# Against Partial Wh-Movement in Russian

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### 1 Introduction

Russian has a construction that consists of two clauses: kak-clause with the fronted wh-adverbial kak 'how' and wh-clause with a fronted wh-phrase\*:

- (1) kak vɨ $\int_{0}^{j}$ ita-it $^{j}$ i, patfimu l $^{j}$ ud $^{j}$ -i jid $^{j}$ -at how you(pl).NOM consider-2PL.PRES why people-PL.NOM eat-3PL.PRES m $^{j}$ as-a? meat-SG.ACC 'Why do you think people eat meat?; lit. How you consider why people eat meat?'
- (2) kak ti duma-if, tfj-i et-o stix-i?
  how you.NOM think-2SG.PRES whose-NOM.PL this-N.SG.NOM poem-NOM.PL
  'Whose verses do you think it is?;
  lit. How you think whose verses it is?'

Sentences above seem to be structural variants of long extraction<sup>1</sup>:

- (3) **patfimu** vi  $\int^j ita-it^j i$   $l^j u d^j i$   $ji d^j at$  why you(pl).NOM consider-2PL.PRES people-PL.NOM eat-3PL.PRES m<sup>j</sup> as-a? meat-SG.ACC 'Why do you think people eat meat?'
- (4) **tfj-i** ti duma-if et-o stix-i? you.NOM think-2sg.Pres whose-NOM.PL this-N.sg.NOM poem-NOM.PL 'Whose verses do you think it is?'

This apparent equivalence gave rise to analyses of the construction as an instance of Partial Wh-Movement (Stepanov 2000), (Fanselow 2006).

I argue against this analysis and claim that Russian has no partial movement. The construction in question exhibits restrictions and properties unexpected of a genuine partial

<sup>\*</sup>Many thanks to Daniel Büring, Lyn Frazier, Vania Kapitonov, Hilda Koopman, Anoop Mahajan, Anna Szabolcsi and Igor Yanovich for various discussions and encouragement.

<sup>&</sup>lt;sup>1</sup>It should be noted that Russian fronts *wh*-phrases obligatorily.

movement. For instance, it is limited to a small set of predicates, cannot be embedded to form an indirect question and does not have fixed linear order of the two clauses. This does not fit particularly well into the typology of partial movements.

I propose instead that this construction is a parenthetical. Under this assumption, absence of fixed linear order, non-embeddability and comma intonation become natural and expected. Instead of being treated as a main clause, this parenthetical should be analyzed as a root adjunct to the wh-clause. Semantically, it is a conventional implicature à la (Potts 2002), (Potts 2005) that does not contribute to assertion, or at-issue content, but conveys additional meaning. In this analysis, syntactic and semantic idiosyncrasies of the construction are explained by its supplemental status.

### 2 Partial Movements

#### 2.1 The Phenomenon

The term **Partial Movement** covers an array of phenomena in multiple languages such as Bahasa Indonesian, Hindi, Hugarian, German, Malay, and Romani (Lutz et al. 2000). All of these constructions are similar on the surface. There are two clauses, the lower one contains a wh-phrase that takes scope over the whole sentence<sup>2</sup>. The higher clause might (or might not) contain a meaningful wh-phrase. This exactly what Russian looks like. However, it is debated whether or not similarity of these constructions across languages comes from the same structural source.

PM received a bunch of treatments in the literature. It is beyond the scope of this paper to discuss them all, especially given that I challenge the very existence of the phenomenon in Russian. Below I briefly outline major theories.

One family of approaches is proposed by McDaniel (1989) for German and Romani and is called **Direct Dependency**. Basic idea of this approach is that partial and long movement are structural variants. There is only one chain, wh-phrase is stuck on its way and proceeds only to the specifier of its own clause. Its scope in the higher clause is marked by a wh-expletive:

- (5) was glaubst du wer heute ankommt? what think.2sg.pres you.nom who.nom today arrive.3sg.pres 'What do you think who is arriving today?' German (McDaniel 1989, 10)
- (6) so misline kasqoro lil o demìri cítinol? What do you think whose book Demir is reading? Romani (McDaniel 1989, 5)

The analysis itself was often challenged but the name survived and is used as a label.

The next family of approaches is **Indirect Dependency** proposed by Dayal (1994) for Hindi. She claims that partial movement is not a structural variant of long movement. Both clauses are treated as regular questions (with Hamblin semantics provided). Wh-expletive in the higher clause is coindexed with the whole embedded CP and functions as a quantifier over propositions with interpretation restricted by the wh-clause:

<sup>&</sup>lt;sup>2</sup>Sometimes Russian is incorrectly considered (van Gelderen 2001) to have PM without any scope marker.

(7) jaun **kyaa** soctaa hai meri **kahaaN** jaayegii?

John what thinks Mary where will-go
'Where does John think Mary will go?' Hindi (Dayal 1994, 4)

Among other prominent approaches one should mention clausal pied piping account proposed independently by Horvath (1997) for Hungarian and Mahajan (2000) for Hindi and German. It should be also noted, however, that languages are not uniform. Most theories work locally and fail when applied to a language they were not designed for (Beck and Berman 2000).

### 2.2 A Brief Typology

PM in different languages indeed have many similarities. The chart below highlights major properties of these constructions in Hindi, German, and Hungarian. Russian is added for comparison.

	Hindi	Hungarian	German	Russian
any wh-phrase	$\checkmark$	$\checkmark$	$\checkmark$	✓
locality	$\checkmark$	$\checkmark$	$\checkmark$	✓
ungrammaticality across negation	$\checkmark$	$\checkmark$	$\checkmark$	✓
scope marking over yes/no-questions	$\checkmark$	no	no	✓
binding relations between clauses	$\checkmark$	$\checkmark$	$\checkmark$	NO
island effects different from long mymt	$\checkmark$	$\checkmark$	$\checkmark$	NO
further embedding	$\checkmark$	$\checkmark$	$\checkmark$	NO
any clause-embedding predicate	$\checkmark$	$\checkmark$	$\checkmark$	NO
(that does not require wh-complement)				1

Here is a couple of illustrations to the chart:

- further embedding:
  - (8) coocich weiss nicht was hans glaubt mit wem jakob I.NOM know.1SG.PRES not what Hans think.3SG.PRES with who.DAT now jetzt spricht talk3SG.PRES
    'I don't know with whom Hans thinks Jakob is now talking.' German (McDaniel 1989, 6)
- impossibility to co-exist with negation (a negative quantifier in this case):
  - (9) \*koi bhii nahii **kyaa** soctaa thaa ki **kon** aayegaa?
    noone KYAA thinks be.PST that who come.FUT
    #'Who did noone think that will come?' Hindi (Mahajan 2000, 321)

## 3 Russian in the Big Picture

As the chart suggests, Russian shares some of PM properties with other PM languages.

### 3.1 Where Russian is Similar

- it is important that a PM language has no restrictions w.r.t. which wh-phrase can participate in the PM. Russian imposes no such restrictions, and examples throughout the paper should demonstrate that.
- it is important that a PM construction obeys locality while maintaining adjacency of the scope marker and wh-phrase in structures with three clauses. There are two options: either to repeat the scope marker in the intermediate clause or to move the wh-phrase further. Russian apparently rules out the first option while seemingly choosing the second:
  - (10) \*[kak  $t^{j}$ ib $^{j}$ e kazitsa, [Pet $^{j}$ a duma-it, [ $\mathbf{fto}$  ja how you.DAT seem.3SG.PRES Peter.NOM think-3SG.PRES what.ACC I.NOM  $t^{j}$ ib $^{j}$ e padar $^{j}$ -u]]]? you.DAT give.1SG.FUT lit. '[How it seems to you [Peter thinks [what I will give to you]]]?'
  - (11) \*[kak  $t^j$ ib $^j$ e kazitsa, [ kak Pet $^j$ a duma-it, [  $\int$ to ja  $t^j$ ib $^j$ e padar $^j$ -u ]]]? lit. '[How it seems to you [how Peter thinks [what I will give to you]]]?'
  - (12) [kak t<sup>j</sup>ib<sup>j</sup>e kaʒitsa, [ ∫to Pet<sup>j</sup>a duma-it, [ ja t<sup>j</sup>ib<sup>j</sup>e padar<sup>j</sup>-u ]]]? lit. '[How it seems to you [what Peter thinks [I will give to you]]]?' Intended in all cases: 'What does it seem to you that Peter thinks I will give to you?'
- Russian, like other languages, does not allow for scope marking across negation:
  - (13) \*kak  $t^{j}ib^{j}e$   $n^{j}i$  kazitsa, kto  $pr^{j}id^{j}-ot$ ? how you.DAT neg seem.3SG.PRES who.NOM come-3SG.FUT Intended: 'Who it does not seem to you that will come?'

It should be noted that it is hard to come up with a minimal pair. In general, however, Russian allows for long movement across negation:

- (14) \*kto ti  $n^{j}i$  znai $\int$   $\int$ to  $pr^{j}id^{j}$ -ot? who.NOM you.NOM neg know.2sg.PRES that come-3sg.FUT 'Who you do not know that will come?
- Russian, like Hindi, allows for scope marking across yes/no-questions:
  - (15)  $v^j \operatorname{ert}^j \operatorname{itsa} \quad l^j \operatorname{i} z^j \operatorname{iml}^j \operatorname{a}? \quad // z^j \operatorname{iml}^j \operatorname{a} \quad v^j \operatorname{ert}^j \operatorname{itsa}?$  $\operatorname{turn-3SG.PRES} \quad Q \quad \operatorname{earth-NOM.SG} \quad // \quad \operatorname{earth-NOM.SG} \quad \operatorname{turn-3SG.PRES}$

'Is the Earth turning?'

(16) kak  $t^{j}ib^{j}e$  kazitsa,  $v^{j}ert^{j}itsa$   $l^{j}i$   $z^{j}iml^{j}-a$ ? // how you.DAT seem.3SG.PRES turn-3SG.PRES Q earth-NOM.SG //  $z^{j}iml^{j}-a$   $v^{j}ert^{j}itsa$ ? earth-NOM.SG turn-3SG.PRES 'What does it seem to you, is the Earth turning?'

### 3.2 Where Russian is Different

However, there are not so many commonalities between other languages and Russian. First, it does not display several significant properties, second, it shows unexpected restrictions that are hard to handle within a PM approach.

- Russian does not allow for binding relations between the two clauses and dislikes quantified NPs in the *kak*-clause:
  - (17) #kak duma-it kaʒd-ij  $\operatorname{rass}^{j}$ ijan $^{j}$ in, kto how think-3SG.PRES every-M.NOM.SG Russian.citizen.NOM.SG who.NOM  $\operatorname{stan}^{j}$ -it  $\operatorname{pr}^{j}$ iz $^{j}$ id $^{j}$ ent-am? become-3SG.FUT president-INS.SG Intended:'Who does each Russian citizen think will become a president?'
- embeddability is a core property of PM: it is turned into an indirect question. Russian does not allow for this configuration:
  - (18) mam-a spraſiva-it, kak vam kaʒitsa, kavo mom-NOM.SG ask-3SG.PRES how you(pl).DAT seem.3SG.PRES who.ACC najm-ut.
    hire-3PL.FUT
    Intended:'Mom is asking who it seems to you will be hired.'; OK as a quotative only

The sentence is good with long movement:

- (19) mam-a spra∫iva-it, **kavo** vam kaʒitsa, ∫to mom-NOM.SG ask-3SG.PRES who.ACC you(pl).DAT that seem.3SG.PRES najm-ut.
  hire-3PL.FUT
  'Mom is asking who it seems to you will be hired.'
- if *kak*-clause and *wh*-clause are treated as a subordinate structure then there must be some restrictions with respect to their mutual linear order. It is not the case for Russian that allows for any linear position of the *kak*-clause:

- (20) **kak ti**  $\int^{j}$ **ita-i** $\int$ , kavo an-a  $l^{j}$ ub<sup>j</sup>-it? how you.NOM consider-2sg.PRES who.ACC she-NOM love-3sg.PRES 'Whom do you think that she loves?'
- (21) kavo, **kak ti**  $\int_{-\infty}^{j} itai \int_{-\infty}^{j} ana l^{j} ub^{j} it$ ?
- (22) kavo ana, kak ti  $\int_{0}^{j} itai \int_{0}^{j} l^{j} ub^{j} it$ ?
- (23) kavo ana  $l^{j}ub^{j}it$ , kak  $ti \int_{0}^{j}itai$ ?
- kak-clause is highly restricted in terms of predicates that can occur in it. There are only four: kazatsa 'seem', dumat<sup>j</sup> 'think', palagat<sup>j</sup> 'assume', f<sup>j</sup> itat<sup>j</sup> 'consider'. They belong to one natural class but do not constitute it as there are other verbs of thinking. It should be noted that this is a very small subset of bridge verbs. Namely, many of bridge verbs disallow for partial movement:
  - (24) kto ti  $v^j er^j$ -i $\int$  pal $^j$ i $t^j$ e-l na mars? who.NOM you.NOM believe-2sg.PRES fly-M.sg.PST to Mars-ACC 'Who do you believe flew to Mars?'
  - (25) \*kak ti  $v^j e^{-j}$ -if, kto pal $^j$ it $^j$ e-l na mars? how you.NOM believe-2SG.PRES who.NOM fly-M.SG.PST to Mars-ACC
- there exists a strong preference towards present tense in the kak-clause
- first person subjects are banned and third person subjects are far less frequent in the kak-clause
- there is a tendency to have nothing besides kak, subject and predicate in the kak-clause; restriction sensitive to phonology with particles and short adverbials like  $s^{j}ijt$  as 'now' allowed.

## 4 An Integrated Parenthetical?

So far I have shown why Russian is very unlikely to have partial movement. There is another approach at hand. Reis (2000) claims that German constructions fall into two classes. One is genuine PM with expected properties and another is an Integrated Parenthetical. This latter is characterized by the following features:

- the clause with the hypothetical wh-expletive is subordinate
- this clause occupies any linear position w.r.t. the wh-clause
- the wh-clause may contain no wh-phrase being a yes/no-question
- it is possible to iterate the clause with the hypothetical wh-expletive
- main clause material such as abundant modal particles are banned in this clause

this clause lacks prosodic autonomy

Apparently, Russian shares some of these properties, in particular, it does move the *kak*-clause around and allows for scope marking over a yes/no-question. It was even proposed by van Gelderen (2001) that Russian construction is akin to German IPs. I argue that it is not. It differs from German in several crucial points:

- Russian does not allow iteration
  - (26) \*kak t<sup>j</sup>ib<sup>j</sup>e kazitsa, kak tɨ duma-iʃ, v<sup>j</sup>ert<sup>j</sup>itsa how you.DAT seem.3sg.PRES how you.NOM think-2sg.PRES turn-3sg.PRES li z<sup>j</sup>iml<sup>j</sup>-a?
    Q earth-NOM.sg
    Lit. What do you think, what does it seem to you, is the Earth turning?
- Russian allows main clause material, such as short modal particles (similar to German ja and doch)
  - (27) tak kak 3e vɨ palagai-t<sup>j</sup>e, kto ja PTCL how PTCL you(pl).NOM assume-2PL.PRES who.NOM I.NOM takoj, durak il<sup>j</sup>i n<sup>j</sup>igod<sup>j</sup>aj? such.M.NOM.SG fool.NOM.SG or villain.NOM.SG 'So finally who do you assume I am, a fool or a villain?'
- most important, *kak*-clause has prosodic autonomy. It has a clear-cut comma intonation and is surrounded by commas when written (unlike long movement that has only one comma separating two clases).

This shows why the IP approach fails for Russian. PM landscape of Russian is different and demands a substantially different analysis.

## 5 An Alternative

## 5.1 Proposal

I propose to treat PM-like thing in Russian as a full-fledged parenthetical to be analyzed as a conventional implicature in the spirit of (Potts 2002), (Potts 2005).

This parenthetical, along with appositives, expressives and As-parentheticals, falls into a larger class of supplements. It has been shown that these things require multi-dimensional semantics.

This semantics contains two dimensions: regular assertion, or at-issue content, and conventional implicature dimension. This latter does not belong to assertion and forms a separate class of meanings.

According to Potts, there are no lexical items that intrinsically belong to the CI realm. Rather there are items that shift certain meanings to this dimension. In this system it is achieved by Comma operator that takes an argument of an at-issue type and returns a CI type. So before meeting the Comma, semantics of a CI-carrying item (a parenthetical in this case) is computed via standard rules and then sent to the CI.

So, semantics of questions with a kak-parenthetical is as follows:

- ⇒ semantics of an at-issue question and a conventional implicature
- ⇒ 'The speaker wants to know the hearer's opinion about that question'.

### 5.2 Apparent PM Properties Solved

Certain properties of the Russian construction seem to confirm the PM hypothesis. I argue that there are ways to explain them without attributing it to the partial movement.

One of such properties is apparent badness with negation. However, such badness is by no means intrinsic to PMs. On the one hand, inability to interact with various operators such as negation is characteristic of CIs. On the other, parentheticals in general often avoid negation, so there is no need to postulate partial movement.

Another such property is locality. It is among crucial empirical predictions made by **any** PM approach. As mentioned earlier, there are two options to maintain adjacency of the *wh*-phrase and the scope marker in structures with three clauses: repeat the scope marker in the intermediate clause or move the *wh*-phrase further. Russian seems to obey locality ruling out non-adjacency and choosing to move the *wh*-phrase to the second clause:

- (28) \*[kak  $t^{j}$ ib $^{j}$ e kazitsa, [Pet $^{j}$ a duma-it, [ʃto ja how you.dat seem.3sg.pres Peter.nom think-3sg.pres what.acc I.nom kupl $^{j}$ -u]]]? buy.1sg.fut lit. '[How it seems to you [Peter thinks [what I will buy]]]?'
- (29) [kak t<sup>j</sup>ib<sup>j</sup>e kaʒitsa, [ fto Pet<sup>j</sup>a duma-it, [ ja kupl<sup>j</sup>-u]]]?
   lit. '[How it seems to you [what Peter thinks [I will buy]]]?'
   Intended in both cases: 'What does it seem to you that Peter thinks I will buy?'

The parenthetical approach does not exclude this configuration either. It predicts that a kak-clause attaches to the sentence with long movement yielding the meaning: 'What, according to your opinion, Peter thinks that I will buy?' This explains why in Russian (unlike other languages) island effects are exactly the same for long movement and for 'partial' movement'<sup>3</sup>.

## 5.3 Troublesome Properties Solved

Apart from being able to explain properties seemingly intrinsic to PM, this approach also solves things that are troublesome for the PM analysis.

 $<sup>^{3}(29)</sup>$  is ungrammatical since the structure with a wh-phrase in embedded clause taking scope higher is impossible due to the obligatory status of wh-fronting. In other words, the sentence is as ungrammatical without parenthetical and its addition can't improve anything.

First, a language is more likely to have lexical idiosyncrasies with parentheticals rather than with productive PM. It is true that partial movement might be restricted to certain predicates or more likely to natural classes but it should not be as limited as it seems to be in Russian.

Second, "relaxed" linear order w.r.t. the host clause is exactly what is expected from a typical parenthetical.

Third, CIs are scopeless and belong to root phenomena. It means that it is hard to embed them.

Fourth, impossibility of binding relations is, again, typical for CIs (quantifiers are remarkably bad in appositive constructions). It shows that kak-parentheticals in general are pretty much non-integrated.

And lastly, comma intonation is the most reliable way to identify parentheticals (plus other CIs such as appositives and expressives). English CI and non-CI As-parentheticals are distinguished on the basis of intonation and it is the comma operator that turns the clause into a CI.

### 5.4 Extra Empirical Support

In addition to the facts already listed there is more empirical support for the hypothesis.

First, most languages use 'what', not 'how', as a non-standard wh-expletive so what Russian does is non-standard. One might argue that languages differ with respect to which wh-phrase is default and underspecified. It is dubious if 'how' and not 'what' is underspecified in Russian. Regardless of that, kak is the most common way to introduce parentheticals (similar to English as) throughout the language:

(30)  $\operatorname{pujk}^{j}$ in, kak izv $^{j}$ esn-a, rost-am bil  $\operatorname{n}^{j}$ iv $^{j}$ il $^{j}$ ik Pushkin.NOM how known-NOM.SG height-INS be.3SG.PST small.M.SG 'Pushkin, as it is known, was of small height.' (Daniil Kharms)

Second, appositives in Russian are absolutely possible with second person subjects, similar to Why have you, fool, spent all the money?. However, appositives are ruled out in kak-clause. It follows naturally from the fact that CIs do not combine with each other.

#### 5.5 Puzzle

It should be noted that outside of interrogatives *kak*-parentheticals are not limited with respect to any particular predicates, subject, tense, or length, and could be very long. However in the case of questions it seems that CI-content should be "bleached", adding little to the very semantics of question. This maintains coherence and parallelism between the two dimensions, at-issue and CI.

It is not true that conventional implicature 'I want to know your opinion' adds nothing to the question about, say, who came. But questions in general ask about current (present tense) mental state (choice of predicates) of the hearer (second person subject), even though with a *kak*-parenthetical the assumption that the hearer might not have an exact answer to the question is spelled out. I am trying to say that if non-present tense and third person

subjects were allowed it would add significantly more information to the embedded question. This is what I am trying to accomplish by saying that the CI content should be "bleached".

### 6 Conclusions

In this paper I propose that there is no partial wh-movement in Russian. I present compelling arguments to this claim and show how exactly Russian does not pattern with other PM languages. It demonstrates once more that across languages, there is no such unified construction as partial movement. This phenomenon is subject to a deeper variation, and Russian provides evidence for that. This makes the typology of PM and similar looking phenomena even broader than discussed in (Lutz et al. 2000).

I also propose that Russian construction is a parenthetical, which nicely explains its unexpected properties and sheds some light on its semantics. Even though there is a puzzle as to why certain restrictions show up only in interrogatives as opposed to other sentences, this analysis looks very promising.

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