

# Quantificational Properties of Neg-Wh Items in Russian\*

Natalia Kondrashova, Radek Šimík

University of Michigan, University of Groningen

## 1. Introduction

This paper has a general and a specific goal. Firstly, it aims to contribute to the discussion of natural language quantification, especially in its syntactic aspect. We argue that the components of generalized quantifiers (GQ) can be base-generated separately and form a unit in the course of the syntactic derivation. In particular, the GQ restrictor is base-generated VP-internally and subsequently raises into the sister position of a determiner which is base-generated in the functional domain of the VP. We call this *Sportiche-style quantification*, following similar proposals of Dominique Sportiche (e.g. Sportiche 2005). In contrast to Sportiche, we assume that this strategy of composing quantifiers exists alongside standard strategies, such as unselective binding and quantifier raising. Secondly, our paper offers a novel analysis of Russian modal existential wh-constructions, especially their negated versions, which are interesting for employing a special negation+wh-word formation, which we call the *neg-wh item*.<sup>1</sup>

- (1) Mashe bylo **ne-gde** ostanovit'sja.  
Masha.dat be.past neg-where stay  
'Masha had no place to stay.'

This phenomenon has been richly discussed in the Slavicist literature (see e.g. Rapaport 1986, Babby 2000, and the references cited therein) but has escaped the attention of a wider linguistic audience. We argue that neg-wh items instantiate Sportiche-style generalized quantifiers.

---

\*[To appear in Proceedings of NELS 40] We would like to thank Jan Anderssen, Rajesh Bhatt, Kyle Johnson, Ezra Keshet, Angelika Kratzer, and Barbara Partee for their feedback. Apart from NELS 40, this work was presented at SLS 4 (Zadar, Croatia), at MLS 39 (Ann Arbor, MI), and in the Groningen Syntax & Semantics circle. We are grateful to the audiences for their comments.

<sup>1</sup>We depart from the standard Russian spelling of neg-wh items. We write *ne-gde* 'neg-where' instead of *negde* and *ne-s-kem* 'neg-with-whom' instead of *ne s kem*. The reasons are the clarity of morphological division in the former case and marking of the unit-like behavior in the latter case.

In section 2, we introduce a syntactico-semantic typology of natural language quantifiers, concentrating on two parameters: the semantic type of the quantificational element and the syntactic position of its first merge. We propose that these parameters map to two empirically relevant properties: selectivity and uniqueness. Section 3 briefly characterizes the empirical phenomenon to be analyzed: modal existential wh-constructions. Section 4 develops the analysis and unveils the full paradigm of Russian modal existential wh-constructions as predicted by our analysis. Section 5 is the conclusion.

## 2. A Typology of Quantification

The existing theories of natural language quantification can be classified along the lines of two parameters—a syntactic one (i) and a semantic one (ii), each having two possible values.

- i. Syntactic position of Q-generation
  - (a) extended NP domain (typically a quantificational determiner)
  - (b) extended VP domain (typically a quantificational adverb or head)
- ii. Semantic type of Q's (first) argument
  - (a) property  $\langle et \rangle$  (typically a quantificational determiner)
  - (b) proposition  $\langle st \rangle$  (typically a quantificational adverb or head)

The four logical combinations of the above parameter values are schematically represented in (2) through (5). The combination (ia)+(iia) is given in (2). It is a case of standard generalized quantification (Barwise and Cooper 1981), which is represented as a relation between two sets. The first argument is provided by the NP restriction and the second by the VP nucleus, created by quantifier raising (May 1977). The combination (ia)+(iib) yields a case where the apparent quantificational determiner is in fact a propositional modifier (3). This style of quantification was proposed by Heim (1982) to account for unselective binding effects in so-called donkey sentences such as *Every farmer who owns a donkey beats it*. NP restrictors (*farmer who owns a donkey*) and indefinite NPs (*a donkey*) are represented as restricted free variables that get bound by the unselective binder (*every*). The combination (ib)+(iib) gives rise to unselective binding from quantificational functional heads or adverbs associated with them, as in (4). Finally, combining the values (ib)+(iia) yields what we call here Sportiche-style quantification (5): the quantificational determiner is generated in the functional domain of the VP and its first argument is provided by an indefinite NP that raises from the VP nucleus. We call this process *restrictor raising*, invoking a parallel to quantifier raising.<sup>2</sup>

- (2) Generalized quantification by quantifier raising (ia)+(iia)
- $$[\text{VP } [\text{QP } \text{Q}^{\langle et, \langle et, t \rangle} \rangle] [\text{NP } \text{NP}^{\langle et \rangle}] ]_1 [\text{VP}^{\langle et \rangle} \lambda_i [\text{VP } \dots t_{1/i}^e \dots]]$$

---

<sup>2</sup>Throughout the paper, we represent binding dependencies by letter subscripts and movement dependencies by numerical subscripts. Semantic types are given in superscripts.

*Quantificational Properties of Neg-Wh Items*

- (3) Unselective binding by determiner-like elements (ia)+(iib)  
 $[\text{VP } Q_{1/i,j}^{(st,st)} [\text{VP}^{(st)} [\text{QP } t_1 [\text{NP} \dots \text{NP}_i^e \dots \text{NP}_j^e \dots]] \text{V} \dots \text{NP}_j^e \dots]]$
- (4) Unselective binding by adverbs or functional heads (ib)+(iib)  
 $[\text{FP } Q_{i,j}^{(st,st)} [\text{VP}^{(st)} \dots \text{NP}_i^e \dots \text{NP}_j^e \dots]]$
- (5) Sportiche-style quantification by restrictor raising (ib)+(iia)  
 $[\text{FP } [\text{F}' Q^{(et,(et,t))} [\text{NP}]_1^{(et)}] [\text{VP}^{(et)} \lambda_i [\text{VP} \dots t_{1/i}^e \dots]]]$

The semantic parameter maps to the empirically observable property of selectivity, making determiners [+selective] and unselective binders [−selective]. We further propose that the distribution of quantifiers base-generated in the functional domain of the VP is restricted by the following uniqueness constraint:<sup>3</sup>

- (6) **Uniqueness:** ... [FP F ... [GP G ... [VP ... ]]] is ungrammatical iff
- (i) FP and GP are functional projections within the same clause/phase and
  - (ii) F and G belong to the same syntactic category

The consequence of (6) is that quantifiers that are heads of functional projections in the VP domain must be unique within a clause/phase. Generalized quantifiers are not subject to uniqueness (they are [−unique]), as their presence in a clause does not depend on the functional properties of the VP (as standardly assumed, but contra the particular proposal of Beghelli and Stowell 1997). Sportiche-style quantifiers, on the other hand, are [+unique] because their quantificational component is introduced as a functional head in the VP domain. Notice that uniqueness does not preclude the presence of more Sportiche-style quantifiers in one clause, provided that each of them is a head of a different functional projection (such as  $\exists\text{P}$  and  $\forall\text{P}$ ). Nevertheless, it does preclude the cooccurrence of a Sportiche-style quantifier with an unselective binder if the two compete for the same functional position.

- |     |            |  |               |
|-----|------------|--|---------------|
| (7) | (ia)+(iia) | Generalized quantification by quantifier raising     | [+sel, −uniq] |
|     | (ia)+(iib) | Unselective binding by determiner-like elements      | [−sel, −uniq] |
|     | (ib)+(iib) | Unselective binding by adverbs or functional heads   | [−sel, +uniq] |
|     | (ib)+(iia) | Sportiche-style quantification by restrictor raising | [+sel, +uniq] |

In §4 we will argue that Russian modal existential wh-constructions come in two versions: one employing an unselective binder and the other one a Sportiche-style quantifier. The two quantifiers are unified under a common syntax (both are subject to uniqueness) but differ in semantics (selectivity) and also morphology. Before we turn to the analysis, we briefly introduce modal existential wh-constructions.

---

<sup>3</sup>The constraint may seem somewhat arbitrary and we agree that it needs to be independently motivated, for which there is no space in this paper. However, notice that many syntactic checking accounts implicitly rely on a similar restriction, since allowing functional heads to freely reiterate would lead to over-generation. For instance, if small v could reiterate, one clause could contain a potentially unlimited number of Accusative-marked DPs.

### 3. Modal Existential Wh-Constructions

Modal existential wh-constructions (MECs; cf. Grosu 2004) exist in most languages spoken in Europe. They have both affirmative (8a,b) and negative (8c,d) versions.

- (8) a. Az embernek mindig van kiben hinni.  
 the man.dat always be.impers who.in believe.inf  
 ‘One can always believe in something.’ *Hungarian* (Lipták 2003:2)
- b. Imam kakvo da četa.  
 have.1sg what to read.1sg  
 ‘I’ve got something to read.’ *Bulgarian* (Rudin 1986:156)
- c. No tengo que ponerme.  
 neg have.1sg what put.on.me.inf  
 ‘I don’t have anything to put on.’ *Spanish* (Plann 1980:142)
- d. Eyn li im mi le-daber.  
 neg:is to.me with whom talk.inf  
 ‘I do not have (anyone) with whom to talk.’ *Hebrew* (Grosu 1994:138)

Their characteristic properties are (i) fronted wh-word(s), (ii) non-indicative (infinitive or subjunctive) mood accompanied by circumstantial existential modal interpretation, (iii) being selected by verbs with an existential component (typically ‘be’ or ‘have’, but also ‘find’, ‘give’, etc.), yielding MECs’ narrow-scope existential interpretation. Russian MECs share all these properties and, in addition to canonical MECs (9a,b), there is a language-specific negative version (9c) in which negation is represented by the neg-wh item. It should be noted that the neg-wh formation behaves as a word, both prosodically and syntactically.

- (9) a. Mashe bylo **gde** ostanovit’sja.  
 Masha.dat be.past where stay  
 ‘Masha had a place to stay.’
- b. Mashe **ne** bylo **gde** ostanovit’sja.  
 Masha.dat neg be.past where stay  
 ‘Masha had no place to stay.’
- c. Mashe bylo **ne-gde** ostanovit’sja.  
 Masha.dat be.past neg-where stay  
 ‘Masha had no place to stay.’ = (1)

There are two types of approaches to the neg-wh item like *negde* in (9c). The first approach, represented mainly by Babby (2000) but adopted also by Grosu (2004), holds that (9b) and (9c) are syntactically identical; it is only at PF or in morphology where the wh-word incorporates into the negation. The second approach, represented e.g. by Rappaport (1986), Apresjan and Iomdin (1989), and followed by Avgustinova (2003), holds that (9c) is syntactically different from (9b). We put forth some novel evidence from MECs with multiple wh-words and argue for a version of the second approach, while retaining the relative simplicity of the first.

#### 4. Quantification in MECs

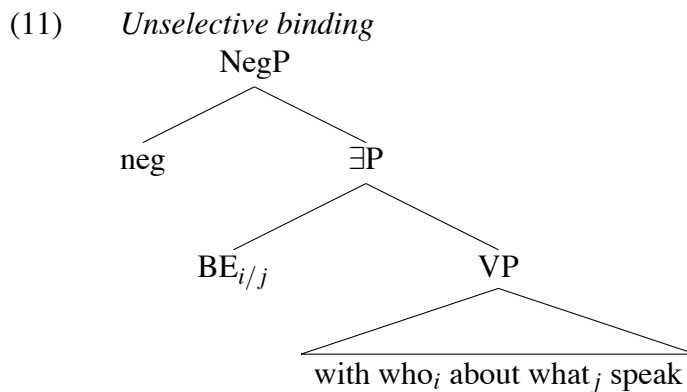
This section contains the analysis of neg-wh items as Sportiche-style quantifiers. Before turning to the proposal (§4.3), we discuss two alternative analyses: the unselective binding analysis (§4.1) and the generalized quantification analysis (§4.2). Even though the former accounts for the canonical MECs (9a,b), both fall short of accounting for the behavior of the neg-wh construction (9c). In §4.4 we show how our analysis accounts for the unexplained facts and in §4.5 we complete the picture of Russian MECs.

##### 4.1 Unselective Binding Analysis

It has been proposed (Pancheva-Izvorski 2000) that MECs in Slavic involve the mechanism of unselective binding (UB), where the verb ‘be’ is the unselective existential quantifier and wh-words are free variables. The evidence for this analysis comes from the fact (first observed by Rudin 1986 for Bulgarian) that Slavic MECs can contain multiple wh-words, all of which receive existential force. Canonical Russian MECs (affirmative (10a) and negative (10b)) demonstrate the same pattern.

- (10) a. Mashe bylo s kem o chem pogovorit’.  
 Masha.dat be.past with who about what talk.inf  
 ‘There was someone for Masha to talk with about something.’  
 b. Mashe ne bylo s kem o chem pogovorit’.  
 Masha.dat neg be.past with who about what talk.inf  
 ‘There was noone for Masha to talk with about something.’

In the formalization of the UB analysis, we use Hamblin semantics (Kratzer and Shimoyama 2002, Šimík 2009), as shown in (12) and (13), and a syntax based on Kondrashova (1996) and Beghelli and Stowell (1997)—using an existential functional projection  $\exists P$ , as illustrated in (11).<sup>4</sup>



- (12) Lexical semantics:  
 $[[\text{who}]] = \{x^e : x \in \text{human}\}$ ;  $[[\text{what}]] = \{x^e : x \notin \text{human}\}$ ;  $[[\text{talk}]] = \text{talk}^{(e,et)}$ ;

<sup>4</sup>We assume that Russian MECs are VPs rather than CPs, an idea that goes back to Chvany (1975) and is recently elaborated in Šimík (2009).

$$\llbracket \text{BE} \rrbracket = \lambda \pi^{\{st\}} \exists p \in \pi \wedge \vee p = 1; \llbracket \text{neg} \rrbracket = \lambda p^{\{st\}} . \neg p$$

(13) Derived semantics:

$$\begin{aligned} \llbracket \text{NegP} \rrbracket &= [\lambda w \neg \exists p . p \in \{\lambda w' . \text{talk}(w')(x, y) : x \in \text{human} \wedge y \notin \text{human}\} \wedge p(w) = 1] \\ &= \lambda w \neg \exists x, y . \text{talk}(w)(x, y) \end{aligned}$$

This analysis works well for canonical MECs (examples in (10)), as shown in (14).

- (14) a. Mashe (**ne**) bylo s **kem o chem** pogovorit'.  
Masha.dat (neg) be.past with who about what talk.inf  
‘There was someone/noone for Masha to talk with about something.’
- b. [TP Mashe<sub>1</sub> [NegP (ne) [∃P bylo [VP s kem<sub>2</sub> o chem<sub>3</sub> [VP t<sub>1</sub> pogovorit' t<sub>2</sub> t<sub>3</sub> ]]]]]
- c. [ $\lambda w(\neg) \exists p . p \in \{\lambda w' . \text{talk}(w')(x, y) : x \in \text{human} \wedge y \notin \text{human}\} \wedge p(w) = 1]$

Is this analysis applicable to the neg-wh construction? Following Babby (2000), we can assume that the wh-word incorporates into the negative marker at PF, without any syntactic or semantic impact. This means that at LF the wh-word is available for being bound by the unselective quantifier BE, and the interpretation proceeds in a standard fashion.

Unfortunately, this analysis makes a wrong prediction when it comes to MECs with multiple wh-items. Since the syntactic and semantic representation of (15) is predicted to be just like in (14), the reason for its ungrammaticality remains unclear.

- (15) \*Mashe **ne-s-kem** bylo **o chem** pogovorit'.  
Masha.dat neg-with-who be.past about what talk.inf  
‘There was noone for Masha to talk with about something.’ (*intended*)

Thus, the UB analysis produces the right result for canonical MECs but fails to account for the ungrammaticality of MECs with neg-wh items in the presence of an additional wh-word. Let us now explore the next possibility.

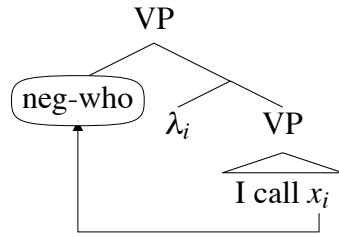
## 4.2 Generalized Quantification Analysis

An alternative analysis assumes that the neg-wh item is a standard generalized quantifier (GQ). In this case, the existential force does not come from the existential BE in the functional VP domain, but is present in the neg-wh item from the beginning of the derivation (a view taken, e.g., by Rappaport 1986, Apresjan and Iomdin 1989, Avgustinova 2003). An example of MEC with a neg-wh item such as (16) can thus be assumed to have the LF representation (17) and interpretation in (18), and (19).

- (16) Mne ne-komu zvonit'.  
me.dat neg-who.dat call.inf  
‘I have no one to call.’

*Quantificational Properties of Neg-Wh Items*

(17) *Generalized quantification and quantifier raising*



(18) Lexical semantics:  
 $[[\text{neg-who}]] = \lambda Q^{(et)} \neg \exists x \in \text{human} : Q(x)$ ;  $[[\text{call}]] = \text{call}^{(e,et)}$

(19) Derived semantics:  
 $[[\text{VP}]] = \lambda w \neg \exists x \in \text{human} : \text{call}(w)(I, x)$

This approach correctly derives the selective behavior of neg-wh items. The generalized existential quantifier cannot license an additional wh-word, as shown by the ungrammaticality of (20a), and the semantic representation (20c) is uninterpretable because the variable  $y$  (representing the additional wh-word) remains unbound.

- (20) a. \*Mashe **ne-s-kem** **o chem** pogovorit'.  
 Masha.dat neg-with-who about what talk.inf  
 'There was noone for Masha to talk with about something.' (*intended*)
- b.  $[\text{TP Mashe}_1 [\text{VP } \mathbf{ne-s-kem}_2 [\text{VP } \mathbf{o chem}_3 [\text{VP } t_1 \text{ pogovorit}' t_2 t_3 ]]]]$
- c.  $\lambda w \neg \exists x. \text{talk}(w)(\text{Masha}, x, y) \wedge \text{human}(x) \wedge \text{thing}(y)$

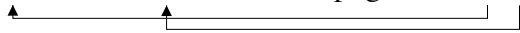
However, the GQ analysis faces both empirical and conceptual problems. Empirically, it makes two false predictions: First, the unselective existential predicate *est* 'be.pres' used in canonical MECs and the neg-wh item should be able to cooccur within a clause, as outlined in the syntactic and semantic representations (21b,c). The wh-word *o chem* 'about what' would then be licensed—a wrong prediction, as shown in (21a).

- (21) a. \*Mashe **ne-s-kem** *est*' **o chem** pogovorit'.  
 Masha.dat neg-with-who be.pres about what talk.inf  
 'There is noone for Masha to talk with about something.' (*intended*)
- b.  $[\text{TP Mashe}_1 \mathbf{ne-s-kem}_2 [\exists P \mathbf{BE} [\text{VP } \mathbf{o chem}_3 [\text{VP } t_1 \text{ pogovorit}' t_2 t_3 ]]]]$
- c.  $\lambda w \neg \exists x [x \in \text{human} \wedge \exists p. p \in \{\lambda w'. \text{talk}(w')(x, y) : y \notin \text{human}\} \wedge p(w) = 1]$

Second, generalized quantifiers of the same type are expected to be able to appear within the same clause, since they lack the uniqueness property. This is illustrated in (22) for English negative existential quantifiers.

- (22) Nobody bought nothing.  
 $\lambda w \neg \exists x \in \text{human} [\neg \exists y \notin \text{human}. \text{bought}(w)(x, y)]$

Similarly, the GQ analysis predicts multiple neg-wh items to be allowed within a clause, as exemplified by the syntactic and semantic representations (23b,c). Again, this prediction is false, as demonstrated by the ungrammaticality of (23a).

- (23) a. \*Mashe **ne-s-kem** **ne-o-chem** pogovorit'.  
 Masha.dat neg-with-who neg-about-what talk.inf  
 'There is no one with whom Masha could speak about nothing.' (*intended*)
- b. [TP Mashe<sub>1</sub> [VP **ne-s-kem**<sub>2</sub> **ne-o-chem**<sub>3</sub> [VP t<sub>1</sub> pogovorit' t<sub>2</sub> t<sub>3</sub> ]]]
- 
- c.  $\lambda w \neg \exists x \in \text{human} [\neg \exists y \notin \text{human} . \text{talk}(w)(x, y)]$

Finally, the GQ analysis is conceptually problematic, as it applies only to MECs with neg-wh items and thus fails to capture the connection between canonical negated MECs and MECs with neg-wh items. We view this as highly undesirable because these two types of MECs not only have the same truth conditions, they also have the same distributional restrictions (e.g. no indicative (24), no non-verbal predicates (25), no embedding under modals (26)) and similar lexical restrictions (27). Applying two unrelated analyses, i.e. UB and GQ, to structures with such a high degree of similarity is not an attractive option.

- (24) a. \*Kole **ne** bylo **gde** rabotaetsja.  
 Kolja.dat neg be.past where work.pres.refl  
 'There was no place where Kolja felt like working.'
- b. \*Kole bylo **ne-gde** rabotaetsja.  
 Kolja.dat be.past neg-where work.pres.refl  
 'There was no place where Kolja felt like working.'
- (25) a. \*Mashe **ne** bylo **s kem** xorosho.  
 Masha.dat neg be.past with who good  
 'There was no one for Masha to feel good with.' (*intended*)
- b. \*Mashe bylo **ne-s-kem** xorosho.  
 Masha.dat be.past neg-with-who good  
 'There was no one for Masha to feel good with.' (*intended*)
- (26) \*Mashe **ne** nado **s kem** pogovorit'.  
 Masha.dat neg need with who talk.inf  
 'Masha doesn't need to talk to anybody.' (*intended*)
- a. \*Mashe nado **ne-s-kem** pogovorit'.  
 Masha.dat need neg-with-who talk.inf  
 'Masha doesn't need to talk to anybody.' (*intended*)
- (27) a. Kole **ne** bylo ? **zachem** /\* **pochemu** uxodit'.  
 Kolja.dat neg be.past what.for / why leave.inf  
 'There was no reason for Kolja to leave.'
- b. Kole **ne-zachem** /\* **ne-pochemu** bylo uxodit'.  
 Kolja.dat neg-what.for / neg-why be.past leave.inf  
 'There was no reason for Kolja to leave.'

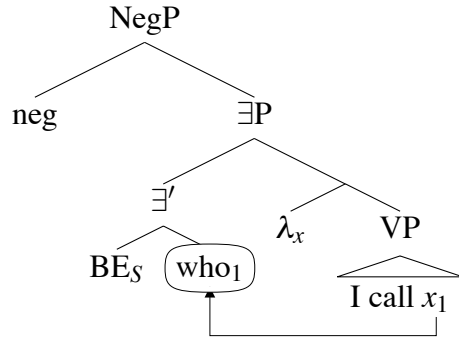


In summary, the GQ analysis correctly captures the selectivity of the neg-wh items, but wrongly predicts their non-uniqueness (which means it overgenerates as well). Besides, it fails to capture the similarity between the two types of MECs in Russian.

### 4.3 Sportiche-Style Quantification Analysis

To account for the behavior of neg-wh items, we need to analyze them as quantifiers that are both selective and unique. Sportiche-style quantifiers (SQ) described in §2 are exactly of this type. We propose that neg-wh items are instantiations of SQ. The quantificational element ( $BE_S$ ) is generated in the functional VP domain, as in the UB account, but its semantic type is a quantificational determiner, as in the GQ account. Syntactic and semantic representations of example (16) under the SQ analysis are given in (28), (29), and (30).<sup>5</sup>

(28) *Sportiche-style quantification and restrictor raising*



(29) Lexical semantics:

$$\llbracket BE_S \rrbracket = \lambda P^{(et)} \lambda Q^{(et)} \exists x [P(x) \wedge Q(x)]; \llbracket who \rrbracket = \{x^e : x \in \text{human}\}; \llbracket call \rrbracket = call^{(e,et)}; \\ \llbracket neg \rrbracket = \lambda p^{(st)}. \neg p$$

(30) Derived semantics:

$$\llbracket NegP \rrbracket = \lambda w \neg \exists x. call(w)(I, x) \wedge human(x)$$

Under this analysis the quantificational determiner and its restrictor are generated separately and combine in the course of the syntactic derivation by the process of restrictor raising, in direct parallel to quantifier raising. Once the restrictor raises, it incorporates into the phonologically null head  $BE_S$ , essentially forming a generalized quantifier which is characterized by selectivity and uniqueness (see §2).

### 4.4 Capturing the Problematic Cases

Below we briefly demonstrate how the SQ analysis accounts for those cases of MECs with neg-wh items that remain unexplained under the UB and GQ analyses.

<sup>5</sup>Clearly, this analysis requires a counter-cyclic movement. We follow Wiland (2009), who proposes that precisely this type of movement is needed in order to capture the behavior of Slavic prefixes, including the negative marker.

*No additional wh-words.* The reason for the ungrammaticality of examples like (31a) is the same as under the GQ analysis. The restrictor raising is responsible for the selective character of the existential quantification; the same result is produced by the quantifier raising on the GQ analysis. Due to the selective nature of the SQ, the variable  $y$  representing the additional *wh*-word *o chem* ‘about what’ remains unbound.

- (31) a. \*Mashe **ne-s-kem o chem** pogovorit’.  
 Masha.dat neg-with-who about what talk.inf  
 ‘There was noone for Masha to talk with about something.’ (*intended*)  
 b. [TP Mashe<sub>1</sub> [NegP **ne-** [∃P **BE<sub>S</sub> s-kem<sub>2</sub>**] VP o chem<sub>3</sub> [VP t<sub>1</sub> pogovorit’ t<sub>2</sub> t<sub>3</sub> ]]]]  
 c.  $\lambda w \neg \exists x. \text{talk}(w)(\text{Masha}, x, y) \wedge \text{human}(x) \wedge \text{thing}(y)$

*No co-occurrence of neg-wh items with existential ‘be’.* The functional existential projection in the extended VP domain can be headed either by the unselective BE or by the Sportiche-style existential determiner BE<sub>S</sub>, but never by both. The complementary distribution follows from the principle of endocentricity and the uniqueness property which characterizes both UB and Sportiche-style quantification. This effect is clearly seen with the present tense form *est’*, which is obligatorily existential in Russian, hence the ungrammaticality of (32a).<sup>6</sup>

- (32) a. \*Mashe **ne-s-kem est’ (o chem)** pogovorit’.  
 Masha.dat neg-with-who be.pres (about what) talk.inf  
 ‘There is noone for Masha to talk with about something.’ (*intended*)  
 b. [TP Mashe<sub>1</sub> [NegP **ne-** [∃P **\*BE BE<sub>S</sub> s-kem<sub>2</sub>**] VP (o chem<sub>3</sub>) [VP t<sub>1</sub> pogovorit’ t<sub>2</sub> (t<sub>3</sub>) ]]]]  
 ↑

*No multiple neg-wh items.* This restriction has the same explanation as the obligatory non-cooccurrence of BE (in the present) and BE<sub>S</sub>. In order to accommodate multiple *neg-wh* items within one clause one would have to reiterate a sequence of functional projections: NegP and ∃P, which is prohibited by uniqueness. Thus, two BE<sub>S</sub> heads in (33) are as impossible within a clause as are BE and BE<sub>S</sub> in (32).

- (33) a. \*Mashe **ne-s-kem ne-o-chem** pogovorit’.  
 Masha.dat neg-with-who neg-about-what talk.inf  
 ‘There is noone with whom Masha could speak about nothing.’ (*intended*)  
 b. \*[TP Mashe<sub>1</sub> [NegP **ne-** [∃P **BE<sub>S</sub> s-kem<sub>2</sub>**] [NegP **ne-** [∃P **BE<sub>S</sub> o-chem<sub>3</sub>**] [VP t<sub>1</sub> pogovorit’ t<sub>2</sub> t<sub>3</sub> ]]]]]]  
 ↑ ↑

In summary, the SQ analysis accounts for cases of MECs with *neg-wh* items. In the next section we put together the two types of Russian MECs and discuss the similarities and distinctions between them.

<sup>6</sup>Past and future forms of ‘be’ are acceptable, as witnessed, e.g., by (1). See §4.5 for discussion.

#### 4.5 Completing the Picture of Russian MECs

All types of Russian MECs are unified under a common syntax, whereby the quantificational element is introduced in the functional domain of the VP, which is accompanied by the property of uniqueness. The existential syntactic position can be occupied by one of two semantically different quantifiers: the unselective BE and the selective BE<sub>S</sub>. Is there more evidence that these quantifiers are indeed different? We propose that they differ not only semantically but also morphologically: while the exponent of BE is the impersonal existential predicate ‘be’, BE<sub>S</sub> is always phonologically null. The fact that the future and past form of ‘be’, namely *budet* and *bylo*, can appear even in MECs with neg-wh words is caused by the ambiguity of these forms: they can either spell-out a tense-valued existential projection or the Tense head itself (in the absence of any finite verb-form). Consider the following two examples, representing the canonical negative MECs (34) and the neg-wh MECs (35). In the former, the Tense values the tense features of BE (via agree), which gets spelled-out as *bylo*. In the latter, there is no finite verbal element to absorb the tense value and, consequently, the Tense itself realizes its features. The spell-out is identical: *bylo*.<sup>7</sup> The negative marker *ne* gets spelled out as a prefix on the closest head in its c-command domain: BE in (34) and BE<sub>S</sub> in (35). Because BE<sub>S</sub> is null, the closest phonologically realized element is necessarily a wh-word. This configuration is directly responsible for the creation of the neg-wh item.<sup>8</sup>

- (34) a. **Ne** bylo **gde** spat’.  
 neg be.past where sleep.inf  
 ‘There was no place to sleep.’  
 b. [TP T[+past] ↔ ∅ [NegP Neg ↔ ne [∃P BE[+past] ↔ *bylo* [VP where<sub>1</sub> ↔ *gde* [VP sleep ↔ *spat’* t<sub>1</sub>]]]]]
- (35) a. **Bylo ne-gde** spat’.  
 be.past neg-where sleep.inf  
 ‘There was no place to sleep.’  
 b. [TP T[+past] ↔ *bylo* [NegP Neg ↔ ne [∃P [∃’ BE<sub>S</sub> ↔ ∅ where<sub>1</sub> ↔ *gde*] [VP sleep ↔ *spat’* t<sub>1</sub>]]]]]

If we list all possible combinations of the values of the three parameters discussed so far, i.e. type of quantifier (BE vs. BE<sub>S</sub>), polarity (affirmative vs. negative), and tense (present, past, and future), we arrive at the paradigm of Russian MECs in Table 1. The column Syntax gives the predicted sequence of heads (assuming that the Tense head is non-existent in the present tense), the column Spell-out shows the predicted morphological spell-out, and the last column gives corresponding grammatical and ungrammatical examples, with the meaning ‘There is/was/will (not) (be) a place to sleep’.

<sup>7</sup>This is a technically updated version of the original proposal in Kondrashova (1996) that applies not only to Russian MECs, but to other copula structures as well.

<sup>8</sup>There are two basic options of how Neg gets spelled-out where it does: either via some sort of procliticization (perhaps via lowering) or incorporation of BE/[BE<sub>S</sub>+wh] into Neg. See also footnote 5.

Table 1: The paradigm of Russian MECs

	∃P	NegP	TP	Syntax	Spell-out	Example
1	BE	aff	pres	BE <sup>prs</sup>	est' wh	✓ <i>Est gde spat'</i>
2	BE	aff	past	BE <sup>pst</sup>	bylo wh	✓ <i>Bylo gde spat'</i>
3	BE	aff	fut	BE <sup>fut</sup>	budet wh	✓ <i>Budet gde spat'</i>
4	BE	neg	pres	Neg BE <sup>prs</sup>	ne est'/net wh	* <i>Ne est'/net gde spat'</i>
5	BE	neg	past	Neg BE <sup>pst</sup>	ne bylo wh	✓ <i>Ne bylo gde spat'</i>
6	BE	neg	fut	Neg BE <sup>fut</sup>	ne budet wh	✓ <i>Ne budet gde spat'</i>
7	BE <sub>S</sub>	aff	pres	T <sup>prs</sup> BE <sub>S</sub>	wh	* <i>Gde spat'</i>
8	BE <sub>S</sub>	aff	past	T <sup>pst</sup> BE <sub>S</sub>	bylo wh	✓ <i>Bylo gde spat'</i>
9	BE <sub>S</sub>	aff	fut	T <sup>fut</sup> BE <sub>S</sub>	budet wh	✓ <i>Budet gde spat'</i>
10	BE <sub>S</sub>	neg	pres	T <sup>prs</sup> Neg BE <sub>S</sub>	ne wh	✓ <i>Negde spat'</i>
11	BE <sub>S</sub>	neg	past	T <sup>pst</sup> Neg BE <sub>S</sub>	bylo ne wh	✓ <i>Bylo negde spat'</i>
12	BE <sub>S</sub>	neg	fut	T <sup>fut</sup> Neg BE <sub>S</sub>	budet ne wh	✓ <i>Budet negde spat'</i>

Notice that out of 12 possible types of MECs, two are ungrammatical: Type 4 and Type 7. We can provide only speculative explanations of their ungrammaticality.

As for Type 7 (*Gde spat'*), it is possible that it is blocked either by the fact that there is a more specific form that expresses the same meaning, namely Type 1 (*Est' gde spat'*), or by the fact that as it stands, Type 7 yields forms identical to wh-questions. Alternatively, we can assume that it is not only Type 7 that is impossible, but also Type 8 and Type 9. This alternative, however, is hard to verify due to the syncretism of Type 8 with Type 2, and of Type 9 with Type 3. This syncretism is caused by the fact that in the future and the past, the Tense head has the same morphological exponent in the absence of any other finite verbal predicate (i.e. in the presence of BE<sub>S</sub>) as the tense-marked existential verb BE. If we take the view that Type 8 and Type 9 are actually impossible, then we have to explain why the whole affirmative paradigm is not allowed with BE<sub>S</sub>. The reason for this might be that the determiner-like, phonologically null existential quantifier BE<sub>S</sub> somehow relies on a categorial or a phonological support from the c-commanding negation.

As for Type 4 (*Ne est'/Net gde spat'*), its non-existence is problematic for all the analyses of MECs known to us.<sup>9</sup> Arguably, it requires a treatment independent of our analysis. Notice that *ne est'* 'not be:existential' gets obligatorily contracted in Russian, yielding the form *net*.

- (36) U menja { net /\* ne est' } brata.  
 at me.gen neg.be / neg be brother.gen  
 'I don't have a brother.'

If Pancheva-Izvorski (2000) and Šimík (2009) are correct in claiming that the existential verb 'be' (or 'have') in MECs incorporates a modal component (unlike in other related constructions, such as possessives), we could hypothesize that this component gets

<sup>9</sup>See also Babby (2000:6), who reports that such examples "do in fact occur in colloquial Russian."

“lost” under incorporation. The ungrammaticality of Type 4 could thus be related to the ungrammaticality of *hasn't* on its modal reading:

- (37) a. He hasn't (got) {a car / \*to go}.  
b. He doesn't have {a car / to go}.

A detailed treatment of these issues has to be left for another occasion.

## 5. Conclusion

In this paper, we provided a novel account of the “persistent problem of Russian syntax” (Rappaport 1986): modal existential wh-constructions that involve neg-wh items. The discussion is centered around a novel observation, namely that whenever a neg-wh item is present in the MEC, no additional wh-words or neg-wh items can appear. Our analysis in terms of Sportiche-style quantification captures the traditional intuition that the neg-wh item is a negative existential quantifier, while keeping the differences between neg-wh MECs and canonical MECs to the absolute minimum: a different value of the binary parameter of selectivity. Our analysis is couched in a wider syntactico-semantic typology of quantification. If correct, it proves the need of having both selective and unselective quantifiers available in the theory of quantification.

## References

- Apresjan, Jurij D., and Leonid L. Iomdin. 1989. Konstrukcija tipa *negde spat'*: Sintaksis, semantika, leksikografija. *Semiotika i informatika* 29:34–92.
- Avgustinova, Tania. 2003. Russian infinitival existential constructions from an HPSG perspective. In *Proceedings of FDSL 4 (Part II)*, ed. Peter Kosta, Joanna Błaszczak, Jens Frasek, Ljudmila Geist, and Maria Zygis, 461–482. Frankfurt am Main: Peter Lang Verlag.
- Babby, Leonard H. 2000. Infinitival existential sentences in Russian: A case of syntactic suppletion. In *Proceedings of FASL 8*, ed. Tracy Holloway King and Irina A. Sekerina, 1–21. Ann Arbor, MI: Michigan Slavic Publications.
- Barwise, Jon, and Robin Cooper. 1981. Generalized quantifiers and natural language. *Linguistics and Philosophy* 4:159–219.
- Beghelli, Filippo, and Timothy Agnus Stowell. 1997. Distributivity and negation: The syntax of each and every. In *Ways of scope taking*, ed. Anna Szabolcsi, 71–107. Dordrecht: Kluwer.
- Chvany, Catherine V. 1975. *On the syntax of BE-sentences in Russian*. Cambridge, MA: Slavica Publishers.
- Grosu, Alexander. 1994. *Three studies in locality and case*. London: Routledge.
- Grosu, Alexander. 2004. The syntax-semantics of modal existential wh constructions. In *Balkan syntax and semantics*, ed. Olga Mišeska Tomić, 405–438. Amsterdam: John Benjamins.

- Heim, Irene. 1982. The semantics of definite and indefinite noun phrases. Doctoral Dissertation, University of Massachusetts, Amherst.
- Kondrashova, Natalia. 1996. The syntax of existential quantification. Doctoral Dissertation, University of Wisconsin, Madison.
- Kratzer, Angelika, and Junko Shimoyama. 2002. Indeterminate pronouns: The view from Japanese. In *Proceedings of the Third Tokyo Conference on Psycholinguistics*, ed. Yukio Otsu, 1–25. Tokyo: Hituzi Syobo.
- Lipták, Anikó. 2003. Hungarian modal existential wh-constructions. Manuscript, University of Leiden.
- May, Robert. 1977. The grammar of quantification. Doctoral Dissertation, MIT, Cambridge, MA.
- Pancheva-Izvorski, Roumyana. 2000. Free relatives and related matters. Doctoral Dissertation, University of Pennsylvania, Philadelphia.
- Plann, Susan Joan. 1980. *Relative clauses in spanish without overt antecedents and related constructions*. Los Angeles, CA: University of California Press.
- Rappaport, Gilbert C. 1986. On a persistent problem of Russian syntax: Sentences of the type ‘mne negde spat’. *Russian Linguistics* 10:1–31.
- Rudin, Catherine. 1986. *Aspects of Bulgarian syntax: Complementizers and wh-constructions*. Columbus, OH: Slavica Publishers.
- Sportiche, Dominique. 2005. Division of labor between merge and move: Strict locality of selection and apparent reconstruction paradoxes. In *Proceedings of the Workshop Divisions of Linguistic Labor, The La Bretesche Workshop*. UCLA.
- Šimík, Radek. 2009. Hamblin pronouns in modal existential wh-constructions. In *Proceedings of FASL 17*, ed. Maria Babyonyshev, Daria Kavitskaya, and Jodi Reich, 187–202. Ann Arbor, MI: Michigan Slavic Publications.
- Wiland, Bartosz. 2009. Aspects of order preservation in Polish and English. Doctoral Dissertation, University of Poznań.

Natalia Kondrashova  
Department of Linguistics  
University of Michigan  
440 Lorch Hall, 611 Tappan St.  
Ann Arbor, MI 48109-1220

natakon@umich.edu

Radek Šimík  
Center for Language and Cognition Groningen  
University of Groningen  
Oude kijk in 't Jatstraat 26  
9712 EK Groningen  
The Netherlands

r.simik@rug.nl