be in the scope of the associated sum variable. Hence we get a reading such as (37):

$$(37) \llbracket \text{gruppa detej} \rrbracket = \lambda z \exists x \text{ group}(x) \ \& \ \text{constitute}(z,x)$$

Of course, such a reading cannot be obtained where the group is already specific and therefore has “wide scope”, in which case the whole phrase receives atomic reading. Examples (38) and (39) illustrate the impossibility of deictically modified group NPs in a context with possible plural agreement (cf. (36)) and in a predicative position (cf. (27)) respectively¹².

¹² Not surprisingly, (39) becomes felicitous when intonation makes it known that *oni* is a focused predicate.

- (38) **Eto* *mnozhestvo* *prishli*.
 this-NOM.SG.N multitude-NOM.SG came-PL
- (39) **Oni* — *eta* *gruppa* *studentov*.
 they:NOM this-NOM.SG.F group-NOM.SG student-G.PL

Further, the associated sum reading must be infelicitous where the group is interpreted as a covert partitive and hence as having wide scope. This prediction is borne out, as one can see from (40), which is a slightly modified version of (4):

- (40) *Kogda* *soldat* *podelili* *na* *trojki*,
 when soldier-ACC.PL divided-PL to threesome-ACC.PL
 ja *poprosil* *odnu* *trojku*
 I:NOM asked.for-SG.M one-ACC.SG.F threesome-ACC.SG
 (**soldat* /[?]*molodyx* *rebjat*),
 soldier-G.PL /[?]young-G.PL boy-G.PL)
 čtoby *perekryt'* *ovrag*.
 in.order.to block-INF ravine-ACC.SG
 ‘When the soldiers were divided into threesomes, I asked one
 threesome (*of soldiers /[?]of young boys) for blocking the ravine.’

Now, returning to the associated properties, the theory just proposed predicts the possibility of use of the genitive where neither context nor lexical semantics of a group noun can determine these properties, and this is correct as we have seen above. On the other hand, we may expect that the membership genitive construction will turn out to be needless when the associated property is already determined by some other factors. The doubtful acceptability of (40) confirms this expectation, as does the infelicity of using restricting membership genitives with group nouns that strongly select their associated sums.

To summarize, I suggest that while the membership genitive is an argument of the group noun, it can be interpreted either as a semantic modifier or as a semantic head, and that this is a consequence of its property interpretation.

4. Conclusion and loose ends

In this paper I discussed two constructions employed in Russian group NPs, namely the membership genitive construction and the construction with the preposition *iz*. I argued that although both of them can be translated with English *of*, they are different in that the *iz* construction modifies a group noun, providing information about the associated sum, while the membership genitive dependent of a group noun functions as an argument, providing information about the associated property. In particular, the use of the genitive construction may give rise to a semantic head-shift (sometimes also reflected by plural agreement), in which case the whole phrase turns out to be capable of denoting the plural associated sum.

This cannot be the whole story, and a lot of questions remain unsolved.

First, although I have tried to show some necessary conditions for such a head-shift, I have not explicated sufficient conditions. Thus it seems that the associated sum reading is usually preferable with quantity nouns (which do not determine any associated property), the more so since it is sometimes not easy to draw a clear borderline between group nouns and high numerals such as *million* ‘million’. Interestingly, however, the possibility of the associated sum reading sometimes disappears when the quantity noun turns out not to denote some (more or less) precise quantity, for example when it has plural inflection and is not modified by numerals. This provides a link to constructions with numeral classifiers, which are also typically required to be determined with respect to quantity and moreover sometimes show the same head-shift phenomenon (Lander 2001).

The role of the Aristotelian distinction between quantity and quality in the constructions with group nouns is perhaps even more important. Thus, we have already seen that the associated sum reading sometimes forces the shift to a quantity interpretation (as in (16), repeated here as (41a)), and further, such a reading turns out to be even more preferable when a group noun is modified by some quantity-focusing adjective (41b). However, the reverse phenomenon is also observed: in (41c) the *iz* modifier triggers the

“not only quantity” interpretation of the (originally) quantity noun *trojka* ‘threesome’:

- (41) a. *armija* *činovnikov*
 army-NOM.SG official-G.PL
 ‘a lot of officials’; *‘the army of officials’
- b. *celyj* *komitet* *činovnikov*
 whole-NOM.SG.M committee-NOM.SG official-G.PL
 ‘a whole committee of officials’
- c. *trojka* *iz Antona, Ivana i L’va*
 threesome-NOM.PL iz Anton-G.SG Ivan-G.SG and Lev-G.SG
 ‘the group of Anton, Ivan, and Lev formed for some specific
 purpose (e.g., a court)’;
 *‘three men who are Anton, Ivan, and Lev’

It is worth noting that definiteness also plays a role here, and this is not surprising given that it is non-specificity of a group that may result in the associated sum reading and head-shift. The picture should be even more vivid in languages with overt marking of definiteness, and indeed it is. Thus, such constructions as pseudo-partitives, which clearly exhibit at least some features of head-shift (Selkirk 1977; Vos 1999), often require an indefinite article, as shown in (42). And this phenomenon is arguably also linked to our observations concerning group NPs.

- (42) a. *a number of people* (were ...)
 (Quantity interpretation; head-shift)
- b. *the number of people* (was ...)
 (No quantity interpretation or head-shift)

Finally, a few words about the very notion of head-shift should be said. In fact, what we have observed is mainly the shift of a semantic head, which is only occasionally reflected in the external syntax of these NPs (see Corbett 1998). The problem is therefore related to the syntax-semantics interface, and there remains a lot to be done in this field (but see Gawron 2002 for a recent attempt). Note, however, that the very idea of head-shift presupposes that the

“former head” still preserves some of the head properties, so the absence of some one-to-one correspondence between semantic and syntactic structures here may be describable via some non-standard distribution of head properties between a group noun and its genitive complement (cf. Zwicky 1993).

So constructions with group nouns do not seem to be something isolated in the linguistic structure, but their relations to similar phenomena require further investigation¹³.

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