

REFERENCE AND ANAPHORIC RELATIONS

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1 PROBLEMS STATED

In this paper I deal with the phenomena that are known as Definiteness effect - namely, with combinability restrictions that are at work in English *there*-sentences. The distinction of strong vs. weak determiners was introduced in Milsark (1977) (and formalized in Barwise & Cooper 1981) in order to give an explanation to these restrictions. I would like to discuss the same set of facts from a different perspective, adding to English *there*-sentences their Russian equivalents (on definiteness effect in languages others than English see Szabolczi (1986), Kiss (1995). I start with examples (21)-(26) from Bach (1989, 58), numbered here as (1)-(6):

- (1) There is *a pig* in the garden.
- (2) There were *three sailors* standing on the corner.
- (3) There are *many solutions* to this problem.
- (4) *There is *every tiger* in the garden.
- (5) *There were *most students* in the hall.
- (6) *There are *all solutions* to this problem.

Sentences (1)-(3) are OK while (4)-(6) are not, though they differ from the corresponding (1)-(3) only in the Determiners of the subject NP. The first approximation may be that *there* + *be* in these sentences generates an *existential context* for its subject (existential context being the context of a predicative existential quantifier). Indefinite subjects - as in (1)-(3) - do not contradict the existential context, and these sentences are OK; while the subjects in (4) and (6) include explicit exponents of *universal* quantification (namely, quantifier adjectives *every*, *all*), and it is not surprising that these sentences are ungrammatical: existential quantification expressed by the predicate contradicts the universal quantification in the subject NP. So one question is, why (5), though its subject is, most probably, indefinite, is also ungrammatical?

Another question is of a more general nature. Examples (4) and (6) seem clear only if indefiniteness is treated as a kind of existential quantification, which it is not. Indefinite pronouns may be completely out of place in existential context:

- (7) a. *Nekotorye tigry sushchestvujut. □Some tigers exist □
 b. *Nekotorye tigry ne sushchestvujut. ‘Some tigers do not exist’

Thus, a more subtle analysis is needed anyway.

I shall compare English *there*-sentences with their Russian translations: the interlingual comparison makes the semantic content we retrieve from sentences of both languages more reliable. The problem with sentence (1) is that if you want a good Russian translation of it you must have some additional information; you can translate (1) either as (1'a), perhaps, with an implication that it's a kind of disorder, or as (1'b) - if it is clear from the context that somebody is in need of a pig; otherwise you cannot translate (1) into Russian at all (below for each English sentence its literal translation into Russian is given - in brackets - and an adequate Russian equivalent or equivalents):

- (1') [Tam est'svinja v ogorode] =
 a. V ogorode svinja. [literally: 'In garden pig']
 b. V ogorode *est'* svinja. [literally: 'In garden is pig']

Sentences (2) and (3) are transparent for translation:

* The author is grateful to Barbara Partee for her psychological support and invaluable help. Thanks are due to the anonymous reviewer for her friendly comments to the initial versions of the paper.

- (2') [Tam est' tri matrosa stojashchix na uglu] =
Na *uglu stojat* [= naxodjatsja] tri matrosa.
- (3') [Tut est' mnogo reshenij etoj problemy] =
Est' I sushchestvuet mnogo reshenij etoj problemy;
U etoj problemy *est' / sushchestvuet* mnogo reshenij.

The Russian translations of (4)-(6) honestly preserve non-grammaticality:

- (4') [Tam est' *kazhdyj* tigr v sadu] =
*V sadu est' *kazhdyj tigr*
- (5') [Tam bylo *bol'shinstvo* studentov v auditorii] =
*V auditorii bylo *bol'shinstvo* studentov
- (6') *Est' /*sushchestvujut vse reshenija etoj problemy.

Thus, definiteness effect in general and the problem with *most* in particular exist not only for the English examples but also for their Russian equivalents.

To the examples from Bach (1987) some sentences from Keenan's (1996, example (45)) were added (here numbered as (8a)-(8d)) - also with their Russian equivalents.

- (8) a. *There wasn't *John* at the party.
Na vechere ne bylo *John'a*.
- b. *There were *most students* on the lawn.
*Na luzhaike bylo *bol'shinstvo* (byla *bol'shaja chast'*) *studentov*.
- c. *Was there *every student* in the garden?
*Byl li *vsjakij* (*kazhdyj*) *student* v sadu?
- d. *There weren't *John's ten students* at the party.
Na vechere ne prisutstvovali vse *desjat' aspirantov Johna*.

Obviously, (8b) illustrates the same point as (5) does, but other examples are new. Note that English non-grammatical sentences (8a) and (8d) yield good Russian sentences - non-grammaticality isn't preserved.

I'll also use several Russian examples, which attracted attention of linguists from time to time but never were analyzed exhaustively. Example (9) illustrates the opposition of non-zero vs. zero form of the verb *byt'* (cf. the same opposition in sentences (1'a) and (1'b) above):

- (9) a. Na verande *est'* kresla. 'There are armchairs at the terrace'
b. Na polu \emptyset okurki. 'There are cigarette-butts on the floor'.

Sentence (9b) may be appropriate with a non-zero form of *byt'* (*Na polu est' okurki*) only if addressed, say, to a person who is supposed to use them somehow. Example (10) is interesting in comparison with (8a) - proper name occurs in the existential context:

- (10) Zhizn' imeet smysl, raz sushchestvuet *Everest*.
'Life has sense as long as there *Everest* exists'.

Example (11) - with two "opposite" quantifications (existentiality is expressed by *there is*; and universality is contained in the NP - *everything*) for one and the same NP - seems to undermine the idea which was used in the explanation of (6'):

- (11) V Grecii vse est'. 'There is everything in Greece' (Chekhov, "Svad'ba").

2 ANALYSIS

All the English *there*-sentences in our list can be assigned a common structure (the same structure is good for Russian equivalents). Namely, the sentence consists of the following parts - each part constituting a separate constituent:

- the verb *to be*, purportedly, in the meaning 'to exist', which creates the existential context
- its subject, postpositive (usually more cautiously called "postcopular NP")

- a modifier of place in the final position - optional, see its absence in (3)
- the expletive *there*, which may be treated as an anticipatory pronoun cataphorically related to the modifier of place if there is one. In our literal translations into Russian *there* is reflected as *tam* or *tut*. In a true translation it disappears, and if the coda is thematic in the English sentence, then in the Russian translation the modifier of place occupies the initial sentence position.

In Comorovski (1995) *there* is interpreted syntactically as something like a higher Subject. But under this analysis the postcopular NP in (1)-(3) would have lost its semantic connection with the verb *to be* inside the *there is* construction. Our interpretation is based upon the supposition that the postcopular NP is the syntactic Subject of *be*. In fact, this Subject-Predicate relation is a prerequisite of the existential context influencing the range of possible determiners in the postcopular NP.

What I am looking for are explanations of the examples above on general semantic grounds. There are three different issues, each of which takes part in creating or canceling non-compatibility of different elements in our sentences: the semantics of Determiners (which we discuss in section 2.1); the Topic-Comment structure (TC-structure) imposed upon a sentence by *there is* construction (see section 2.2); and the semantics of "existential" predicates (see section 2.3).

2.1 The semantics of determiners

I take the analysis of Determiners proposed in Keenan (1996) for granted. In Keenan (1996) *definitions in use* are suggested for Determiners. Determiners are treated as operators which take a domain argument and a scope argument, with a result being a sentence.

In fact, if Determiners are such operators then what they generate is a sentence, and it is irrelevant whether you call the denotation of a sentence (in the context of an utterance, certainly) a truth value, as Frege did, or a situation (perhaps, a set of situations), as a sensible linguist will. A Determiner is a two-argument operator: the first argument is a variable, with its restrictor, and the second is the scope - a predicate having this variable as the only one which is non-bound. When applied to its argument this operator gives a sentence having a truth-value when asserted.

There is a class of NPs which I will call *partitive*¹ after Comorovski (1995) (they are called *proportional* in Keenan 1996), such as *most students*, *some people*, etc. In Paducheva (1985, 213) partitive NPs are treated as having *two-fold quantification* (or two-fold reference). In fact, more often than not the domain of quantification of a partitive NP is itself a concrete set that can be characterized referentially as [+ Definite]. In (12) the domain of the inner quantification - i.e. the quantified set - is marked by brackets:

- (12) a. *odin iz ego mnogochislennykh družej*
= 'one of [his numerous friends]'
- b. *edinstvennyj iz vsekh*
= 'the only one [of all]'
- c. *nekotorye iz nikh*
= 'some of [them]'
- d. *odin iz neskol'kix prisutstvovavshix studentov*
= 'one of [several students that were present]'

For example, in (12d) the primary, inner, quantification is expressed by the word *neskol'ko* 'several' and the exponent of the outward quantification is *odin is* 'one of'.

The domain for the inner quantification in a partitive NP can also be an "open" set - an extension of some common noun (as *students* in *most students*), but for a partitive NP to be used appropriately in a sentence this implied set should be present in the domain of discourse.² Thus, a partitive NP, even if not containing a definite NP, is not indifferent to

the TC-structure.

There is one important distinction in the class of Dets, which was not discussed in Keenan (1996): collective vs. distributive plurality. In fact, for *each*, *every*, *both* only a distributive reading is possible, while *all* and *some* are indifferent to this opposition: both distributive and collective readings are admissible for them. All Dets bearing numeric information are collective in a way: in order to be counted the set must be present in the domain of discourse. But partitive Dets, such as *most* or *half*, are *essentially collective*: not only their meaning explications treat their domain of quantification collectively, but the semantic information that concerns the extension-set occupies a prominent position in their meaning explications. This is not true, e.g., for such Dets as *many* or *five*, which are non-essentially collective.³

2.2 The topic-comment structure of there-sentences

The TC-structure of English *there-sentences* was studied in Comorovski (1995). The notion of *presentative sentence* was introduced in which *be* does not express existence but only contributes to the TC-structure of a sentence: a presentative sentence has a thetic TC-structure, the main predicate of the sentence being the verb inside the coda, cf. *left* in (13):

- (13) There are all / most / several of yesterday's exams *left* to correct. (Example from Comorovski 1995)

In presentative sentences referential possibilities of the postcopular NP are determined not by its syntactic (and, hence, semantic) connection with the verb *to be* but solely by the role of the postcopular NP in the TC-structure - it cannot be contextually bound. No wonder that in such sentences the previously formulated referential conditions on the postcopular NP do not hold.

In agreement with Comorovski (1995), we shall call presentative all *there is* sentences in which the implicit predicate of the postcopular NP comes from the coda. Indeed, if there is a predicate inside the coda then it is this predicate that influences and restricts the referential potential of the postcopular NP and not the verb *to be*, which is the main verb of the sentence only on the surface. In the Russian translation of a presentative sentence it is this coda-predicate that becomes the main verb, while *there is* construction has a bearing only on the word-order:

- (14) There are *some of the new students* coming for dinner. (Comorovski 1995, 153) = Na obed pridet *koe-kto iz novyx studentov*.

Here what "there is", is a fact (of the future arrival of the students), not the students, and this is what differs presentative sentences from genuinely existential ones. From the point of view of the Russian translation, sentence (14) is not existential at all - in Russian the main predicate is *pridut* [future tense] (or *prixodjat* [present tense] in the meaning 'are expected to come'). In other words, if there is a verb inside the coda it replaces *exist* in the semantic structure of a sentence. No wonder that in the context of a verb of appearance, as *coming* in example (14), some kind of novelty is required from the object referred to by the NP, while indefiniteness (correlated with existentiality in one way or other) becomes irrelevant.

Presentative sentences won't be the object of our attention: we are interested in referential restrictions imposed upon the NP by the existential context; meanwhile presentative sentences may not be existential.

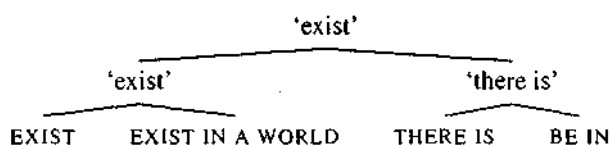
2.3 The semantics of "existential" predicates

There are several words, both in English and in Russian, that are connected with the idea of existence, and several kinds of existential meanings. Below I present each of these meanings as an abstract "lexeme" - as a word of some "lingua mentalis" (in the sense of

Wierzbicka 1980). It is in this way that intricate correspondences can be drawn between words of natural languages and their meanings.

The existential quantifier of logic is taken as a model, because its meaning has been studied carefully. The existential (as well as universal) quantifier makes it possible for the speaker to express a judgment not referring to any concrete objects; otherwise propositions are about individualized objects that the speaker has in mind.

Existence in logic is refined from the idea of place. In natural languages existence is cognate to localization, and we can always ask, presuming that *x* exists, "WHERE does it exist?" (at least, this is the case if the quantified variable *x* runs over a domain of concrete objects; for abstract objects, such as, e.g. natural numbers, this question may not arise). Thus, in natural languages a verb of existence has Locative as one of its arguments; the second is Theme (the existing object). There are several semantic entities connected with the idea of existence, distinguished by the referential and communicative characteristics of their two arguments - Locative and Subject-Theme, see the diagram below:



What follows is a short semantic exposition of the four abstract lexemes, all of them having Subject and Locative as their arguments. The first is the nearest to the existential quantifier of logic, the last is the localization predicate - its affinity with the idea of existence stems from the fact that it also has Locative among its arguments.

2.3.1 EXIST

EXIST presupposes the whole world as its Locative; sometimes this presupposed argument appears on the surface, as in example (21). Another possibility - a non-referential Locative, as *v russkix selen'jax* in example (18).⁴

As for the Subject of EXIST, I claim that it is not an indefinite NP (as is usually assumed because in English there is an indefinite article), but a *common noun* (or *noun phrase*). In other words, the Subject of EXIST is *a property denoting expression*, rather than either referential or quantificational one. Referential characteristics of the Subject of EXIST are the same as those of the predicative argument in constructions (a)-(c):

- a. copular *be* and other copular verbs:
He is *a doctor*. He became *a friend of mine*.
- b. verbs of categorial change:
Saladin transformed this church into *a mosque*.
- c. verbs with predicate-raising:
I consider him *an expert*.

Thus, the subject of EXIST consists of a natural kind name *K* intersected with a property *P*. The point of the resulting proposition is that the property denoted by the subject has a non-zero extension (cf. the analysis in Keenan 1996); in other words, the property *P* distinguishes the subclass of those elements of the set *K* that have this property:

- (15) Est' takie ljudi, kotorye vsegda nedovol'ny.
'There are *people who are always dissatisfied*'.
- (16) Sushchestvujut reki, kotorye letom peresyxajut.
'There are *rivers that get dry in summer*'.
- (17) V mire est' dobrye ljudi.
'There are *kind people in the world*'.
- (18) Est' zhenshchiny v russkix selen'jax. S krasivoju vazhnost'ju lic.

'There are *women* in Russian villages. *With beautiful importance in their faces*'. (N. A. Nekrasov)

The Subject of EXIST is non-referential: the speaker asserting sentences like (15)-(18) does not have in mind any concrete objects or sets of objects. Note that indefiniteness implies referentiality, so that the indefinite article in (a)-(c) doesn't express indefiniteness, which fact disturbed Bertrand Russell, see Russell (1905).

Indefinite Dets are possible in the existential context. But though the referential status (on "referential status" see Paducheva 1985, 83) of the NP in this context is [-Definite], indefinite pronouns have a special use in this context, when only their pragmatic components are at work; for example, what the pronoun *kakie-to* 'some unknown' contributes to the meaning of (19) is the absence of knowledge on the part of the speaker:

- (19) U etoj zadachi est' *kakie-to* reshenija.
'For this problem there are some solutions (I don't know them).'

2.3.2 EXIST IN A WORLD

Another existential lexeme - EXIST IN A WORLD - has an explicit or implicit variable "running" across the worlds: the existence in the real world is opposed to fictitious existence - in the world of a myth, of someone's imagination, etc. (cf. Re-ichenbach 1947, 274); for example, in (20) the real world is opposed to the world of fairy-tales; in (25) the inner world of some person is depicted, etc.

- (20) Rusalok ne sushchestvuet. 'Mermaids do not exist'.
(21) Zhizn' ne bessmyslenna, raz sushchestvuet Everest.
'Life has sense if there exists Everest'.
(22) Homer existed.
(23) Pegasus does not exist [in the real world].
(24) Witches exist only *in tales*.
(25) *For him* women do not exist.

As before, the Subject denotes some property or a combination of properties of objects which are asserted to exist. Hence, if the Subject is a proper noun, the meaning of the sentence aims not at the object itself but at its most salient property (which can be expressed by the corresponding description). In other words, the context of an existential verb coerces *type-shifting* in the Subject (from term to property type). For example, in (21) *Everest* is used as a concealed description of a high and beautiful mountain. If the Locative is omitted the world of existence is, by default, understood as the real one. EXIST opposes existence to non-existence, EXIST IN A WORLD a real world to all the others.

2.3.3 THERE IS

THERE IS differs from EXIST in two non-independent respects. First, the Locative refers to a limited domain, accessible to the Speaker (the speaker's position is inside the Locative). Hence, Locative of THERE IS is normally thematic - it belongs to the Topic. Second, the Subject is referential. On a purely semantic level the speaker only asserts the existence of an object (or a class - in case the Subject is a NP in the Plural) belonging to the class denoted by a common noun - in the same way as with EXIST. On the pragmatic level the speaker singles out this object - means it.⁵ The object is introduced into the context of discourse; thus, the Subject NP of THERE IS is referential - it has a discourse referent:

- (26) Ty xochesh otдохnut'? Na verande est' kreslo.
'You are tired? There is an armchair on the terrace'.

Cf. (26) with (17) where the Subject is unambiguously non-referential. In (17) the choice of Number is determined by some general rules; while in (26) the grammatical Number has

a direct "arithmetical" significance: in a situation where there is more than one armchair and the speaker has no particular object in mind she would normally say *Na verande est' kresla* [Plural], and not *kreslo* [Singular], as in (26).

The Property was kind of an obligatory participant of the situation described with the help of EXIST and EXIST IN A WORLD. For THERE IS it is not: its Subject often is a natural kind noun, which doesn't single out any particular property of objects. Note that Locative, obligatory for THERE IS, is no substitute for the Property argument of EXIST; it does not characterize the object or set in question: the meaning of (26) cannot be adequately rendered by

(26') $\exists x$ (x is an armchair & x is at the terrace)

which can be paraphrased as 'There is at least one armchair that is standing at the terrace', where Locative is rhematic. It is only in a critical situation when the Subject supplies no candidate for a natural kind name that Locative does function as a predicate:

Na stole chto-to est' [There is something on the table]
= $\exists x$ (x is on the table).

Verbs with the meaning THERE IS in Russian are *imet'sja* (3rd sg.: *imeetsja*) and *byt'* (3rd sg.: *est'*):

(27) *Na vokzale imeetsja (est') kamera xranenija*
'There is a cloak-room at the station'.

The lexeme THERE IS makes it possible for the speaker to cancel the presupposition of uniqueness of the object - even if the object is really unique in the space referred to by the Locative - and to emphasize the mere fact of its existence. For example, you can use (27) also under the condition that there is only one cloak-room at the station and you know it. Or if there are two of them. With other verbs this is impossible. For example, you cannot reasonably say that a man came into the room if two of them arrived (cf. Arutjunova 1976). The presupposition of uniqueness is not cancelable in all cases, though: you cannot say, e.g.

(28) **Na kuxne est' mama.* 'There is <a> mother at the kitchen'.

Thus, the fact that the Locative of THERE IS is usually thematic and the Subject is rhematic is deducible from referential properties of these arguments.

2.3.4 BE IN

The last abstract lexeme we need in order to deal with examples (I)-(11) from section 1 is BE IN. This lexeme differs from all those previously discussed in that it does not express existence but localization. Correspondingly, it imposes no restrictions on the TC-structure of a sentence and almost no referential restrictions on the Subject: the Subject can be both definite and universal. The only doubtful case is an indefinite Subject in the rhematic position. For example, in the context of (29) BE IN cannot be distinguished from THERE IS:

(29) *V zdanii byl pripozdnivshijsja aspirant.*
'There was an aspirant in the building'.

The difference between THERE IS and BE IN is that THERE IS, being existential, quantifies the set denoted by the Subject, which, as was said, is a common noun (or noun phrase); while BE IN presupposes autonomous quantification or reference of the Subject.

What unites BE IN with existential sentences is the TC-structure: BE IN can have a rhematic Subject, which is characteristic of existential sentences with THERE IS. The meaning BE IN can be conveyed in Russian by verbs *naxodit'sja* 'be in' and *prisutstvovat'* 'be present'. The verb *prisutstvovat'* has an idiosyncratic TC-structure - with an inverted

word-order. Indeed, (30a), with a rhematic Subject, is normal, while (30b) requires a very special context:

- (30) a. Na sobranii prisutstvoval Ivanov.
[literally: 'At the meeting was present Ivanov'.]
b. Ivanov prisutstvoval na sobranii.
[literally: 'Ivanov was present at the meeting'.]

If we deprive *prisutstvovat'* of its special TC-disposition we get an ordinary verb *naxodit'sja*, which has no special TC-restrictions - except for the fact that it cannot be the bearer of the main sentential stress.

The verb *byt'* can also be used in the meaning BE IN, with the zero form in the present tense (*est'* being reserved for the existential meanings); cf.

- (1') a. = V ogorode Ø [BEIN]svinja.
b. = V ogorode *est'* [THERE IS]svin'ja.

It follows from the analysis presented above that *byt'* can be used in all the four different meanings. In the last one it has the zero form in the present tense (if not negated); while in the former three meanings its present tense form is *est'*. Note that the English *to be* may also be used in all the four meanings.

3 CRUCIAL EXAMPLES REVISITED

I start with those English examples from section 1 where non-grammaticality stems from the meaning of *to be* and compare them to their Russian equivalents. The three existential lexemes impose strong referential restrictions on the Subject NP. Namely, they predetermine existential quantification of the Subject. On the other hand, BE IN, being a predicate of localization, does not impose any referential restrictions upon the Subject.

As we saw, EXIST is a *predicative quantifier*, it fulfills the quantificational job that otherwise should have been done by a Determiner. If so then referential restrictions imposed on a NP by the existential context is not indefiniteness; it is absence of unambiguous referential markers. Consequently, the Subject of existential *there*-sentences must be *referentially incomplete* (as is a common noun). Indefinite Dets in this context preserve only their non-referential (pragmatic) meaning-components, see example (19) from section 2.

Examples (8a) and (8d), where a definite NP is acceptable in Russian, are explained by the difference between the Russian *byt'* and the English *to be*: in Russian a verb with the meaning BE IN can be used with a detopicalized, i.e. rhematic, subject, while for the English *to be* this use is impossible.

The semantic opposition between THERE IS and BE IN explains the difference between Russian examples (1'a) and (1'b). Roughly speaking, the question is whether the predicate in (1) should be translated into Russian as *naxoditsja* 'is in' or *imeetsja* 'there is'. The verb *byt'* has the zero form in the first meaning and the form *est'* in the second. This also gives an explanation to the Russian example (9). In English this semantic difference is left unexpressed, though it is usually clear from the context what is meant. For example, the sentence *There is a cigarette on the table* can have two "pragmatically" different readings: roughly speaking, the fact can be estimated as either good or bad; in Russian this difference is readily expressed. As a matter of fact, the semantics of Russian *imet'sja* (which is, etymologically, a detransitive of *imet'* 'to have') presupposes some kind of involved person - the Possessor;⁶ which person is the implied subject of NEED that differentiates the two Russian translations of the English (1) *There is a pig in the garden*. Compare the meaning of *imet'sja* with that of *naxodit'sja*, which expresses simple localization.

In the Russian example (10) the proper name *Everest* is possible in the context of the lexeme EXIST IN A WORLD, because in the existential context a proper name undergoes

a shift into a relevant description of the denoted object.

Now let's look at example (11). In general, two quantifications of one and the same variable are logically impossible; you cannot say

Imejutsja vse reshenija.* ‘There are all solutions*’.

Sushchestvuyut vse zveri.* ‘There exist all beasts*’.

Sentence (11) is used in Chekhov's story "Svad'ba" in the following context:

- A tigrы u vas v Grecii est'? - Est'.
- A l'vy? - I l'vy est'. Eto v Rossii nichego net, a v Grecii vse est'.
- "- And are there tigers in your Greece? - Yes, there are.
- And the lions? - And the lions. There is everything in Greece."

From this context it is clear that (11) must be understood as meaning ‘In Greece there are representatives of every kind of things’, so that the two quantifications concern different domains of variables - representatives and kinds. There still remain sentences where double quantification seems to make sense:

- (31) V dele *imejutsja vse* neobxodimye dokumenty.
 ‘*There are all* the documents we need in the register’.

which is left as a problem for the future. This much we gain from the lexical semantics of existential verbs.

Other examples get explanation only on the basis of the proposed analysis of determiners. In (8c) *every* and *each* are impossible because they can only be interpreted distributively, while the context requires the collective reading. If we replace *each/every* by *all*, which can be understood collectively, we get a much better sentence: *Were all the students in the garden?* At least its literal translation into Russian is immaculate.

Now about most-examples (5) and (8b) and their Russian counterparts. Let's introduce two new unacceptable sentences - (32c) and (33c):

- (32) a. V zale est' studenty. ‘There are students in the hall’.
 b. V zale est' mnogo studentov. ‘There are many students in the hall’.
 c. *V zale est' bol'shinstvo studentov.
 ‘*There are most students in the hall’.
- (33) a. V zale studenty [literally: ‘In hall students’]
 b. V zale mnogo studentov [literally: ‘In hall many students’]
 c. *V zale bol'shinstvo studentov [literally: ‘In hall most students’]⁷
 d. V etom zale naxoditsja sejchas bol'shinstvo studentov nashego universiteta
 ‘In this hall there are now most part of the students of the University’.

Example (32) differs from (33) in that (32) uses THERE IS (with *est'* in the Present Tense), while (33) uses BE IN (with the zero form of *byt'*). Let's begin with (32).

As we know, most-NPs are partitive, and, thus, have a two-fold reference/quantification: every partitive NP implies a set, either concrete or generic, which constitutes the domain of quantification; for the NP *bol'shinstvo studentov Universiteta* ‘the most part of all the students of the University’ it is the set of all the students of the University. For a partitive NP to be normally used this set must be introduced into the context of discourse. Meanwhile, in the context of THERE IS this is impossible.

Acceptable (32b), with *many*, differs from unacceptable (32c), with *most*, in that in (32b) what is submitted to counting (i.e. is used in the collective reading) is only the set that constitutes the intersection:

- (32') b. V zale est' studenty; ix mnogo
 ‘In the hall [there] are students; of them [there are] many’

the set of all the students (of the University) does not take part in the interpretation of the

sentence. The unacceptability of (32c) stems from the fact that it is contradictory. On the one hand, the set of all the students is relevant for the interpretation. And this set must be looked upon collectively, so it must be present in the domain of discourse. On the other hand, in (32c) only those students must be taken into account that are present in the hall - indeed, the semantics of THERE IS reduces the universe of discourse to those objects that are in the Locative (in our case - to the students that are in the hall); so the set of all the students [of this or that community] cannot take part in the interpretation of sentence (32c). Thus, (32c) is ungrammatical because the requirements of *most* contradict those of *there is*. It might seem at first sight that it is only the TC-structure of (32c) which is "to blame" for its non-grammaticality. Our analysis shows that the reason of non-grammaticality of (32c) lies deeper - in the semantics of the existential lexeme. In fact, look at (34b) where *most* is acceptable in a rhematic position:

- (34) a. *Bol'shinstvo studentov progolosovalo za Barulina.*
 ‘Most students voted for Barulin’.
 b. *Za Barulina progolosovalo bol'shinstvo studentov.*
 ‘For Barulin voted *most students*’.

In sentence (34a) *most* is thematic, and the set of all the students is introduced into the domain of discourse. Surely, (34a) is better than (34b); but (34b) is also acceptable. Both sentences can be paraphrased as follows:

‘Of all the students [of the University, town, etc.] the amount of those who voted for Barulin is more than of those who didn't vote for Barulin’.

Thus, unacceptability of (32c) cannot be accounted for simply by the impossibility of *most* in the rhematic position. TC-structure alone is insufficient. It is a specific property of THERE IS to "narrow the universe".

In the context of sentence (33c) the requirements of *most* are the same as in (32c); and they are not fulfilled because the observer, necessarily present in the context of BE IN, does not see any student except those present in the hall. If we replace *byt'* by *naxodit'sja*, we get (33d), which is OK. In this way we get explanation for examples (5),(5') and (8b). Thus, we conclude. In order to give an account of combinability restrictions in *there*-sentences and their Russian equivalents it is not enough to take into consideration only the semantics of determiners and the Topic-Comment structure: very much depends on the lexical semantics of existential lexemes.

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NOTES

¹ Such NPs as *all of the students*, or *all of us* (in Russian *my vse!*) have the same structure, though they are not partitive.

² There are partitive NPs that do not imply definiteness of the domain of quantification: *kazhdyj vtoroj* = 'one of every two'; *odin iz mnogix* = 'one of many'; but this is phraseology here not taken into account.

³ Keenan's definitions of Dets are given in set-theoretic terms, and it is felicitous from the point of view of clarity and comparability. But it is important to make a distinction between cases where there exists an equivalent 1st order predicate formulations (as for *some*) and the recourse to sets (i.e. extensions taken as a whole) is not obligatory, so that the Det has a distributive reading, and cases where we cannot do without it, so that the meaning of the Det is essentially collective.

⁴ In Russian there are two verbs, *sushchestvuet* 'exist' and *imeet'sja* 'there is', which differ in their presupposed Locative: something *sushchestvuet*, usually, in the world in general (so this modifier of place is omitted), while *imeet'sja* presupposes a narrower space (which must be explicitly stated), usually accessible to the speaker.

⁵ It is usual (beginning with Karttunen 1969) to say that "the NP introduces a discourse referent"; but it is important to bear in mind that, in fact, only the speaker can establish reference. Sentences with THERE IS (and its equivalents, such as *imeet'sja*) are perceptibly "egocentric" in that their meaning presupposes the speaker. Thus, mentioning the speaker in meaning explications is essential.

⁶ Russian existential sentences correlate not only with *there*- but also with *have*-sentences. This is also true for English, e.g. (3) = 'This problem has many solutions'. In fact, in (3) there is no Locative.

⁷ Sentence (33c) is ungrammatical if we want it to be understood as 'Most students OF OUR UNIVERSITY are in the hall'; it can only be interpreted as a casual expression for quite a different idea - 'students constitute the main part of those present'.