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).

* Many thanks to the audience and the reviewers of FASL 22 for comments and discussion.
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. 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

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

(4) a. Adverbs: davno (‘long ago’), zavtra (‘tomorrow’), vsegda (‘always’), sjuda (‘to here’), daleko (‘afar’), umyšlenno (‘premeditatedly’), skoro (‘soon’), xorošo (‘well’), bystro (‘quickly’), pravil’no (‘correctly’), etc.
   b. Other adjuncts: locational, directional, instrumental PPs

(5) X li & wh-word …

1 Browne’s (1972) BCS example is (i); Tomaszewicz’s (2011) Polish case is in (ii):
   (i) Da li i gde si ih video? (ii) Czy i co studijesz?
   ‘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
In non-coordinated contexts any element may precede li. Example (7a) with a fronted verb constitutes the most neutral way of asking a Y/N question. 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?’

---

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)

\[
\begin{array}{c}
\text{CP}_1 \\
\text{CP}_2 \\
\text{BP} \\
\text{C} \\
\text{li} \\
\text{TP} & B \\
\text{wh} \\
\end{array}
\]

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 C₀, the fronted argument occupies Spec-CP, and the verb adjoins to C₀.

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, 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 kazdogo li i nadolgo li xvatit vyderzki 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 zajdet. c. #Da. d. Da, skoro, Ivan zajdet

Ivan stop.byFUT yes yes soon Ivan stop.byFUT

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 Lena] i čto Ivan Lena?
gave Q what Ivan to Lena and what Ivan to Lena

(14) * [V+li [TP tv]] & {CP }

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

---

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.
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). 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. ?Ivan1 li i čto on1/r2 včera nakupil?
   Ivan Q and what he yesterday bought
   ‘Did Ivan buy something and what did he buy yesterday?’

b. ?Ivan1 li i čto etot durak1/r2 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) *On1 li i čto Ivan1 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).

---

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.
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).

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).

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).

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

b. ?? Čto podaril Ivan?

(22) Skoro li i kto pridet?
   soon Q and who come_{FUT}
Some predicates, however, require obligatory adverbial support, as in (24a). My analysis predicts that the fronting of this adverbial to the pre-\textit{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-\textit{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-\textit{li} arguments. These strategies can salvage the argument structure in both conjuncts of HWh questions. By far, the best examples are constructible with pre-\textit{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-\textit{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. **Permitted:** vsé (‘all’), vsë (‘everything’), vsjakij (‘every’), mnogo (‘a lot,’ adverbial), každyj (‘each’).

b. **Prohibited:** 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<br>

   ‘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) \[
\begin{array}{c}
\text{QP} \\
\text{CP}_{1} \\
\text{CP}_{1} \\
\text{CP}_{1} \\
\text{CP}_{2} \\
\text{BP} \\
\text{C} \\
\text{li} \\
\ldots_{QP} \\
\text{TP} \\
\text{B} \\
\ldots_{wh} \\
\text{QP} \ldots
\end{array}
\]

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). 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 extrapolation 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).

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

The second component that inspires my analysis has to do with the exigencies of PF. Franks (1998) and Boškovič (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).

\[(29)\]
\[
a. [\text{Šta } \text{štaj, [uslovjava šta,]}]? \quad \text{what what conditions what} \\
\quad \text{(Boškovič 2002)}
\]

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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
^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) *Vsë, li i kto skazal, cto Maša prodala ___knigi  
all Q and who said that Masha sold books
Olegu?
Oleg
‘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) ?? Ėtu knigu Ivan skazal, čto Maša prodala __ Olegu.
    this book Ivan said that Masha sold Oleg
(33) ?* Vse li i kto xotel, čtoby Maša prodala __ knigi
    all Q and who wanted that SUBJ Masha sold books
    Oleg
Oleg
    ‘Did somebody want Masha to sell all the books to Oleg, and
    who wanted Masha to sell all the books to Oleg?’

(34) Ėtu knigu Ivan xotel, čtoby Maša prodala Olegu.
    this book Ivan wanted that SUBJ Masha sold Oleg
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 skol'ko svoišx, 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?’

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
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.

(38) a. ??Každago 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. Každago li učastnika i kto poxvalil __ na vystavke?

(39) a. ??Každago 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. Každago li učastnika na vystavke Ivan poxvalil __, a Maša osudila __?

The generalization concerning the parallelism between ATB and 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

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 nepremенно 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 nepremенно provalit __ekzameny].

b. *Vse li [naš zlobnyj dekan sčitaet, čto kakoj-to naš student nepremенно provalil __ekzameny]?

(43) a. ?Ja uverena, čto naš zlobnyj dekan xočet, čtoby kakoj-to wants thatSUBJ naš student nepremenno provalil ekzameny, no ne uverena vse li [naš zlobnyj dekan xočet, čtoby kakoj-to naš student nepremenno provalil __ekzameny].

b. *Vse li [naš zlobnyj dekan xočet, čtoby kakoj-to naš student nepremenno provalil __ekzameny]?

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 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) \[ \text{Quantifier}_1 [\text{CP}_1 \ldots \_ \] & [\text{CP}_2 \ldots [\text{QP} \_ t_1 \text{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 student?

b. Którego studenta on polecił t i firma zatrudniła t?
c. Ile on kupił t książek, a ona przeczytała t artykułów?
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. Mnogo li Ivan prines __, a Sergej vypil __ vina na many Q Ivan brought and Sergey drank wine at večerinke?
   b. *Mnogo li Ivan prines __ vina, a Sergej vypil __ na večerinke?
   c. *Mnogo li Ivan prines __ vina, a Sergej vypil __ vina 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?  \[S_{wh} > O_{wh}\]
   b. Ce a precedat și a influența ce? \[S_{wh} > V1 > O_{wh} \& S_{wh} > V2 > O_{wh}\]
   \[\text{\textbullet\textbullet linear order preserved in both conjuncts}\]
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. √\textit{mnogo} li $S_1 V_1 t_1 \textit{vina}$ & $S_2 V_2 t_1 \textit{vina}$ √linear order preserved
   b. *\textit{mnogo} li $S_1 V_1 t_1 \textit{vina}$ & $S_2 V_2 t_1 \textit{vina}$ *ordering conflict
   c. *\textit{mnogo} li $S_1 V_1 t_1 \textit{vina}$ & $S_2 V_2 t_1 \textit{vina}$ *ordering conflict

3.4 \textit{li} placement

In the fully grammatical sentences in (38-41), the entire QP moves in front of \textit{li}. Subsequent PF reordering is responsible for the surface placement of \textit{li} after the first prosodic word, since Russian \textit{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 \textit{li} force the apparent splitting of the QP, as in (51b).

(50) \textbf{Každyj} li učastnik i kakie èkzempljary poxvalil na each Q participant and which samples praised on vystavke?

(51) a. Syntax: \textbf{Každyj učastnik} li[TP...][\textit{kakie èkzempljary ...}]
    \hspace{1cm} \textbf{ATB QR}
    \hspace{1cm} \textbf{ellipsis}

   b. PF: \textbf{Každyj učastnik} li[TP...][\textit{kakie èkzempljary ...}]
    \hspace{1cm} \textbf{PF reordering}

    poxvalil...}
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:

<table>
<thead>
<tr>
<th>Configuration</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Adjunct li &amp; wh</td>
<td>OK</td>
</tr>
<tr>
<td>(2) Non-quantified argument li &amp; wh</td>
<td>?*</td>
</tr>
<tr>
<td>(3) V li &amp; wh</td>
<td>*</td>
</tr>
<tr>
<td>(4) Quantified argument li &amp; wh</td>
<td>OK</td>
</tr>
</tbody>
</table>

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.

14The 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-\textit{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-\textit{li} positions. For PF reasons (to provide prosodic support for \textit{li}), the highest copy of the quantifier is pronounced.

References


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