Correlatives: Evidence from Russian

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1. Introduction[1]

This paper is dedicated to correlative constructions in Russian. Correlatives have been actively studied in recent 15 years (Dayal 1996, Izvorski 1996, Vries 2002, Bhatt 2003, Lipták 2005, den Dikken 2005), but Russian constructions were usually not considered, although they provide useful material for better understanding of syntax of relativisation. Russian has a very rich system of correlatives and they reveal some peculiarities (e.g. coordination of correlative clauses and stacking) that cannot be explained within the existing theories.

In a correlative the subordinate clause CorCP precedes the main clause; the subordinate clause contains relative phrase XP_{rel} and the main clause contains anaphoric phrase XP_{ana} associated with XP_{rel}. The example of simple correlative in Russian is at (1), the schema is at (2).

(1) [$_{CorCP}$Kakuju mašimu hočeš']$_i$, [$_{IP}$takuju on tebe i podarit].
[$_{CorCP}$which car want]$_i$, [$_{IP}$such he you EMPH will-grant].
'He will give you any car that you ask of him for a present'
(more lit.: 'Whatever car you ask of him, he will give you that car for a present')

(2) [$_{CorCP(subordinate\ clause)}XP_{rel\ i}\ldots$]$_i$ [$_{IP\ (main\ clause)}$ $XP_{ana\ i}\ldots$]

[1] I wish to convey my deep gratitude to David Pesetsky for introducing this topic to me and to Natalia Slioussar, Yakov Testelets and anonymous reviewer of this paper for their very helpful comments and observations. All remaining errors and omissions are my own. The Russian data on correlatives were collected in the form of questionnaires from a number of informants; I likewise thank them for their help and judgments. Some of the examples for the study were taken from the Russian National Corpus at http:\\ruscorpora.ru.

Multi-head correlatives have several XP_{rel} in CorCP that correspond to the same number of XP_{ana} in the main clause. The example of multi-head correlative in Russian (from a hero of Ivan Turgenev) is at (3).

(3) Komu kakaja premudrost' dalas', tot toj i prideržívajsja.
who$_{DAT}$ [what wisdom]$_{ACC}$ given Det$_{NOM}$ Det$_{GEN}$EMPH hold-on
'Let one hold on to whatever wisdom one has been given' or
(more lit.: 'To whomever whatever wisdom has been given, let such a one hold on to it')

There were several structural accounts of correlatives described in the literature, but they are basically of two different types. According to some of them, the subordinate clause in correlatives is generated low and moves out to the beginning of the sentence. This is the analysis used by Rajesh Bhatt for simple correlatives in Hindi (Bhatt 2003). According to other theories, correlative clauses are base-generated in the left periphery. This is the analysis suggested by Anicó Lipták for Hungarian correlatives (Lipták 2005). It is not clear yet, which analysis of these two can explain the structure of Russian correlatives.

2. Pairs of XP_{rel}–XP_{ana} that Form Correlatives in Russian

Russian has a very rich system of relative and demonstrative pronouns and pronominal adverbs that form the following pairs of XP_{rel} – XP_{ana} in correlative constructions:

XP_{rel}	**XP_{ana}**	**Example**
kto 'who'	*tot* 'that'	(4a)
čto 'what'	*to* 'that'	(4b)
*kako*j 'what' (+NP)	*takoj* 'that, such' (+NP) / *tot* 'that'	(4c)
čej 'whose' + NP	*togo* 'his, her, its' +NP / *tot* 'that'	(4d)
gde 'where'	*tam* 'there'	(4e)
kuda/otkuda 'where-to'/'where-from'	*tuda/ottuda* 'there-to'/'there-from'	(4f, 4g)
dokuda 'until-where'	*dotuda* 'until-there'	(4h)
kogda 'when'	*togda* 'then'	(4i)
kak 'how'	*tak* 'this way, this manner'	(4j)
skol'ko 'how much'	*stol'ko* 'that much'	(4k)
naskol'ko 'to what extent'	*nastol'ko* 'to that extent'	(4l)
čem 'the (more)' (comparative)	*tem* 'the (more)' (comparative)	(4m)
kakov 'what'	*takov* 'that'	(4n)[2]

[2] This is an archaic pair of pronouns that can be used only in a restricted construction without proposition *Kakov* NP, *takov* EMPH NP.

(4) a. Kto platit, tot zakazyvaet muzyku.
who pays that$_{NOM}$ orders music$_{ACC}$
'Whoever's got money will dictate the music' (more lit: '(He) who pays is the one who orders the music.')

b. Čto poprosjat, to ja i poju.
what ask that I EMPH sing
'I thing whatever anyone asks me to sing.'

c. Kakuju mašinu uvidit, tu/takuju i prosit.
[what car]$_{ACC}$ sees, that/such$_{ACC}$ EMPH asks
'He asks for every car that he sees.'

d. Čej vzgljad vstretit, tomu i raduetsja.
[whose glance]$_{ACC}$ overtakes, that$_{DAT}$ EMPH rejoice
'He is glad for every person whose glance he meets.'

e. Gde son zastanet, tam on i spit.
where sleep$_{NOM}$ overtakes there he EMPH sleeps
'He sleeps wherever sleep overtakes him.' (more lit.: 'Wherever sleep overtakes him, that is where he sleeps')

f. Kuda hočet, tuda i idet
where wants there EMPH goes
'He goes wherever he wants.'

g. Otkuda on prišel, tuda i hočet vernut'sja.
where-from he came there EMPH wants to-return.
'He wants to go back where he came from.'

h. Dokuda kartošku posadiš, dotuda i budet tvoja zemlja.
where potato will-plant, until-there EMPH will-be your land
'The area that you plant with potato will become your land.'

i. Kogda on vernetsja, togda i rasskažet.
when he returns then EMPH will-tell
'He will talk about it when he gets back.'

j. Kak slomal, tak I čini.
How broke so EMPH repair
'Repair it the same way you broke it.'

k. Skol'ko deneg on poprosil, stol'ko roditeli emu i dali.
How-much money he asked that-much parents him EMPH gave
'The amount of money for which he asked, that's what his parents gave him'

l. Naskol'ko on nadežen, nastol'ko ja emu i doverjaju.
to-what-extent he is-reliable to-that-extent I him EMPH trust.
'I trust him to the extent to which he is reliable.'

m. Čem bol'še šuma, tem lučše.
what more noise that better
'The more noise the better.'

n. Kakov vopros, takov i otvet.
what question such EMPH answer
'The answer is of a similar nature of the question.'

Occasionally some other pairs can be formed using the same or similar constituent elements.

Russian relative pronoun *kotoryj* 'which' was used in correlative construction before the middle of 18th century (similar construction occasionally can be found in colloquial modern Russian, but they sound archaic). In modern Russian *kotoryj* is used only in relatives with a full nominal head where the main clause precedes the subordinate clause. It is similar to Hungarian *amely* (Lipták 2005: 5-6).

(5) a. Éto mašina, kotoraya mne nravitsja.
this-is car_{NOM} that I_{DAT} like
'Here is the car that I like'

Russian also differs from other languages in some other ways. In the next section, we will apply a number of tests to Russian correlatives to find out that they have some typologically unique properties.

3. Headed Relative Clauses vs. Correlatives

Following Srivastav (1991), Rajesh Bhatt (2003) describes structural differences between headed relative clauses and correlatives. Russian reveals some of these properties, but not all of them.

1) Unlike headed relatives, the 'head' can appear in either S_{rel} or S_{main}, or both. The 'head' is the NP that is merged with a demonstrative to form an anaphoric group that is relativized by the correlative clause. This is true for those Russian demonstratives and relative pronouns that can merge with NPs. For example, all three sentences (6a-c) (meaning 'He bought the car that he wanted') are possible in Russian. In the headed relative (6d) no 'head' is possible within the relative clause.

(6) a. [$_{CorrCP}$ Kakuju mašinu hotel], takuju i kupil. ('Head' in S_{rel})
[$_{CorrCP}$ which car$_{ACC}$ wanted] such EMPH bought

b. [$_{CorrCP}$ Kakuju hotel], takuju mašinu i kupil. ('Head' in S_{main})
[$_{CorrCP}$which wanted] Dem car-DO EMPH bought

c. [$_{CorrCP}$ Kakuju mašinu hotel], takuju mašinu i kupil. ('Heads' in both S_{rel} and S_{main})
[$_{CorrCP}$which car-DO wanted] Dem car-DO EMPH bought

d. Kupil tu mašinu, kakuju (*mašinu/*Toyotu) hotel. (headed rel)
bought that car which (*car/*Toyota) wanted

2) The demonstrative requirement. The demonstrative is always required with NP_{ana} in correlatives, while it is optional in headed relatives.

(7) a. Kakuju emu dajut, takuju pišču on i est.
what him given that food he EMPH eats
'He eats whatever food is given to him'.
(correlative clause, Dem + NP_{ana})

b. *Kakuju emu dajut, pišču on i est.
what him given food he EMPH eats
(correlative clause, Bare NP_{ana})

c. On est (tu) pišču, kotoruju emu dajut.
he eats (that) food that him given
'He eats (that) food that is given to him.'
(headed relative clause, with or without Dem)

Actually this structural difference between headed relative clauses and correlatives in Russian is not that obvious. The demonstrative is optional only for headed relative clauses with *kotoryj* 'which' that is not used in correlative constructions in modern Russian (see (5)). As for headed relative clauses with *kakoj* 'which', they usually require demonstrative, without this demonstrative the sentence sounds ungrammatical:

(8) On est tu pišču, kakuju emu dajut.
he eats that food that him given
'He eats that food that is given to him.'

3) Multi-Head Relative Clauses are only possible with correlatives.

(9) Kakoj student kakuju knigu vyberet, tot tu i čitaet.
which student which book selects, that that EMPH reads.
'Every student reads the book that he selects.'

4) Bhatt notes that while externally headed relative clauses allow for stacking, correlatives do not. Lipták also writes: "To my knowledge, all languages with correlatives restrict the number of possible correlatives to one per clause" (Lipták 2005). But Russian allows stacking for correlatives. Here is one of the several examples of correlative stacking from the Russian National Corpus. The second example shows two correlative clauses of different types:

(10) a. Kakim instrumentom rabotat' spodručnee, kakim polučaetsja lučše, takim i stoit krasit'.
which tool to-work more-comfortable, which works better with-that EMPH worth to-paint
'It is better to paint with the tool that is more comfortable and more handy.'

b. Kak rebenok vospityvaetsja, kakie skazki čitaet, takim i vyrastaet.
how child is-raised, what tales reads such EMPH grows
'A child grows in a way depending on how he is raised and what tales he reads.'

The stacked correlative clauses in such examples coordinate. You can insert *i* 'and' between correlative parts. We will study this coordination below in section 5.

So, in this section we considered the tests used to distinguish between correlatives and headed relatives in different languages. These tests were designed to make sure that the set of correlatives is correctly identified. Interestingly, some of these diagnostics do not work for Russian. First, in the languages described so far, only headed relative clauses can be stacked. Russian also allows for stacking correlatives. Second, so-called demonstrative requirement is not readily applicable to Russian. Bhatt notes that correlatives require a demonstrative pronoun in the main clause, while headed relatives do not. In Russian, demonstrative pronoun is also required in many types of headed relatives. Nevertheless, the set of correlatives in Russian can be identified on the basis of other diagnostics, so we can be sure that in general, we deal with the same phenomenon as in other languages and crosslinguistic comparisons are appropriate.

4. Possible Sequences of Parts

Let us call three main parts of a correlative construction Sub (for correlative clause), Dem (for XP_{ana}) and Main (for the rest of the main clause):

(11) [Kto pridet pervym]$_{Sub}$ [togo]$_{Dem}$ [organizatory pustyat besplatno]$_{Main}$.
who will-come first him organizers will-let for-free
'Those who come early, the organizers will let in for free.'

Six different orders of these three parts are theoretically possible. Which of these six orders exist for the correlatives? First of all, *Sub-Main-Dem* and *Main-Sub-Dem* orders are not possible, these are the sentences with XP_{ana} at the end[3]. The rest four orders (*Sub-Dem-Main*, *Dem-Sub-Main*, *Dem-Main-Sub* and *Main-Dem-Sub*) are possible with the exception of some special cases (like the sentences without predicates) and without taking into consideration some slight changes in word order and the insertion of emphatic particles.

Only two types of correlatives are less flexible. These are the sentences with *kakoj* (they need more research) and comparative correlatives that do not allow *Dem-Main-Sub* order:

(12) a. *Tem lučše rezul'tat čem dol'še rabotaeš
that better result what longer work
'The longer you work, the better the result is'. (*Dem-Main-Sub*)

b. Rezul'tat tem lučše, čem dol'še rabotaeš
result that better what longer work
'The result is the better the longer you work'. (*Main- Dem-Sub*)

5. Coordination

It is easy to see that *Dem+Sub* form a constituent in Russian because they can be coordinated both at the beginning (13a) and at the end of the sentence (13b), while coordination of *Sub+Dem* is not possible anywhere (13c).

[3] Anaphoric pronouns do not typically occur sentence-finally in Russian, whereas XP-s with an anaphoric pronouns do in some special contexts: *Ja podar'u tebe takuju knugu* ('I will-give you such book').

(13) a. Organizatory pustyat besplatno [togo, kto prišel pervym] i [togo, kto prines cvety].
organizers will-let for-free [those who came first] and [those who brought flowers]
'Those who come early, and those who bring the flowers, the organizers will let in for free.'

b. [Togo, kto prišel pervym] i [togo, kto prines cvety], organizatory pustyat besplatno.
[those who came first] and [those who brought flowers] organizers will-let for-free
'The organizers will let in for free those who come early, and those who bring the flowers.'

c. *[Kto prišel pervym, togo,] i [kto prines cvety, togo] organizatory pustyat besplatno.
[who came first those] and [who brought flowers those] organizers will-let for-free
'The organizers will let in for free those who come early, and those who bring the flowers.'

Coordination is possible even for correlative clauses of different types, although in this case the content of these clauses is usually identical[4]:

[4] The anonymous reviewer of this article made some important observations about the coordination in comparative constructions. With gratitude I am presenting his important examples and remarks here in this footnote:

Fronting of coordinated "XP_{ana} + CorCP" does not work for all kinds of correlative clause sentences, for instance, cf. comparative correlative clauses:

(i) *On čuvstvuet seb'a [[tem lučše, čem ran' še vstaet], i [tem molože, čem bol'še prepodaet]]* 'He feels the better, the earlier he gets up, and the younger, the more he teaches'.

(ii) * *[[Tem lučše, čem ran'še vstaet], i [tem molože, čem bol'še prepodaet]], on i čuvstvuet seb'a* 'The better, the earlier he gets up, and the younger, the more he teaches, he feels'.

To make (b) grammatical, an additional "secondary" demonstrative *tak* is needed in the main clause:

(iii) *[[Tem lučše, čem ran'še vstaet], i [tem molože, čem bol'še prepodaet]], TAK on Ičuvstvuet seb'a* 'The better, the earlier he gets up, and the younger, the more he teaches, THAT WAY he feels'.

Thus, (i-ii) might show that correlative comparative sentences (or perhaps also some other types) must be considered separately. In (iii), the coordinate constituent containing XP_{ana} *[[Tem lučše,čem ran' še vstaet], i [tem molože,čem bol'še prepodaet]]* is fronted from the

(14) a. [Togda, kogda nuzhno] i [tam, gde nuzho] ego ne najdeš'.
[then when needed] and [there where needed] him not found
'You cannot find him when you need him and where you need him.'

b. Ego ne najdeš' [togda, kogda nuzhno] i [tam, gde nuzho].
him not found [then when needed] and [there where needed]
'You cannot find him when you need him and where you need him.'

The fact that [Sub+Dem] can form a constituent, but [Dem+Sub] in (13c) cannot, finds its explanation when we consider movements described in section 8. *Dem-Sub-Main* (13c) is formed when the constituent *Dem-Sub* is moved to the left periphery of the sentence, while *Sub-Dem-Main* is caused by two successive movements (see section 8 below).

Besides coordination of two *Sub* parts followed by one *Dem* is possible like in (10a-b). It can be formed as *Sub-Dem-Main* construction if both coordinated *Subs* are moved together as one coordinated group[5].

(15) Stoit krasit' takim instrumentom, kakim
rabotat' spodručnee, kakim polučaetsja lučše.
worth to-paint with-that tool which
to-work more-comfortable, which works better
'It is better to paint with the tool that is more comfortable and more handy.'

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matrix clause, but there is another demonstrative *tak* fronted inside the main clause from the same manner adverbial modifier position. (iii) derives from (iv)

(iv) *Ončuvstvuet seb'a TAK: [[tem lučše, čem ran'še vstaet], i [tem molože, čem bol'še prepodaet]]* 'He feels THAT WAY: the better, the earlier he gets up, and the younger, the more he teaches'.

Probably, comparative correlative clause sentences in Russian must be considered as having the same structure as sentences with layered correlative clauses, or some other account for these cases has to be added. (This conclusion of the reviewer confirms my observations that comparative correlatives must be studied separately in Russian.)

[5] Coordination of correlative clauses at the left periphery reminds the phenomenon observed in Russian multiple Wh-questions, where Wh-phrases of different syntactic functions and categories can coordinate in SpecCP, like in (v) (Kazenin 2002). If these constructions are similar, than the subordinate clause in correlatives is generated low and moves out to the beginning of the sentence:

(v) Kto i kogo udaril?
who and whom hit
'Who hit whom?'

6. Reconstruction and Binding Theory

We used reconstruction as an argument against low-adjunction analysis in Russian (Mitrenina 2008):

(16) [Kakaja jahta$_k$ Miše$_i$ ponravitsja]$_k$, tu$_k$ on$_i$ i pokupaet t$_k$.
which yacht Miša$_i$ likes Dem he$_i$ Prt buys
'Miša$_i$ buys whichever yacht he$_i$ likes.'

If CorCP was moved from IP in (16), then this sentence should be ungrammatical, because *on* 'he' c-commands the "trace" of CorCP t$_k$ that includes its coindexed R-expression Mishe.

But a more detailed study shows that Russian reconstruction data are ambiguous. Bhatt also notices that the argument for reconstruction based on the existence of Cond. B and Cond. C can be defused (Bhatt 2005).

Variable binding is used as another argument for low-adjunction analysis in correlatives. But variable binding in Russian have not been studied well enough so far, so it gives ambiguous data, so that both (17a) and (17b) are grammatical:

(17) a. Kakuju tarelku pered nim postavjat, iz takoj každyj i est.
what plate before him put from such each EMPH eats
'Everyone eats from the plate that is put in front of him.'

b. Kakuju tarelku pered každym postavjat, iz takoj on i est.
what plate before each put from such he EMPH eats
'Everyone eats from the plate that is put in front of him.'

7. Island effects

Bhatt used island effects as an argument for low-adjunction analysis in Hindi (Bhatt 2003). It works in Hindi where XP$_{ana}$ can stay in situ in the middle of the main clause so that the island can be determined for CorrCP that moves to the left. As for Russian, XP$_{ana}$ always moves to the left periphery (Izvorski 1996) that makes it impossible to identify locality effects for CorCP if/when it moves from the middle of the main clause. It makes no difference for an island if XP$_{ana}$ and CorCP form a constituent within the main clause and both have to move, or if CorCP is base generated at the left periphery and only XP$_{ana}$ has to move.

But still we can observe some island effects as I showed in (Mitrenina 2008). Most of the informants (native speakers of Russian living in Russian-speaking environment) marked the sentences (18) as ungrammatical:

(18) a. *Kto vidit skvoz' steny, est' bolnicy, gde teh
lečat besplatno.
who sees through walls, there-are hospitals, where those
are-treated for-free
'As for those who can see through walls, there are hospitals where such people are treated for free.'

b. *Kogo načal'nik vybral, sotrudniki pustili slux,
čto tot polučil premiju.
who boss selected colleagues spread rumor
than he received premium
'The colleagues has spread the rumor that whoever the boss has chosen has received the premium.'

So, the relationship between the correlative clause and the demonstrative phrase is subject to Complex NP island and if the main clause is embedded in a Complex NP, CorCP cannot be fronted

8. IS-related movement

We believe that certain generalizations about the syntactic structure of correlatives can be explained by the Information Structure (IS) considerations. Most generative IS theories (Rizzi 1997, a.m.o.) assume that an IS feature, such as Top or Foc, can be put on an element, and then it moves to a dedicated position — e.g. to the [Spec; TopP]. However, there are also configurational approaches where IS interpretations are associated with particular syntactic and, sometimes, prosodic configurations. Thus, Reinhart and Neeleman claim that any constituent containing the main stress of the sentence (which usually falls on the most embedded element in English and Russian) can be interpreted as focused (Reinhart 1995, 2006; Neeleman & Reinhart 1998).

In our explanation, we will rely on the configurational IS theory developed by Slioussar (2007) mainly on the material of Russian language. Slioussar argues that IS-related notions encoded in the grammar are relational (such as more or less accessible: A is more accessible than B) rather than categorical (such as given or new: A is given, B is new). Her model is based on relative accessibility and relative salience (subsuming contrast and emphasis). For the discussion why these notions are necessary and advantageous, we refer the reader to Slioussar's own work. For our purposes, we will need only the interface rule that she uses in her model (Slioussar 2007: 31):

(19) If X is (re)merged above Y, X is at least as accessible and at most as salient as Y. If X is remerged above Y as a result of IS-related movement, X is more accessible and less salient than Y.

In other words, highly accessible information tends to be fronted (topics can be taken as an example), while new information tends to remain sentence-final. Inside new information, highly salient elements tend to be the most embedded, as in (20) (Slioussar 2007: 88).

(20) Redkij slučaj v gubernii: čeloveka ukusila bešenaja lisa.
[rare case]$_{NOM}$ in province man$_{ACC}$ bit [rabid fox]$_{NOM}$
'A rare case in the province: a man was bit by a rabid fox.'

One of the advantages of this approach compared to the ones relying on topics, foci, giveness and newness is that in (20), the whole sentence is new and in focus, and still IS-related movement takes place. This is why we will rely on it in our approach to correlatives. However, our explanation can be recast in terms of other configurational IS models, although less advantageously.

So, the different orders of *Sub-Dem-Main* parts can be a result of different IS-related movements: the correlative part XP_{ana} can move to the left periphery of the sentence so that to make the most salient elements the most embedded. The rest of the main clause in a correlative is often preceded by *i* emphatic particle that marks the most salient part of the sentence (Šimčuk and Ščur 1999:69)[6].

This approach makes clear the distribution of *Main-Sub-Dem* and *Sub-Main-Dem* orders in Russian. The latter can be constructed but sounds very unnatural (21a), but the former is impossible (21b). If *Dem* is in the most embedded position, then it should be in the narrow focus that is quite unnatural, because the pronouns are used for the most accessible elements, so it is to be excluded from focus:

(21) a ?Kto pridet pervym, direktor pustit besplatno (imenno) TOGO.
who came first director will-let for-free (exactly) HIM
'This is the one who come early, that the director will let in for free.'
b. *Direktor pustit besplatno kto pridet pervym, togo.
director will-let for-free who came first him/HIM.

[6] This emphatic particle *i* is not obligatory and can be omitted in most sentences, although is makes the sentence sound less natural: *Kogda on vernetsja, togda rasskažet* 'When he comes back, he will tell (smth)', cf. (4i). Besides, this emphatic particle *i* can precede not only the verbs but also other elements.

The structure (21b) is impossible because no IS-related movement can be found for *Main-Sub-Dem* from *Main-Dem-Sub*. The structure (21a) *Sub-Main-Dem* was not found in corpora but from the theoretical point of view it is possible as a result of a very unnatural split-scrambling that moves CorrCP to the left periphery. The more natural order for this set of information accessibility is the natural order *Main-Dem-Sub*.

The reminded three orders can be formed with the following IS-related movements:

Dem-Sub-Main is formed when the whole group *Dem-Sub* is moved to the left periphery of the sentence, so that the rest of the main clause can be the most embedded as the most salient part of the sentence. This movement allows coordination similar to coordination of Wh-phrases in Russian multiple Wh-questions described by Kazenin (2002).

Dem-Main-Sub is a result of split-scrambling that moves *Dem* to the left periphery. This order and the previous one are not correlatives, because some part of the main clause (*Dem*) precedes the correlative clause.

Sub-Dem-Main is the order that we see in the correlatives. It can be caused by two successive IS-related movements similar to the derivation of 'O Adv V S' sentences in Russian described by Slioussar (2007: 153). But a more detailed analysis requires more data.

This approach is compatible with all structural differences between headed relative clauses and simple correlatives described in section 3. The only exception is the correlative with *kakoj* 'what' like in (4c). A headed relative does not allow NP within the subordinate clause, while a correlative allows NPs either in the subordinate clause or in the main clause or in both of the clauses. This point also requires more investigation, but it can be caused by some sore of ellipsis in correlatives, while in the headed relative clause the second NP must be phonologically deleted under identity with the external head.

9. Conclusions

In this paper, we examined Russian correlatives to see whether their properties are typologically common or exceptional and whether they can be readily accounted for by existing models (references) or call for a new analysis.

We examined how different approaches to the syntax of correlatives fare on Russian data. In Bhatt's theory, the subordinate clause in simple correlatives in Hindi is generated low and moves out to the beginning of the sentence (Bhatt 2003). According to Lipták (2005, 2008), subordinate clauses in Hungarian are base-generated in the left periphery. Russian data are ambiguous, and their ultimate analysis is greatly complicated by

the fact that other areas of Russian syntax (binding theory etc.) have not been studied well enough so far. On one hand, the demonstrative and the subordinate clause appear to form a constituent in Russian correlatives: two pairs of demonstratives and subordinate clauses can be coordinated, while in other cases coordination is impossible. This is an argument for movement; island effects provide another argument for movement. On the other hand, evidence from binding and coreference may point to the base-generation analysis, although it gives ambiguous data in Russian.

We suggested an explanation for certain generalizations about the syntactic structure of correlatives using Slioussar's (2007) distinction between movement for head-features-agreement purposes and IS-movement related to topic-focus structure and Information Structure (IS) (and not related to head-features agreement). We relied on Slioussar's (2007) model based on relational IS notions: relative accessibility and salience. But our analysis can also be cast in terms of traditional IS notions: giveness and focus, although less advantageously. Our approach does not crucially depend on the movement or base-generation analysis of correlatives.

The first generalization is that the demonstrative, which is doubtlessly generated inside the main clause, cannot remain sentence-final and moves out to the left periphery. Many IS theories show that highly accessible (or given, or D-linked) elements tend to move out of the most embedded position, while new information remains there. The neutral main stress falls on the most embedded element in Russian and many other languages, and this is the default position of the focused constituent. Demonstrative pronouns, as most other pronouns, by definition encode highly accessible information and are usually excluded from focus (being typical topics), so their fronting can be explained by IS reasons.

Now let us look at subordinate clauses. Whether they are moved out to the beginning of the sentence or are base-generated there, it is hard to explain their position by their own IS properties: they usually contain new information. However, their movement or high site of attachment can be explained by the properties of the main clause. The information in the main clause, excluding the demonstrative and other highly accessible (or topical) elements, is preceded by the particle *i*. This particle marks highly salient information in Russian, which should remain sentence-final according to Slioussar's (2007) theory. If we want to recast this explanation in terms of other IS models, we would say that the constituent preceded by *i* is in narrow focus, and foci tend to remain sentence-final in Russian while other constituents move out to higher positions.

References

Bhatt R. 2003. Locality in Correlatives. In: *Natural Language and Linguistic Theory*, Volume 21, Number 3, August, 485–541.

Bhatt R. 2005. Three theories of Relative Clauses. Handout for LOT Summer School, June 13, 2005.

Dayal, V. (1996). Quantification in correlatives // E.W. Bach, E. Jelinek, A. Kratzer, B.H. Partee (eds.), *Quantification in natural language, Student version*, Series: Studies in linguistics and philosophy, Vol. 54:179-206. New York, LLC: Springer Verlag.

Dikken M. den. 2005. Comparative Correlatives Comparatively. In: *Linguistic Inquiry*. Volume 36:497–532.

Izvorski R. 1996. The syntax and semantics of correlative proforms. In: K. Kusumoto (ed.), *Proceedings of NELS* 26. Amherst, GLSA Publications.

Kazenin, K. 2002. On coordinations of wh-phrases in Russian. Ms., Tübingen University.

Lipták A. 2005. Correlative Topicalization. Ms., uLCL, Leiden University.

Lipták A. 2008. On the correlative nature of Hungarian left peripheral relatives. In B. Shaer et al (eds), *Dislocation: Syntactic, semantic and discourse perspectives. Germanic Languages series*. John Benjamins.

Mitrenina O. 2008. Sintaksis korreljativnyh konstrukcij russkogo jazyka s pozicii generativnoj grammatiki. In: *Kompjuternaja lingvistika I intellektual'nye tehnologii*. Volume 7 (14):356–360

Neeleman, A., & Reinhart, T. (1998). Scrambling and the PF interface. In M. Butt & W. Geuder (Eds.), *The projection of arguments: Lexical and compositional factors*, 309–353. Stanford, CA: CSLI Publications.

Reinhart, T. 1995. Interface strategies. In: *Uil OTS Working Papers in Linguistics*. Utrecht: Utrecht University.

Reinhart, T. 2006. *Interface strategies: Reference-set computation*. Cambridge, MA: MIT Press.

Rizzi, L. 1997. The fine structure of the left periphery. In L. Haegeman (ed.), *Elements of grammar: Handbook in generative syntax*, 281-337. Dordrecht: Kluwer.

Šimčuk È. and M. Ščur 1999. *Slovar' russkih častic*. Peter Lang GmbH. Frankfurt am Main.

Slioussar, N. 2007. *Grammar and Information Structure*. Doctoral dissertation. Utrecht: LOT Publications.

Srivastav, V. 1991. The syntax and semantics of correlatives // *NLLT* 9:637-686.

Vries M de. 2002.The Syntax of Relativization. PhD thesis, University of Amsterdam.