Hybrid Wh-Coordination in Russian[*]

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The paper reports on a neglected phenomenon in Russian, *Hybrid Wh-coordination* (HWh), defined as a configuration in which a Y/N marker (*li*) is conjoined with a wh-word. I will argue for the biclausal genesis of HWh questions, whose surface sequence is derived via ellipsis in the first conjunct. The novel empirical generalizations concern the dichotomy between adjuncts and certain quantifiers as compared to non-quantified arguments and verbs. Only the former, but not the latter, can appear in the position preceding *li* (pre-*li*) in HWh constructions. The analysis that I propose for these facts also bears on the treatment of ATB-constructions and *li*-placement.

1 Introduction

Constructions like (1), dubbed *HWh coordination*, are the focus of this investigation. In (1), a reduced Y/N-interrogative is conjoined with a wh-question, giving rise to an interrogative interpretation in both conjuncts. By contrast, the absence of a coordinator leads to the obligatory construal of a wh-word as a wh-indefinite (2). I will argue that (1) is an instance of CP-coordination with TP-ellipsis in the first conjunct, as in (3).

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(1)   Skoro li**i** kto pridet?
        soon Q   **and** who come_FUT
        'Who will come and will it be soon?'
(2)   Skoro   li   kto pridet?
        soon   Q somebody come_FUT
        'Will someone come soon?'
(3)   Skoro li [~~kto pridet~~] **i** kto pridet?

HWh-coordination has been reported in the literature for BCS and Polish, but the Russian case is somewhat distinct given the nature of its Y/N-marker.[1] In non-coordinated Y/N questions, any word (with the exception of certain quantifiers) can appear before *li*. However, in HWh contexts, the position preceding *li* is restricted to certain elements: only (i) adjuncts, but not (non-quantified) arguments or verbs; and (ii) a limited set of argument QPs are licit in pre-*li* slots. In what follows, I discuss (i) and (ii) in turn.

2 Adjuncts vs. arguments/verbs: basic facts[2]

All the elements listed in (4) can appear in configuration (5), substituting for X. Some examples are provided in (6) below.

(4) a. <u>Adverbs:</u> d*avno* ('long ago'), *zavtra* ('tomorrow'), *vsegda* ('always'), *sjuda* ('to here'), *daleko* ('afar'), *umyšlenno* ('premeditatedly'), *skoro* ('soon'), *xorošo* ('well'), *bystro* ('quickly'), *pravil'no* ('correctly'), etc.
    b. <u>Other adjuncts:</u> locational, directional, instrumental PPs
(5)   **X** *li* & wh-word …

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[1] Browne's (1972) BCS example is in (i); Tomaszewicz's (2011) Polish case is in (ii):
(i) **Da li** i gde si   ih   video? (ii) **Czy**   i   co   studiujesz?
    DA Q and where Aux_2sg them seen   whether and what study_2sg
    'Did you see them and where?'   'Do you study and what do you study?'
Note that the Russian Y/N-marker *li* is distinct from *da li* and *czy* in that it is an enclitic with a strict one prosodic word requirement (see Franks and King 2000).
[2] Elsewhere (Zanon 2013), I argue that 'reverse' HWh cases of the configuration [wh & Y/N Q] as in (i) are not amenable to the analysis advanced in this paper. See cited paper for details.
(i) Kakoj student i   skoro li pridet?
    which student and soon Q come

(6) a. Davno   li i   kto zakazyval zavtrak?
        long.ago Q and who ordered   breakfast
        'Who ordered breakfast and did it happen a long time ago?'
    b. Naročno   li i   kto zdes' razlil   moloko?
        on.purpose Q and who here spilled milk
        'Who spilled milk here and did he do it on purpose?'
    c. ? V   magazin li i   začem ušel Ivan?
          to store   Q and why   left Ivan
        'Why did Ivan leave, and did he go to the store?'

In non-coordinated contexts any element may precede *li*.[3] Example (7a)
with a fronted verb constitutes the most neutral way of asking a Y/N
question.[4] The rest of the paradigm in (7) contains fronted arguments
(N>*li*), which are interpreted as focus bearing elements.

(7) a. Darit li Ivan Lene   cvety?   [Root Y/N-questions]
        gifts Q Ivan to.Lena flowers
        'Does Ivan give flowers to Lena?'
    b.   Ivan li darit Lene cvety?
        'Is it Ivan who gives Lena flowers?'
    c. Cvety li Ivan darit Lene?
    d. Lene li Ivan darit cvety?

By contrast, none of the pre-*li* elements in (7) are permitted in HWh-
questions, as shown in (8). The worst configuration involves a fronted
verb in (8a), while the least degraded one (relative to the rest of the set)
is the dative indirect object in (8d).

(8) a. * Daril li i   čto   Ivan Lene?   [HWh questions]
          gave Q and what Ivan to.Lena
        'Did Ivan give something to Lena and what did he give?'

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[3] Certain quantifiers are illicit in pre-*li* positions in non-coordinated questions. See footnote 14.
[4] An intonation strategy is often preferred over the *li*-strategy in the formation of Y/N
root interrogatives. The *li*-strategy is, however, obligatory in embedded questions.
Speakers who find (7) slightly degraded have no objection to such strings in the
embedded clauses. My arguments extend to both root interrogatives and embedded
contexts.

b. ?* Ivan   li   i   komu   daril   cvety?
        Ivan   Q   and to.who gave   flowers
      'Was it Ivan that gave flowers and to whom?'
c. ?* Cvety   li   i   kto   daril   Lene?
        flowers   Q   and who gave   to.Lena
d. ?? Lene   li   i   čto   podaril Ivan?
        to.Lena Q   and what gave   Ivan

2.1   Adjuncts versus arguments and verbs: towards an analysis
In the ensuing discussion, I adopt Munn's (1993) BP-adjunction structure. I argue that the surface configuration of HWh questions is derived via TP-ellipsis in the first conjunct, as demonstrated in (9).

(9)

$$CP_1$$

CP$_1$ BP

C   ~~TP~~ B   CP$_2$
li   *wh…*
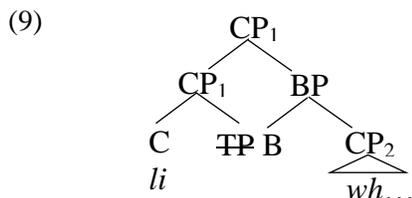
Though there is some debate in the literature on the precise nature of Y/N question formation in Russian (see Bošković 2001, Franks and King 2000, King 1995 and references therein), it is not crucial for the analysis that I am entertaining here. For the sake of explicitness, I assume that *li* is in C^0, the fronted argument occupies Spec-CP, and the verb adjoins to C^0.

    I offer four arguments in support of CP-coordination. First, wh-questions and Y/N-interrogatives are in complementary distribution. They are thus incompatible in a single clause. Second, the conjuncts can be coordinated using a strictly clausal coordinator, *a*, in the presence of high speaker-oriented adverbs, as in (10) (diagnostics due to Tomaszewicz 2011). Third, the coordination of two Y/N markers, as in (11), is possible and predictably so, if the conjuncts are CPs (given the standard practice of treating *li* as a complementizer). Finally, there is a

requirement to answer both conjuncts,[5] suggesting again that HWh questions are underlyingly biclausal; cf. (12b-c) versus (12d).

(10) a. Skoro li **i/a** glavnoe   kto sobiralsja segodnja   zajti?
         soon Q and importantly who was.going today   to.stop.by
         'Will someone stop by soon today, and, importantly, who?'
      b. * Skoro li glavnoe kto sobiralsja segodnja zajti?

(11)   U každogo **li** i   nadolgo **li** xvatit vyderžki i   miroljubija?
         at each   Q and for.long Q suffice restraint and amity
         'Will each have enough restraint and amity and will it be for long?'

(12) a. Skoro li i   kto pridet?
         soon   Q and who will.come
      b. # Ivan   zajdët.   c. #Da.   d. Da, skoro,Ivan   zajdët
         Ivan   stop.by$_{FUT}$ yes   yes soon Ivan   stop.by$_{FUT}$

Returning now to the adjunct/argument asymmetry, I propose that ungrammatical sentences are ruled out due to a missing obligatory element in the second conjunct. The adjuncts can freely precede *li*, since they do need to be present in the second conjunct.

   The most straightforward case is demonstrated in (13=8a) with a simplified derivation in (14). The sentence is ruled out because the verb is missing in the second conjunct.

(13)   * Daril   li [$_{TP}$ čto   Ivan Lene] i   čto   Ivan Lene?
         gave   Q   what Ivan to.Lena and what Ivan to.Lena
(14)   * [V+li [$_{TP}$ t_V]] & [$_{CP}$]
              ^ellipsis   *^missing verb

Arguments are excluded in pre-*li* positions for the same reason: the second conjunct is missing an obligatory element, e.g. the subject in the case of (15=8b).

(15)   ?* Ivan li i   komu daril cvety?
            Ivan Q and to.who gave flowers

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[5] The answer to the Y/N interrogative in HWh questions can only be affirmative for obvious reasons: the second conjunct presupposes an affirmative reply to the first conjunct.

(16)   ?*[NP li [$_{TP}$ t_{NP}]] &   [$_{CP}$]
                      ^ellipsis   *^missing argument

Interestingly, Russian offers several strategies that lead to amelioration in HWh questions involving arguments. One such strategy implicates the introduction of resumptive-like elements, e.g. pronouns or epithets, in the second conjunct, as in (17).[6] Observe that, in (17), the argument structure of the predicates in both conjuncts remains intact. The proposed analysis, hence, predicts the improvement observed below.

(17) a. ? Ivan$_1$ li i   čto   on$_{1/*2}$ včera   nakupil?
           Ivan Q and what he   yesterday bought
           'Did Ivan buy something and what did he buy yesterday?'
     b. ? Ivan$_1$ li i   čto   ètot durak$_{1/*2}$ opjat' včera   nakupil?
           Ivan   Q and what this fool   again yesterday bought
           'Did Ivan buy something and what did this fool buy yesterday?'

I am assuming that the counterpart of the pre-*li* argument in the second conjunct must be coindexed with the pre-*li* argument referring back to it, which yields a resumptive-like interpretation. If this is correct, we then expect HWh questions of the configuration [pronoun *li* & name…] to be unacceptable (the issue here is the ban on backward resumption and the focalized nature of the pre-*li* element). This prediction is borne out, as shown in (18):

(18)   * On$_1$ li i   čto   Ivan$_1$ včera   nakupil?
            he   Q and what Ivan yesterday bought

Contextualization also leads to improvement. As discussed in Gribanova (2013), a contextual antecedent can license object drop in Russian. This is precisely the source of improvement in (19).

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[6] Judgments in (17) vary among speakers: from unacceptable to nearly perfect. This variation is presumably due to the availability of this 'resumptive' strategy among my informants.

(19)   [Context: There are a few clothing items in need of repair]
         ? Džinsy$_1$ li i   kto   zaš'et e_1?
          jeans   Q and who will.sew
         'Will someone sew the jeans and who will sew them?'

In fact, even the speakers who find pre-*li* arguments in HWh questions
only slightly degraded (rather than fully unacceptable as reported above)
impose a particular interpretation, which correlates with argument drop.
The latter is apparent with optionally transitive verbs like *čitat'* ('to
read') in (20a), which require a bound variable reading in the second
conjunct as demonstrated by the paraphrase in (20b). The 'at all' reading,
associated with the intransitive incarnation of *čitat'*, is impossible (20c).

(20) a. ? Bulgakova$_1$ li i   kto zdes' čital e_1?
            Bulgakov Q and who here   read
     b. = 'Was it Bulgakov that someone read and who read him here?'
     c. # 'Was it Bulgakov that someone read and who read here (at
          all)?'

It was noted earlier that, depending on their grammatical function, pre-*li*
arguments in HWh configurations are not uniformly bad. There is a scale
of (un)acceptability, which sets apart subjects and direct objects from
indirect objects. The latter are degraded, but not entirely unacceptable.
This idiosyncrasy can be likewise linked to argument drop: omitting
dative arguments is easier than dropping direct objects or subjects
(though the reason for this remains obscure). So, (21a = 8d) is marginally
acceptable for the same reason as (21b).

(21) a. ?? Lene   li i   čto podaril Ivan?
              to.Lena Q and what gave   Ivan
     b. ??Čto podaril Ivan?

Turning now to adjuncts: since they are not required by the argument
structure of the predicates, they do not need to be present in the second
conjunct. Sentences like (22) are derived as shown in (23).

(22)   Skoro li i   kto pridet?
         soon Q and who come$_{FUT}$

(23)   [Adverb li [$_{TP}$]] & [$_{CP}$]
                    ^full argument structure

Some predicates, however, require obligatory adverbial support, as in (24a). My analysis predicts that the fronting of this adverbial to the pre-*li* position in HWh questions will result in ungrammaticality, since such a configuration ensures that the required element is not present in the second conjunct. The prediction is borne out: though adverb fronting is perfectly acceptable in non-coordinated contexts like (24b), it is impossible in HWh configurations (24c); cf. (24c) with an optional pre-*li* adverb in (24d).

(24) a. Kto   k nemu *(xorošo/ ploxo) otnositsja?
          who   to him   well/ badly   treats
          'Who treats him well/badly?'
     b. Xorošo li Maša   k nemu otnositsja?
         well   Q Masha to him   treats
     c. *Xorošo li i   kto   k nemu otnositsja?
          well   Q and who   to him   treats
     d. Xorošo li i s kem včera sygral *Spartak*?
   'Did *Spartak* play well yesterday and with whom did it play?'

So far, we are led to the following conclusions. HWhs involve CP coordination with ellipsis in the first conjunct. As long as a fully-fledged argument structure is preserved in both conjuncts, HWh configuration is possible. No "rescue" strategies are available for verbs, thus they are the least acceptable; however, some "repair" strategies, e.g. the introduction of resumptive-like elements and argument drop, exist for pre-*li* arguments. These strategies can salvage the argument structure in both conjuncts of HWh questions. By far, the best examples are constructible with pre-*li* adjuncts, since the latter are not required by the argument structure of the predicates.

3   Quantifiers

A limited number of quantified arguments may appear in pre-*li* positions. Those allowed in such positions are catalogued in (25a); those prohibited are listed in (25b). Some acceptable examples are given in (26).

(25) a. <u>Permitted:</u> *vse* ('all'), *vsë* ('everything'), *vsjakij* ('every'), *mnogo*
('a lot;' adverbial), *každyj* ('each').
   b. <u>Prohibited:</u> *kto-to* ('somebody'), *kto-nibud'* ('somebody'), *kto-libo* ('someone'), *neskol'ko* ('several'), *nikto* ('no one'), *mnogie*
('a lot;' adjectival), *ljuboj* ('any'), *malo* ('little, few'), *nemnogo*
('not much')

(26) a. Vsë   li   i   kogda Ivan prodal__ Olegu?
       all   Q   and   when   Ivan sold   Oleg$_{dat}$
       'Did Ivan sell everything to Oleg and when did he do it?'
   b. Mnogo li i   kto priglasil na novyj god __ ljudej?
      many   Q and who invited   to   new   year   people
      'Did somebody invite many people to the New Year's eve party,
      and who was it?'

I propose that an argument can precede *li* only if it is extracted in an
ATB-fashion from each conjunct to a position high enough to
c-command both traces, as in (27). I suggest that QR is the only possible
operation that is able to accomplish this process.

(27)
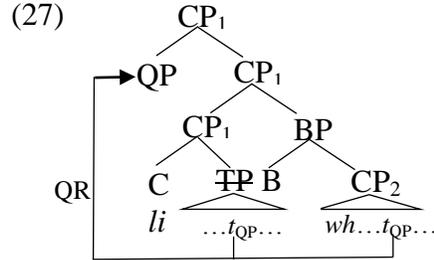
The assumption that Russian has QR is what is driving the following
discussion. Antonyuk-Yudina (2006, 2009) demonstrates that Russian
patterns with English with respect to the availability of inverse scope in
doubly quantified SVO sentences. She claims that Russian obeys
complex DP constraint; it is sensitive to Weak Crossover and CSC; and
finally, the Inverse Linking Construction is grammatical in Russian. The
crucial take-away point for the present exposition is that QR is
independently attested in Russian. I take this much for granted.

My proposal concerning the status of QR in HWh questions requires two basic ingredients. First, QR is normally taken to be confined to the "covert" component of the grammar. I assume a single-cycle syntax where "covert" is understood as a copying operation that results in the pronunciation of the *tail* of the chain in PF (i.e. of the lowest copy). [7] Second, in non-QR cases, certain PF considerations sometimes affect the expected PF copy deletion: instead of "normal" *high* copy pronunciation, a lower copy is pronounced. What I propose is a reflex of those two ideas. PF considerations in the cases of HWh coordination require the pronunciation of the *head* of the chain (to support *li*), instead of the expected low copy of the QP.

Fox and Nissenbaum (1999) conceive of QR in terms of higher copy deletion. Under their account, QR involves movement prior to Spellout with pronunciation of the lower copy. This approach allows them to account for the extraposition facts of English. Briefly, they derive (28a) as follows: first, the indefinite DP is QRed to the right edge of VP; the PP *by John* then adjoins to the QRed DP; in phonology, the higher copy of the quantified DP is deleted, as sketched in (28b).

(28) a. We saw a painting yesterday by John.
     b. We saw a painting yesterday [[a painting] by John].
                  ^QR:head of chain ^overt adjunction to the QRed DP

The second component that inspires my analysis has to do with the exigencies of PF. Franks (1998) and Bošković (2001, 2002) demonstrate that certain PF constraints conspire to cause the pronunciation of the lower copy instead of the usual higher copy. Such PF considerations trigger delayed clitic placement in languages like BCS or the unusual low pronunciation of wh-words in multiple wh-fronting languages. The latter is demonstrated in (29). Though wh-fronting is obligatory in BCS (cf. (29b) and (29c)), the phonological ban on contiguous homophonous wh-words forces the pronunciation of the lower wh-copy in (29a).

(29) a. [Šta   šta$_i$ [uslovljava šta$_i$]]?   (Bošković 2002)
        what what conditions what

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[7] See also Bobaljik 1995, Pesetsky 1998, Groat and O'Neil 1994 for more general approaches where covert movement is recast in terms of pronunciation of lower copies.

b. Ko   šta   voli?   c. *Ko voli šta?
   who   what   loves

With these two considerations in mind consider the derivation of (26b) in
(30) below. *Vsë* ('all') undergoes QR out of both clauses and adjoins to
the highest CP. The prosodic requirements of *li*, which is an enclitic,
require that the highest copy be pronounced. Instead of the expected low
copy pronunciation (as is normally the case with QR), phonological
requirements prompt high copy pronunciation.

(30)   **Vsë** li~~[TP ...vsë...]~~   i   kogda Ivan prodal ~~vsë~~ Olegu?
        all   Q   and when   Ivan sold   Oleg$_{dat}$
            ∧The highest copy of Q is
              pronounced to support *li*

With this first approximation in place, it is possible to examine the
details of the proposal. As mentioned earlier, the analysis includes two
parts: QR and ATB movement. The next sections deal with each one in
turn.

3.1 Evidence for QR
There are two arguments in support of QR. First, only quantifiers
undergo this movement (recall that non-quantified arguments are not
subject to this operation). Second, since "normal" QR is an operation that
obeys a clause boundedness restriction, we expect the movement in HWh
questions to obey the same locality constraints, which is indeed the case,
as in (31).

(31)   * Vse$_i$ li i   kto skazal, čto Maša   prodala __knigi
          all   Q and who said   that Masha   sold   books
        Olegu?
        Oleg$_{dat}$
        'Did somebody say that Masha sold all the books to Oleg and
        who said that Masha sold all the books to Oleg?'

While extraction out of *čto*-clauses in Russian is assumed to be
independently prohibited, in colloquial Russian long-distance movement
of non-quantified NPs, as in (32), is possible, albeit somewhat degraded.
At the very least, the contrast between (31) and (32) is palpable. Observe

also that the pattern in (32-33) is replicated in *čtoby*-clauses in (33) and (34), where the contrast in question is even clearer.

(32)   ?? Ètu knigu   Ivan skazal, čto Maša   prodala __ Olegu.
           this book   Ivan   said   that Masha sold   Oleg$_{dat}$
(33)   ?* Vse li i   kto xotel, čtoby Maša prodala __ knigi
           all   Q and who wanted that$_{SUBJ}$ Masha sold   books
        Olegu?
        Oleg$_{dat}$
        'Did somebody want Masha to sell all the books to Oleg, and who wanted Masha to sell all the books to Oleg?'
(34)   Ètu   knigu Ivan xotel, čtoby Maša   prodala Olegu.
        this   book Ivan wanted that$_{SUBJ}$ Masha sold   Oleg$_{dat}$

I conclude that there is compelling evidence that QR is operable in HWh contexts. This approach renders the locality restrictions and the impossibility of pre-*li* non-quantified arguments rather unsurprising.

3.2 Evidence for ATB-movement
This section presents three pieces of evidence in favor of ATB movement in HWh questions. Based on binding facts, parallelism of HWh questions with the "standard" ATB extraction pattern, and "repair-by-ellipsis" effects, I will show that the quantifier must be extracted out of each conjunct.

    The first argument comes from binding facts. The extracted quantifier binds a reflexive in the second conjunct, as in (35). Since this is the case, a copy of *každyj učastnik* ('every participant') must be present in the second conjunct in order to establish a local binding configuration. Such an outcome is expected under the current analysis.[8]

(35)   Každyj li učastnik$_i$ i   skol'ko   svoix$_i$ èkzempljarov
        each   Q participant and how.many own   samples
        predstavil na   vystavke?
        presented on   exhibition
        'Has each participant presented his samples at the exhibition and how many samples did he present?'

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[8] Recall also that the fronted quantifier is high enough to c-command the reflexive.

The second argument hinges on the exact parallelism between HWh questions and "standard" ATB extraction facts. In particular, both configurations impose the same set of restrictions on left-branch extraction (LBE) out of certain positions: while LBE out of object positions results in acceptable surface strings, LBE out of subject positions is prohibited. Furthermore, certain quantifiers are more amenable to LBE than others.

Consider first the extraction of *mnogo* ('many') out of object positions. In both HWh questions in (36a) and ATB constructions in (37a), LBE of *mnogo* is not only possible, but, in fact, preferred (my informants consistently choose the (a) over (b) examples in (36-37)). This preference is manifested for both HWh questions and ATB-sentences.[9]

(36) a. 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?'
     b. Mnogo li vina i kto prines na večerinku __?
(37) a. 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?'
     b. Mnogo li vina Ivan prines __, a Sergej vypil __?

By contrast, LBE of *každyj*-type quantifiers is worse than LBE of *mnogo*-type quantifiers from object positions in both HWh questions in (38) and "standard" ATB constructions in (39).[10] QPs with *každyj*-type quantifiers exhibit a strong preference for pied-piping their complements.[11]

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[9] In the (a) examples, the sole extractee is Q *mnogo*, but in the (b) examples the entire QP *mnogo vina* is fronted. The placement of *li* in (36b-37b) is due to a PF reordering mechanism, which places the complementizer after the first prosodic word. The same holds of (38). See Section 3.4 for details.

[10] Some speakers reject examples (40a) and (41a) altogether.

[11] One possible solution to this split between *mnogo* and *každyj*-type quantifiers with respect to LBE is articulated in Bošković (2006), who argues that the genitive of quantification assigning elements (like *mnogo*) are located in Spec-QP, while agreeing Qs (like *každyj)* are found in the head of QP. Since LBE is an instance of phrasal movement, *každyj* is ineligible for this operation, but *mnogo* is eligible. Whether this analysis is

(38) a. ??Každogo li i kto poxvalil na vystavke __učastnika?
　　　 each　　Q and who praised on exhibition　participant
　　　'Has each participant been praised by someone and who praised
　　　each participant?'
　　b. Každogo li učastnika i kto poxvalil __ na vystavke?

(39) a. ??Každogo li　na vystavke Ivan　poxvalil __, a　　Maša
　　　 each　　Q on exhibition Ivan　praised　　and Masha
　　　osudila　　učastnika?
　　　denounced　participant
　　　'Has Ivan praised and Masha denounced each participant?'
　　b. Každogo li učastnika na vystavke Ivan poxvalil __, a Maša
　　　osudila __?

The generalization concerning the parallelism between ATB and HWh object LBE contexts likewise extends to the restrictions on extraction out of a subject position. Regardless of the type of quantifier, LBE out of subject position is uniformly prohibited in both HWh questions and ATB constructions. Examples (40a) and (41a) show that LBE of *mnogo*-type quantifiers is illicit in HWh and ATB sentences, respectively. The same holds of *každyj*-type quantifiers.

(40) a. *Mnogo li i　kakie　imenno èkzempljary poxvalili　na
　　　 many　Q and which　exactly samples　　praised　　on
　　　vystavke __ ljudej?
　　　exhibition　people
　　　'Did many people praise certain samples at the exibition and
　　　which samples did they praise?'
　　b. Mnogo li ljudej i kakie imenno èkzempljary poxvalili na
　　　vystavke?

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correct is somewhat orthogonal to my argument. The crucial observation is that HWh questions pattern *exactly* like ATB constructions, suggesting that the mechanism deriving the former is the same as the one underlying the latter.

(41) a. *Mnogo li poxvalili Mišiny   èkzempljary, no osudili
         many   Q praised   Misha's   samples   but denounced
      Mašiny   obrazcy   __ ljudej?
      Masha's   giveaways people
      'Did many people praise Misha's samples but denounced
      Masha's giveaways?'
   b. Mnogo li ljudej poxvalili Mišiny ekzempljary, no osudili
      Mašiny obrazcy?

The consistently uniform behavior of HWh questions and ATB constructions with respect to the possibility of LBE strongly suggests that the same mechanism is implicated in their derivations.

The strongest piece of evidence for ATB-movement emerges in ellipsis contexts. It has been argued extensively that locality violations improve under ellipsis (Bošković 2011, 2012, Merchant 2001, Ross 1969, among others). Earlier, I demonstrated that quantifiers in HWh questions, being subject to QR, cannot cross a clause boundary. However, if clause boundedness of QR is reducible to locality conditions, we then expect to see amelioration of the clause boundedness effect under ellipsis. This is borne out as shown in (42) for *čto*-clauses and (43) for *čtoby*-clauses. In (42a) and (43a), the elided constituent contains a *-marked element, which identifies the locality violation site.[12] This site containing the violation is subsequently deleted in PF. No such PF operation applies in (42b) and (43b), resulting in ungrammaticality.[13]

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[12] Under the standard analysis, * is assigned to an island if an element crosses it. In order to salvage a derivation, some rescue operation needs to apply. Ellipsis is one such operation: it results in the deletion of an island and the *-bearing element along with it. If this rescue procedure fails to apply, then a violation incurs. Bošković (2012) also makes use of this notation, placing it on the head of the island.

[13] In principle, *vse* 'all' is subject to LBE:

(i) Vsex li i   kogda Ivan priglasil na novyj god __ kolleg?
    all   Q and   when Ivan invited   to new   year   colleagues

(42) a. ?Ja uverena, čto naš zlobnyj dekan sčitaet,   čto kakoj-to
　　　　 I sure   that our evil   dean   considers that some
　　　　 naš student nepremenno provalit ekzameny, no   ne uverena
　　　　 our student definitely   fail   exams   but not sure
　　　　 vse li ~~naš zlobnyj dekan sčitaet, čto kakoj-to naš student~~
　　　　 all   Q
　　　　 ~~nepremenno provalit __~~ **èkzameny**~~}~~.
　　　 b. ***Vse** li [naš zlobnyj dekan sčitaet, čto kakoj-to naš student
　　　　 nepremenno provalit __ **èkzameny**]?
(43) a. ?Ja uverena, čto naš zlobnyj dekan xočet, čtoby kakoj-to
　　　　　　　　　　　　　　　　　　　　　 wants that_{SUBJ}
　　　　 naš student nepremenno provalil ekzameny, no ne uverena **vse** li
　　　　 ~~[naš zlobnyj dekan xočet, čtoby kakoj-to naš student~~
　　　　 ~~nepremenno provalil __~~ **èkzameny**~~}~~.
　　　 b. ?***Vse** li [naš zlobnyj dekan xočet, čtoby kakoj-to naš student
　　　　 nepremenno provalil __ **èkzameny**]?

Now consider examples (31) and (33). The status of (31) and (33) is
parallel to the examples in (42b) and (43b). While the locality violation
in the first conjunct *can* be repaired by ellipsis, the clause boundedness
effect apparently persists in the second conjunct, as sketched in (44). So,
it must be the case that, in (31) and (33), the quantifier is extracted out of
both conjuncts, and not just the first conjunct.

(44)　　 ?*Vse_i li $[_{CP1} [_{CP2}$　t_{VSE}　$]]$ & $[_{CP1} [_{CP2}$　t_{VSE}　$]]$
　　　　　　　　 ^repair by ellipsis　　　　　　　　 ^locality violation

3.3 Consequences for ATB-movement

One potential ramification of my analysis is that ATB-movement is not
reducible to movement out of just one conjunct. Larson (2013) argues for
a variant of this derivation in Macedonian ATB constructions: under his
account, the extracted element belongs only in the first conjunct; the
second conjunct has no gap. At LF, a semantic mechanism ensures the
correct construal of the moved element. His approach fails to explain the
facts in (42) and (43), however. If there is no gap in the second conjunct,
then the lack of repair under ellipsis effects remains a mystery.

　　 Munn's (1993) proposal does accommodate the data above. He

derives ATB-sentences via wh-movement in the first conjunct and operator movement in the second conjunct. The latter operation is subject to locality constraints as desired, but it cannot be easily extended to the LBE examples in (36a) and (37a), in which the first conjunct contains a gap and second conjunct contains a remnant NP, as schematized in (45).

(45)   Quantifier$_1$ [$_{CP1}$… ___] & [$_{CP2}$…[$_{QP}$ t_1 **NP**]]

Some multidominance (MD) accounts of ATB face the same problem. Citko (2003) argues that, in ATB constructions, the extracted element is shared. Successful linearization depends on the absence of overt phonetic material in the gap. She hypothesizes that the possibility of constituent sharing hinges on economy: whenever the constituent *can* be shared, it *must* be shared in order to minimize the number of applications of Merge. This happens when the gaps in each conjunct contain traces of identical material. For this reason, her Polish example in (46a) is ruled out: the entire NP *którego studenta* ('which student') is shared, so it must be ex-situ, as in (46b), to render the structure linearizable. By contrast, (46c) with distinct remnants in each conjunct is an instantiation of determiner sharing, where the wh-word, *ile* ('how many'), is shared. Once *ile* vacates the shared node, the structure becomes linearizable.

(46) a. *Którego on polecił *t* studenta i   firma zatrudniła *t*
          which   he endorsed student   and firm   employed
          studenta?
          student
     b. Którego studenta on polecił *t* i firma zatrudniła *t*?
     c. Ile   on kupił *t* książek, a   ona przeczytała *t* artykulów?
          how.many he bought books   and she read   articles

Now consider (36a) and (37a) in light of the above. On Citko's account, the entire QP, *mnogo vina*, is shared (since the gaps in each conjunct contain non-distinct material). It follows that this entire QP must front to render the configuration eligible for linearization, contrary to the facts in (36a) and (37a). Right-Node-Raising cannot be implicated here, since the remnant can be followed by an adjunct as in (47a). Further, it is

impossible to strand a remnant in the first conjunct as in (47b) or to leave the remnant in each conjunct (47c); cf. (46a).

Given the above, Citko's MD treatment of LBE ATB needs to be amended as follows: (i) either the quantifier *can* be shared in the presence of identical nominal complements (but then what precludes (46a) and (47c)?); or (ii) the mechanism of linearization needs to be revised to allow for shared in-situ remnants in order to accommodate (47a).

(47) a. <u>Mnogo</u> li Ivan prines __, a   Sergej vypil __ <u>vina</u> na
       many   Q Ivan brought   and Sergey drank   wine at
       večerinke?
       party

    b. *<u>Mnogo</u> li Ivan prines __ <u>vina</u>, a Sergej vypil __ na večerinke?

    c. *<u>Mnogo</u> li Ivan prines __ <u>vina</u>, a Sergej vypil <u>__vina</u> na
       večerinke?

A more compelling alternative is offered in Niinuma (2010), whose Romanian ATB-paradigm in (48) evinces a remarkable similarity to the Russian ATB facts in (47). Romanian, a MWF language, like BCS (29), imposes a PF ban on contiguous homophonous wh-words, prohibiting the configurations in (48a) and forcing the pronunciation of the lower O_{wh} copy. Assuming Fox and Pesetsky's (2005) cyclic linearization mechanism, Niinuma proposes that the conjuncts participating in ATB-configurations are constructed and spelled out independently of each other. The order in the final representation must preserve the initial Spell-out order of individual conjuncts. Example (48b) is thus unproblematic: S_{wh} precedes, while O_{wh} follows, both verbs. However, in (48c), the surface position of O_{wh} leads to a contradiction with the underlying position of O_{wh} in the second conjunct, resulting in ungrammaticality.

(48) a. ***Ce   ce**   a   precedat și a   influențat?   ***S_{wh}> O_{wh}**
       what what has preceded and has influenced
                                 *PF ban: contiguous homophonous wh-words

    b. **Ce** a precedat şi a influenţa **ce**?   ✓S_{wh} >V1>~~O_{wh}~~ & S_{wh}>V2> O_{wh}
                             ✓linear order preserved in both conjuncts

c. *__Ce__ a precedat **ce** şi a influenţat? **S_{wh} >V1>O_{wh} & S_{wh}>V2> Θ_{wh}**
*ordering conflict: wh_{obj}>influenţat>wh_{obj}

The Russian facts in (47=49) beg for a unified analysis with the Romanian ATB-pattern: (47a=49a) is the only configuration in which the underlying linear order of the remnant is preserved in the final representation (*vina* follows the verbs in each conjunct). Predictably, (47b=49b) and (47c=49c) are ruled out, since they result in ordering conflicts, whereby the pronunciation of the remnant in the first conjunct induces a contradiction with the Spell-out order in the second conjunct.

(49) a. ✓<u>mnogo</u> li S_1 V_1 t_i ~~vina~~ & S_2 **V_2** t_i <u>vina</u>   ✓linear order preserved
    b. *<u>mnogo</u> li S_1 V_1 t_i <u>vina</u> & S_2 **V_2** t_i ~~vina~~   *ordering conflict
    c. *<u>mnogo</u> li S_1 V_1 t_i <u>vina</u> & S_2 **V_2** t_i <u>vina</u>   *ordering conflict

3.4 LI placement

In the fully grammatical sentences in (38-41), the entire QP moves in front of *li*. Subsequent PF reordering is responsible for the surface placement of *li* after the first prosodic word, since Russian *li* is subject to the first word restriction (Bošković 2001, King and Franks 2000). Recall from Section 3.2 that LBE out of subject positions is prohibited, so the entire QP must be pied-piped as in (50), with a derivation, as in (51). In syntax, the QP is QRed out of each clause in (51a). In PF, the first conjunct TP is elided, while the phonological properties of *li* force the apparent splitting of the QP, as in (51b).

(50)   **Každyj** li **učastnik**   i   kakie èkzempljary poxvalil na
        each   Q participant and which   samples   praised   on
        vystavke?
        exhibition

(51) a. Syntax: **Každyj učastnik** li[_TP___]i [kakie èkzempljary___ poxvalil ...]

ATB QR

b. PF: **Každyj učastnik** li [_TP___] i [kakie èkzempljary ___ poxvalil...]
^ellipsis

PF reordering

Note that the Prosodic Inversion analysis in which *li* moves to the right in PF is not possible in those examples, since, as I have argued above, the fronted element must be higher than *li*.

In this section, I argued that, in HWh contexts, a subset of quantifiers can be extracted in ATB fashion and adjoined to the higher CP. The process underlying this derivation is QR, since only quantified arguments are subject to extraction in this configuration. The pronunciation of the higher copy is triggered by prosodic requirements of the enclitic *li*.[14]

4   Conclusion

The central claim of this paper is that HWh questions are underlyingly biclausal, with surface strings derived via TP-ellipsis in the first conjunct. HWh questions are distinct from root Y/N questions in that the pre-*li* position is restricted to certain elements. The following table demonstrates possible configurations:

	Configuration	Status
(1)	Adjunct *li* & wh	OK
(2)	Non-quantified argument *li* & wh	?*
(3)	V *li* & wh	*
(4)	Quantified argument *li* & wh	OK

The observed asymmetry between pre-*li* adjuncts versus arguments and verbs is due to the preservation of argument structure in both conjuncts: HWh questions are licensed only if both conjuncts contain all the obligatory elements. The behavior of quantifiers is a consequence of QR, which proceeds in ATB-fashion out of both conjuncts. Non-quantified arguments and verbs, on the other hand, are ineligible for this derivation.

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[14]The quantifiers in (25b) are generally illicit preceding *li*. There are a few possible reasons why these quantifiers cannot participate in the construction under consideration (at least one of the following reasons holds for each element in (25b)). First, they simply do not co-occur with *li* as shown in (i):

(i) *Kto-nibud' li   kupil   moloko?
       someone   Q   bought   milk

Second, they do not undergo QR (see Yanovich 2005). Third, Fitzgibbons (2011) argues that the highest possible position for *–nibud'* quantifiers is Spec-AgrSP. I will leave this issue for further research.

Their appearance in pre-*li* positions results in a missing obligatory element in the second conjunct. Since the adjuncts are not required by the argument structure of the predicate, they do not need to be present in the second conjunct, so they are licit in pre-*li* positions. For PF reasons (to provide prosodic support for *li*), the highest copy of the quantifier is pronounced.

References

Antonyuk-Yudina, Svitlana. 2006. The scope of quantifier phrases in Russian: A QR analysis. In *Linguistics in the Big Apple*.

—. 2009. Long-distance scrambling, VP ellipsis, and Scope Economy in Russian. In *Proceedings of PLC 32*.

Bobaljik, Jonathan 1995. Morphosyntax: the syntax of verbal inflection. Ph.D. dissertation, MIT.

Bošković, Željko. 2001. *On the nature of the syntax-phonology interface: Cliticization and related phenomena*. Amsterdam: Elsevier.

—. 2002. On multiple wh-fronting. *Linguistic Inquiry* 33: 351–383.

—. 2006. Case and agreement with genitive of quantification in Russian. In *Agreement systems*, 99–121. Amsterdam: John Benjamins.

—. 2011. Rescue by PF deletion, traces as (non)-interveners, and the *that*-trace effect. *Linguistic Inquiry* 42: 1–44.

—. 2012. Traces do not head islands: What can PF deletion rescue?, Ms., University of Connecticut.

Browne, Wayles. 1972. Conjoined question words and the limitation on English surface structure. *Linguistic Inquiry* 3: 223–226.

Citko, Barbara. 2003. ATB Wh-Movement and the Nature of Merge. In *Proceedings of NELS 33*, 87–102. Amherst: GLSA Publications.

Fitzgibbons, Natasha. 2011. On licensing requirements of the Russian - nibud' series. Ms.// http://ling.auf.net/lingbuzz/001178

Fox, Danny and Jon Nissenbaum. 1999. A case for overt QR. In *Proceedings of WCCLF 18*, 132-144. Somerville: Cascadilla Press.

Fox, Danny. 2000. Economy and semantic interpretation. Linguistic Inquiry monographs. Cambridge: MIT Press.

Fox, Danny and David Pesetsky. 2005. Cyclic linearization of syntactic structures. *Theoretical Linguistics* 31: 1–45.

Franks, Steven. 1998. Clitics in Slavic. Paper presented at the

Comparative Slavic Morphosyntax Workshop, Indiana U, Bloomington.

Franks, Steven and Tracy King. 2000. *A Handbook of Slavic Clitics*, Oxford: Oxford University Press.

Gribanova, Vera. 2013. Verb-stranding verb phrase ellipsis and the structure of the Russian verbal complex. *NLLT* 31(1): 91–136.

Groat, Erich and John O'Neil. 1994. Spellout at the LF interface. Ms., Harvard University.

King, Tracy. 1995. *Configuring Topic and Focus in Russian*. Stanford: CSLI publications.

Larson, Bradley. 2013. Not-so-across-the-board movement in Macedonian. In *Proceedings of FASL 21*, 120-133 Ann Arbor: Michigan Slavic Publications.

Merchant, Jason. 2001. *The syntax of silence*, Oxford: Oxford U Press.

Munn, Alan. 1993. *Topics in the syntax and semantics of coordinate structures*. Ph.D. dissertation, UMD, College Park.

Niinuma, Fumikazu. 2010. Across-the-Board and parasitic gap constructions in Romanian. *Linguistic Inquiry* 41 (1): 161–169.

Pesetsky, David. 1998. Some optimality principles of sentence pronunciation. In *Is the best good enough? Optimality and competition in syntax*. Cambridge: MIT Press.

Ross, John. 1969. Guess who? In *CLS 5,* 252–286.

Tomaszewicz, Barbara. 2011. Wh & Wh: Syntactic and Semantic Arguments for Clausal Coordination. In *Proceedings of FASL 19*. Ann Arbor: Michigan Slavic Publications.

Yanovich, Igor. 2005. Choice-functional series of indefinite pronouns and Hamblin series. In *SALT 15*, 309–326, eLanguage.

Zanon, Ksenia. 2013. On Russian coordinated questions and ATB-movement. Paper presented at *FDSL 10*.

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