

On Reverse Hybrid Wh-Coordination in Russian

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1. Introduction

The paper is concerned with Russian Reverse Hybrid wh-constructions (rHWh), as in (1), which contrast with (2). In both cases a wh-question is conjoined with a Y/N-interrogative. The point of divergence pertains to the order of elements: in (1) the wh-word appears before the Q-marker (*li*), whereas (2) evinces a permutation of this order.

- (1) Kto i skoro li pridet? (rHWh: Wh & X *li*)
who and soon Q will.come
'Who will come and will somebody come soon?'
- (2) Skoro li i kto pridet? (HWh: X *li* & wh)
soon Q and who will.come
'Will somebody come soon and who will come soon?'

A number of restrictions obtain in constructions of type (2). Zanon (2014) shows that in HWh contexts only adjuncts, such as *skoro* 'soon' in (2), and certain quantified arguments, as in (3), can appear before *li*. Non-quantified arguments and verbs, though felicitous in root and embedded Y/N-questions as in (4a), are prohibited in coordinated contexts as in (4b).

- (3) Vsë li i kogda Ivan prodal Maše?
all Q and when Ivan sold to.Masha
'Did Ivan sell everything to Masha and when?'
- (4) a. (Ja ne znaju) cvety li Ivan Lene darit.
I neg know flowers Q Ivan to.Lena gives
'(I do not know whether) Ivan gives flowers to Lena.'
- b. *(Ja ne znaju) cvety li i komu daril Ivan.
I neg know flowers Q and to.whom gave Ivan
'(I do not know whether) Ivan gives flowers to Lena.'

Assuming Munn's (1993) adjunction structure in (5a), Zanon (2014) treats (2) and (3) as instances of CP-coordination with TP-ellipsis in the first conjunct. The impossibility of non-quantified arguments in pre-*li* positions follows from the preservation of argument structure. (4b) is hence ruled out due to a missing obligatory element in the second conjunct, as in (6). The adjuncts can freely pre-

- (7) ^{OK}Wh-phrase D-LINKED / NON-D-LINKED / ADJUNCT & [ADJUNCT *li...*]?
 (8) a. Kogo i [davno li agent zdes' doprašival]?
 who and long.time.ago Q agent here interrogated
 'Whom did the agent interrogate here and how long ago did he interrogate that person?'
 b. Kakogo špiona i [davno li agent zdes' doprašival]?
 which spy and long.time.ago Q agent here interrogated
 c. Gde i [davno li agent doprašival špiona]?
 where and long.time.ago Q agent interrogated spy

However, in (9) with a quantified expression before *li*, the point of divergence between *who*- and *which*-phrases emerges, whereby (9a)/(10a) is perceived to be much worse than (9b)/(10b) examples by my informants.²

- (9) a. *Wh-phrase_{D-LINKED} & [QUANTIFIER *li...*]?
 b. ?Wh-phrase_{NON-D-LINKED} & [QUANTIFIER *li...*]?
 (10) a. *Kogo i vse li (očevicy) zdes' videli?
 whom and all Q (eyewitnesses) here saw
 b. ?Kakogo prestupnika i vse li (očevicy) zdes' videli?
 which criminal and all Q (eyewitnesses) here saw

3. Analysis

3.1 Reverse Hybrid Wh-Questions with *who*-phrases

I argue that rHWhs with *who*-words are biclausal, since wh-questions and Y/N-interrogatives are in complementary distribution. In ungrammatical (11a), *kogo* 'whom' can only be construed as a wh-element, while in (11b) it is obligatorily interpreted as an indefinite 'somebody'. Observe that the former combination,

² Some speakers report amelioration effects if a resumptive element is introduced in the second conjunct with *which*-phrases, particularly if the fronted wh-phrase is accompanied by a pause. In contrast, no such amelioration strategies are observable for rHWh cases with fronted *who*-phrases.

- a. *Kogo i vse li zdes' **ego** videli?
 whom and all Q here **him** saw
 b. *Kogo i davno li zdes' **ego** videli?
 whom and all Q here **him** saw
 c. Kakogo prestupnika# i vse li zdes' **ego** videli?
 which criminal and all Q here **him** saw

- (13) Kto [TP kto — pridet] & [skoro li [TP **kto** pridet]]
 wh somebody will.come and soon Q somebody will.com
 ^wh-indefinite (=pro_{INDEF})
 ‘Who will come and will someone come soon?’

At this juncture an obvious question arises: why is (10a) bad? As argued in Franks and King (2000) and King (1995), the material preceding *li* is focalized. Rooth (1992) and Szczegielniak (2004) show that ellipsis is ushered in by destressing. So, the TP in the first conjunct of (10a)/(14) is presupposed and destressed. I propose that, because the element preceding *li* is focalized, its counterpart in the first conjunct cannot be destressed/deleted as demonstrated.

- (14) ?*Kogo [vse zdes' videli] i vse li [zdes' videli]?
 whom all here saw and all Q here saw
Material presupposed and ^ *^Pre-li position contains focalized material:*
destressed before deletion *nothing can correspond to it in the first conjunct.*

The unacceptability of (14) is not limited to pre-*li* quantifiers: the same generalization applies to non-quantified arguments for the same reason: focused *knigi* ‘books’ in (15) cannot have a counterpart in the elided part.

- (15) ?*Kto i knigi li prodal Olegu?
 who and books Q sold to.Oleg

The adjuncts, on the other hand, are acceptable in pre-*li* positions, because they need not be present in the elided part of the first conjunct, being introduced solely in the second conjunct.⁴

These claims are testable. In-situ focus is possible in Russian for some speakers, as demonstrated in (16). If the analysis above is on the right track, we expect to see the deterioration of grammatical examples like (8a) with the in-situ focus. This prediction is borne out, as demonstrated in (17), which is distinctly odd if ‘beer’ is focalized. Since the elided material in the first conjunct is devoid of focus, we get the expected mismatch between the conjuncts, which leads to the observed degraded status.

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- d. Q: Efere o Andreas deka/∅ vivlia? A: Ne, (*ta), efere pro.
 ‘Did Andreas bring 10/∅ books?’ yes def brought [10/ ∅ books]
 e. Q: Efere o Andreas ola ta/ta vivlia? A: Ne, *(ta), efere.
 ‘Did Andreas bring all the/the books?’ yes def brought

⁴ I am agnostic as to whether they are base-generated in pre-*li* positions or appear there via a movement operation. On either account they are absent in the first conjunct, so there is no mismatch in the features of the elided and “surviving” constituents.

3.3 Arguments for base-generation of *which*-phrases

The first argument is based on the Left-Branch Extraction (LBE) facts. In the rHWh construction in (20), the LBE of *kakomu* ‘to which’ is prohibited. This is predicted on my analysis: there is nothing *to* LBE, since the entire *wh*-phrase is generated very high in the structure. Note that in principle this extraction can proceed unhindered in root contexts (21). Furthermore, LBE is acceptable in HWh configurations (22) and in standard ATB-sentences (23). This is unsurprising on the analysis articulated in (5b). Crucially, what distinguishes (20) from (22) and (23) is the cardinality of clauses and the underlying position of the potential extractee: the paradigm below follows straightforwardly if the former are monoclausal with a *which*-phrase merged higher than the expected argument position, but the latter two are biclausal, whereby the QP is free to undergo LBE, stranding the remnant behind.⁵

- (20) *Kakomu i davno li dekan postavil dvojku __ studentu?
to.which and long.time.ago Q dean gave F student
- (21) Kakomu dekan postavil dvojku __ studentu?
to.which dean gave F student
- (22) Mnogo li i kto prines na večerinku __ vina?
many Q and who brought to party wine
‘Did someone bring a lot of wine to the party, and who was it?’
- (23) Mnogo li Ivan prines __, a Sergej vypil __ vina?
many Q Ivan brought and Sergey drank wine
‘Was it lots of wine that Ivan brought and Sergey drank?’

The second argument hinges on crossover effects. Russian is sensitive to strong crossover in non-coordinated contexts, as in (24): (24a) demonstrates that extraction of the *wh*-phrase out of the matrix is fine in contrast to extraction over the co-referential pronoun out of the embedded clause in (24b).⁶ However, in

⁵ The facts are more complicated than discussed here. Some quantifiers (*vse* ‘all’, *mnogo* ‘much’) are more amenable to LBE than others (*každyj* ‘each’) in both HWh questions and standard ATB-sentences. Certain quantifiers (e.g., *-to* and *-nibud’* series) are illicit in all pre-*li* configurations altogether. LBE out of subject positions is prohibited for all quantifiers. Crucially, the pattern is preserved for both HWhs and ATB-examples, which suggests that their derivations proceed in the same way (see Zanon 2014 for details). Note that this parallelism breaks down in rHWh cases as in (20).

⁶ Though extraction out of *čto*-clauses is generally somewhat degraded, there is a clear contrast between (24b) and (24c), since the latter does not give rise to crossover effects.

rHWh contexts, as in (25), no such effect is observed. In fact, (25) simultaneously indicates three things. To begin with, there is no full clause in the first conjunct. Had it been the case, the *wh*-phrase moving across a pronoun would have been expected to incur a crossover violation just like in (24b), contrary to the facts. In addition, the absence of any crossover effect in (25) indicates that the *wh*-phrase cannot have been extracted out the second conjunct either. Finally, the *wh*-phrase must be high enough in the structure to c-command the pronoun in order to bind it. The aggregate of these observations hence strongly supports the analysis in (18).

- (24) a. *Kakoj student₁ skazal, što on₁ opozdal?*
 which student said that he was.late
- b. **Kakoj student₁ on₁ skazal, što __ opozdal?*
- c. *?Kakoj student₁ on₂ skazal, što __ opozdal?*
- (25) A *kakoj student₁ i davno li on₁ skazal, što __ opozdal?*
 and which student and long Q he said that was.late

Third, the peculiar split between *who*- and *which*-phrases in rHWhs with pre-*li* quantifiers reported in (9) and (10=26) follows straightforwardly from my proposal. I argued above that anything other than an adjunct is impossible before *li* in contexts like (26b), i.e., with *who*-phrases. This property is due to the focal nature of the fronted element. The issue does not arise for (26a), since there is no ellipsis in the first conjunct.

- (26) a. *Kakogo prestupnika# i vse li (očevidcy) zdes' (ego) videli __?*
 which criminal and all Q eyewitnesses here (him) saw
- b. *?*Kogo i vse li zdes' videli?*
 who and all Q here saw

Curiously, non-quantified pre-*li* arguments are still degraded even in rHWhs with D-linked *wh*-words, as in (27).

- (27) *?*Kakogo prestupnika i Ivan li zdes' (ego) videl __?*
 which criminal and Ivan Q here (him) saw

Instances like (27) are bad for the following reason. In 'out of the blue' contexts, non-quantified arguments cannot be preceded by *i* 'and', as shown in (28a). This is not the case with pre-*li* quantifiers as in (28b). It follows that (27) is unacceptable for the same reason that (28a) is strange: non-quantified arguments are incompatible with *i* in this context.

- (28) a. #I prestupnika li on tam videl?
and criminal Q he there saw
- b. I vsex li on tam videl?
and everybody Q he there saw

The behavior of *which*-phrases discussed above is symptomatic of their base-generation in the highest position on the clausal periphery. The next section discusses a surprising property (given the antecedent exposition) of *which*-phrases in rHWhs with respect to island-sensitivity. I offer a non-movement account that captures these facts.

3.4 *Which-phrases as Topicalized Constituents (TCs)*

Non-quantified TCs and *which*-phrases in rHWhs are exactly alike in that they evince the same ungrammaticality pattern in island environments. The attempts to front the *which*-phrase out of a relative clause in (29), an adjunct-clause in (30) or a sentential subject in (31) all produce extremely degraded strings. The same holds of standard TCs in (32), (33), and (34) for the same islands. Note that the introduction of the resumptive element produces no amelioration effects in either context.

- (29) *Kakuju stat'ju i vse li znajut avtora, kotoryj (ee) napisal?
which article and all Q know author who (it) published
- (30) *Kakuju stat'ju i davno li studenty pošli v biblioteku, potomu što
which article and long.ago Q students went to library because
im nado bylo (ee) pročitat'?'
to.them necessary was (it) to.read
- (31) *Kakogo redaktora i davno li to što ètot avtor nenavidit (ego)
which editor and long.ago Q that that this author hates (him)
pugaet Ivana?
scares Ivan
- (32) *A ètomu rebenku ty znaeš doktora, kotoryj (emu) postavil priviku?
and to.this child I know doctor who (him) gave injection
- (33) *A ètu stat'ju kto pošel v biblioteku, potomu što emu
and this article who went to library because to.him
nado bylo (ee) pročitat'?'
necessary was (it) to.read
- (34) *A ètogo redaktora to što ètot avtor nenavidit (ego) pugaet Ivana?
and this editor that that this author hates (him) scares Ivan

The upshot of the above is twofold. First, given the parallelism between standard TCs and *which*-phrases in rHWh contexts, it is sensible to treat them in similar terms. Additional indirect evidence for the plausibility of this hypothesis is provided by BCS, in which D-linked wh-phrases behave exactly like TCs with respect to clitic position: *which*-phrases, much like TCs, do not count in the computations of clitic placement in (35b), unlike their non-D-linked counterparts in (35a) (Bošković 2001).

- (35) a. *Ko koga je oborio? (BCS)
 who whom Aux overcome
- b. Koji junačina, koga je oborio?
 which hero whom Aux overcome

On the now standard analysis, as in Bošković (2002) or Rudin (1993), TCs in Slavic are adjoined to CP, the highest projection in the clausal domain. My modification in (18), which involves adjunction to BP, hence complies with the spirit of this proposal: the TC-like *which*-phrase in rHWh constructions are adjuncts to the highest available projection, to wit, BP.

However, the facts in (30)—(31) engender an additional consequence, rendering the base-generation analysis in Section 2.2.1 suspect. The conventional wisdom prescribes movement of *which*-phrases in reverse hybrids, since they are subject to islands. The next section deals with this issue.

3.5 *Movement or base-generation?*

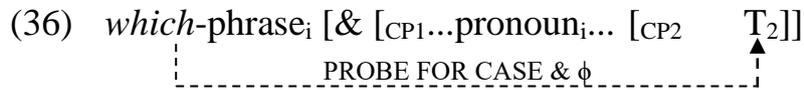
I argue that *which*-phrases are base generated in the position they appear. If so, two questions need to be addressed:

- (i) How to derive island effects without sacrificing the facts concerning crossover?
- (ii) How to obtain the agreement facts (since both TCs and *which*-phrases in rHWhs match the gap/pronoun in number and case)?

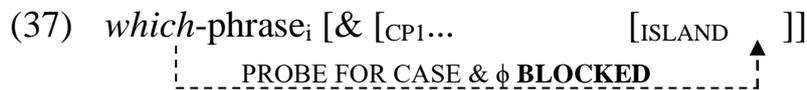
I rely on Bošković's (2007) proposal, adopting his two crucial hypotheses. First, I assume that NPs probe traditional case assigners for case, not the other way around. Second, following his work, I maintain that the operation Agree is not constrained by the Phase-Impenetrability Condition (PIC). Consider how these theoretical tools equip us to answer (ii) above.

Base-generated *which*-phrases probe down the clause in which they are interpreted. Since PIC is irrelevant for Agree, the distance between the *which*-

phrase and its case-assigner is likewise immaterial. Hence, (25) is derived as indicated in (36). Observe that (36) produces the desired result with respect to the lack of crossover effects: the *wh*-phrase does not move over the pronoun, but rather is high enough to c-command and bind it.⁷



Turning now to the question posed in (i) above: why are (29)—(34) unacceptable? Boeckx (2003) observes that “Agree cannot target adjuncts, as adjuncts have inert Φ -features” (100). This he frames a constraint that derives the behavior of strong islands. Hence, the ungrammatical instances in (29)—(30) and (32)—(33) are ruled out, since probe for case and ϕ -features inside the island is blocked, as demonstrated in (37).⁸



4. Conclusion

First, in rHWhs it is necessary to distinguish between *which*-phrases and *who*-phrases. The former are treated as TCs (i.e., high adjuncts in monoclausal structures), while the latter are underlyingly biclausal with *wh*-movement to Spec,CP and ellipsis in the first conjunct.

Second, the impossibility of anything other than an adjunct in pre-*li* positions with *who*-phrases is due to the focal nature of pre-*li* material: since the element preceding *li* is focalized, its counterpart in the first conjunct cannot be destressed/deleted. The second conjunct contains an indefinite *pro*, which is responsible for supplying the indefinite interpretation characteristic of such examples.

Finally, rHWhs with a *which*-phrase evince properties indicative of both movement and base-generation. I argued for the latter: this explains the lack of LBE and crossover effects. The sensitivity to islands is explained independently on the grounds that Agree is inoperable with adjuncts.

⁷ See Villa Garcia (2012) for the account of TCs in Spanish couched in the same terms. Note also that the theta-roles can be considered bundles of features (Bošković and Takahashi 1998, Hornstein 1999, 2003)

⁸ Boeckx (2003) offers a slightly different treatment of the Subject condition. For him, Agree cannot penetrate the Φ -complete domain, which basically amounts to the impossibility of extraction out of moved constituents. This explains (31) and (34).

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