



Saint Petersburg State University  
Faculty of Philology

# Covert Across-the-Board Raising of Modals in Russian?

Daniel Tiskin

[daniel.tiskin@gmail.com](mailto:daniel.tiskin@gmail.com)

SLS 15

September 6, 2020



# What It's All About

- Raising-to-Subject often gives rise to optional reconstruction effects
  - (1) Together, this may mean that more than a million people can appear in Canada in the next three years. (Google)
- This is true of Russian as well (to the extent it has raising)
- The reason may be the movement of the modal (rather than “backward” movement of the DP)

## This paper:

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- in Russian, the modal can scope over a conjunction of modals
  - (2) Kto-to mozet soglasit'sja, a kto-to mozet posporit'.  
someone can agree but someone argue  
'It can be that someone agrees and someone (else) argues against'
- this suggests the availability of covert movement of modals (pace Bošković and Franks 2000; Meyer and Sauerland 2016)—but maybe we can do with more conservative techniques

# Outline

**1** Raising & Reconstruction

**2** Ambiguous Conjunctions

**3** The Survey

**4** Theoretical Options

# 1 · Raising & Reconstruction



# Raising & Reconstruction I

**Raising-to-Subject:** no  $\theta$ -role for subject DP, e.g. modals

**Semantic ambiguity:** surface scope vs. as if no raising happened

- (3) Seven civilians are likely to starve to death this weekend.
- a. 'There are 7 civilians s.t. it is **likely** that they will starve',  $7 > \diamond$
  - b. 'It is likely that some 7-set of civilians will starve',  $\diamond > 7$ ;  
cf.: [ [*be likely* [*seven civilians*] *to starve ...* ]]

ex.: Landau 2013

**In Russian**, best candidates for raising include constructions with modal verbs such as *moč'* 'can.inf, be able to', epistemic or deontic

- (4) Ètogo 1% nikto možet ne zametit'.                      Холодилова 2015  
this 1% ni.who can neg notice  
'It can so happen that no one will notice this 1%',  $\diamond > \neg > \exists$ ;  
*ni-* licensed by negation *ne* within its clause
- (5) Kto-nibud' možet opozdat'.                      Летучий и Виклова 2020  
who.nibud' can be.late  
'It can so happen that someone will be late';  $\exists > \diamond$  or  $\diamond > \exists$

# Raising & Reconstruction II

With  $\Box$ -type modals:

- (6) Ponjatno, čto otrasl' vošla v krizis, i mnogie dolžny  
clear that branch entered into crisis and many have to  
budut ujtj s rynka. (Google)  
will leave from market

'It is clear that the branch (of economy) has entered the crisis, and many will have to leave the market'

- a. 'We know now who that will be', many  $>$   $\Box$   
b. 'We shall see who that will be',  $\Box >$  many

## 2 · Ambiguous Conjunctions



# Ambiguous Conjunctions I

**New data:** cases involving simultaneously

- matrix-level clausal coordination
- a modal in the 1<sup>st</sup> conjunct, optionally repeated in the 2<sup>nd</sup>
- Quantificational matrix subjects

(2) Kto-to mo $\check{z}$ et soglasit'sja, a kto-to mo $\check{z}$ et posporit'.

**Observation:** two interpretations generally available, the surface reading '& > Q > modal' and the interesting reading 'modal > & > Q'. E.g. for (7): the cook herself can decide which part of the fruit to prepare in advance and which to smash raw,  $\diamond(\exists_{\text{part}} \dots \& \exists_{\text{part}} \dots)$

(7) D $\check{z}$ em prigotovljaetsja s dobavleniem saxara, pri $\check{c}$ em  $\check{c}$ ast' confiture is produced with addition of sugar whereas part fruktov mo $\check{z}$ et byt' razvarennoj ili prot $\check{e}$ rtoj, a  $\check{c}$ ast' cel'noj. of fruit can be cooked or grated and part uncut 'Confiture is produced with the addition of sugar, whereas part of the fruit can be cooked or grated (in advance) with the other part uncut' (RNC, 1999)



## Ambiguous Conjunctions II

Pragmatically preferred ‘modal > & > Q’ with other Qs and modals:

- (8) ...direktor... dolžen vybrat’ vosem’ dostojnejšix, iz kotoryx polovina  
rector must choose eight worthiest of which half  
možet byt’ na latinskom, a drugaia na russkom jazyke...  
can be in Latin and half in Russian language  
‘the rector must choose eight most distinguished (papers), of which  
one half can be in Latin and another half in Russian’ (RNC, 1755)

We do not know which papers will be which—none are produced yet.

- (9) No kto-to dolžen tvorit’, a kto-to obsluživat’ žizn’ i  
but someone must create and someone serve life and  
sozdavat’ uslovija.  
provide conditions  
‘But someone has to create, and someone has to serve the needs of  
life and provide decent conditions (for the creator)’ (RNC, 2005)

Here ‘& > Q > modal’ is also pragmatically felicitous.

# Ambiguous Conjunctions III

How do the interpretations arise?

$\& > Q > \text{modal}$  is surface scope, two  $Q$ s range over the same set taken from the actual world and are in contrast (cf. a 'and/but')

*kto-to dolžen tvorit'*, a *kto-to ~~dolžen~~ obsluživat'...*  
 $\exists x \quad \square(Cx) \quad \& \quad \exists y \quad \square(Sy)$

$\text{modal} > \& > Q$  as such allows for several analyses, e.g.

- raising of the leftmost embedded subject in violation of CSC—only in the absence of modal in the 2<sup>nd</sup> conjunct

*kto-to<sub>2</sub> dolžen* [[*~~kto-to<sub>2</sub>~~ tvorit'*], a [*kto-to obsluživat'...*]]

- Across-the-Board raising of the modal, then raising of the leftmost embedded subject in violation of CSC

*kto-to<sub>2</sub> dolžen<sub>1</sub>* [[*~~kto-to<sub>2</sub>~~ ~~dolžen<sub>1</sub>~~ tvorit'*], a [*kto-to ~~dolžen<sub>1</sub>~~ obsluživat'...*]]

- **covert** ATB raising of modal, then optional deletion in the 2<sup>nd</sup> conjunct

*dolžen<sub>1</sub>* [[*kto-to dolžen<sub>1</sub> tvorit'*], a [*kto-to dolžen<sub>1</sub> obsluživat'...*]]

## 3 · The Survey



## The Survey: Motivation

The solution without raising of the modal mandates that there be no instance of the modal in the second conjunct:

*kto-to<sub>2</sub> dolžen [[kto-to<sub>2</sub> tvorit'], a [kto-to obsluživat...]]*

However, sentences like (14) are also found:

- (10) Pri ètom čast' informacii dolžna byt' v otkrytom dostupe, a  
meanwhile part of.information has.to be in open access and  
čast' **dolžna** imet' ograničenija na dostup.  
part has.to have restrictions on access  
'At the same time, part of information has to be open access but  
another part has to have restricted access' (Google)

I ran a questionnaire to see if sentences like (10) allow for the reading 'modal > & > Q' just as well as (2).

# The Survey: Materials I

- 4 conditions: scenario + sentence to be evaluated (yes/no)
- 2 parameters of variation:
  - whether the scenario supports the stronger ' $Q > \& >$  modal' reading
  - whether there is a copy of the modal in the second conjunct
- 4 fillers (no modal)
- 90 subjects, mean age = 28.4,  $\bar{q} = 75$

Учитель английского говорит: «Ребята, сейчас за каждой партой тот, кто сидит слева, будет задавать вопросы, а тот, кто сидит справа, — отвечать». \*

Половина учеников должна задавать вопросы, а половина должна отвечать.

да

нет

'Half of the students have to ask questions, and half have to answer';  
the scenario does not support the stronger reading

## The Survey: Materials II

Supports the stronger reading ‘ $Q > \& > \text{modal}$ ’

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Lieutenant says: “Soldiers, today we are training how to surround a building. Ivanov, Petrov, Sidorov!—go left. Smirnov, Belov, Alekseev!—go right.”

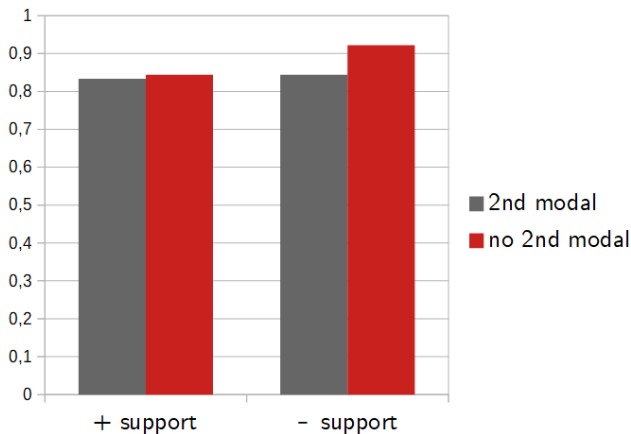
Does not support the stronger reading

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Lieutenant says: “Soldiers, today we are training how to surround a building. Three men go left. Three men go right.”

- (11) Tri soldata dolžny zajti sleva, a tri (dolžny) zajti sprava.  
‘3 soldiers must start from the left, and 3 (must) start from the right’

# The Survey: Results I



## The Survey: Results II

Scenario supports ' $Q > \& > \text{modal}$ '?	Copy of modal in the 2 <sup>nd</sup> conjunct?	
	yes	no
yes	0.83	0.84
no	0.84	0.92

Proportion of “can say” answers; for each cell,  $n = 90$ .

Although ‘modal  $> \& > Q$ ’ is not the surface scope reading, test sentences were shown to be highly acceptable even in the scenarios where this was the only reading possible.

In such scenarios, the presence/absence of the second modal does not make a significant difference ( $\chi^2, p \approx .1$ ).

Ergo...

we need an analysis involving the ATB movement of the modal; presence vs. absence of the second modal will be a matter of (c)overtness and deletion.



## 4 · Theoretical Options



# Theoretical Options

- Raising of the leftmost embedded subject in violation of CSC—only in the absence of modal in the 2<sup>nd</sup> conjunct (unreasonable given the survey)

*kto-to<sub>2</sub> dolžen* [[ ~~*kto-to<sub>2</sub>*~~ *tvorit'* ], a [ *kto-to* *obsluživat...* ]]

- Across-the-Board raising of the modal, then raising of the leftmost embedded subject in violation of CSC

*kto-to<sub>2</sub> dolžen<sub>1</sub>* [[ ~~*kto-to<sub>2</sub>*~~ ~~*dolžen<sub>1</sub>*~~ *tvorit'* ], a [ *kto-to* ~~*dolžen<sub>1</sub>*~~ *obsluživat...* ]]

- **Covert** ATB raising of modal, then optional deletion in the 2<sup>nd</sup> conjunct

*dolžen<sub>1</sub>* [[ *kto-to* *dolžen<sub>1</sub>* *tvorit'* ], a [ *kto-to* dolžen<sub>1</sub> *obsluživat...* ]]

## Overt ATB + asymmetrical raising? I

Meyer and Sauerland (2016): (12) can have the wide scope (= free choice) reading for the modal as (1) **the modal raises** Across-the-Board overtly (but the right copy is not deleted!) and then (2) **the left subject raises**:

(12) Jane may walk or she may run.

Jane<sub>2</sub> may<sub>1</sub> [[Jane<sub>2</sub> may<sub>1</sub> walk] or [Jane<sub>2</sub> may<sub>1</sub> run]]

This would mean that after the modal raises (and before the subject does), **our** cases are like (13), whose only reading is ' $\neg > \text{modal} > \& > \exists$ ':

(13) ne možete [odin čelovek prinimat' rešenija, a drugoj nesti za  
not can one person make decisions and another bear for  
nix odgovornost'].

them responsibility

'it cannot be that one person makes decisions and another bears responsibility for them' (Google)

Assuming Meyer and Sauerland's solution (and interpretation before subject movement), we get the weak reading ' $\text{modal} > \& > Q$ ':

**LF:** dolžen<sub>1</sub> [[kto-to<sub>2</sub> dolžen<sub>1</sub> tvorit'], a [kto-to dolžen<sub>1</sub> služivat'...]]

**PF:** kto-to<sub>2</sub> dolžen [[kto-to<sub>2</sub> tvorit'], a [kto-to služivat'...]]

## Overt ATB + asymmetrical raising? II

However, subject movement cannot be ATB!

- The subjects need not be literally identical, cf. (14) and (13):

(14) Polovina devojčak v klase dolžna byt' vyše 130 sm, a drugaja  
half of.girls in class have.to be taller 130 cm and another  
polovina dolžna byt' niže 130 sm.  
half have.to be smaller 130 cm

'Half of the girls in the class have to be taller than 130 cm, and the other half have to be smaller than 130 cm' (Google)

- The subjects are contrastive even when identical; assuming ATB here would mean that **contrasting** DPs can be parts of the same chain of movement (albeit covert movement and not hierarchically ordered parts)!

In (12), it cannot either (*Jane vs. she*); Meyer and Sauerland accept this, citing i.a. Johnson (2009), who treats (15) as an exception to CSC.

(12) Jane may walk or she may run.

(15) [Mrs. Smith]<sub>1</sub> can't [<sub>VP</sub> *t*<sub>1</sub> dance or Mr. Smith sing].

# Overt ATB + asymmetrical raising? III

## A Note on Contrast

Jasinskaja and Zeevat 2009: the distribution of Russian conjunctions *i* 'and', *a* 'and/but', *no* 'but' is governed by the number and type of *wh*-words in the QUD addressed by the sentence.

- (16) a. — What happened? single *wh*-  
Petja priexal, *i* v okno vletela ptica.  
'Petya came, and a bird flew in through the window'
- b. — Who did what? two *wh*-  
Petja priexal, *a* Vasja ušël za gribami.  
'Petya came, and Vasya went for mushrooms'

Given this, the presence of *a* in our examples reveals that the subjects, even if formally identical, are indeed contrasted (cf. a different view in Esipova 2015 regarding *inogda... inogda* etc.).

## Covert ATB?

Against covert ATB in general:

**Bošković and Franks 2000:** were there covert ATB movement, *what* could move out at LF, but in fact two *whats* try to move separately  $\Rightarrow$  \*

- (17)\*Who said [that John bought what] and [that Peter sold what]?  
Mary said that John bought, and Peter sold, a car; and Jane said that John bought, and Peter sold, a house.

And there would be a wide scope possibility for *every*, which is not:

- (18) Someone represented every candidate and nominated every candidate.

**Meyer and Sauerland 2016:** covert ATB predicts the absent 'OK >  $\vee$ ' for

- (19) It's OK to eat a burger or it's OK to eat a steak.

For covert ATB: (+ no CSC violation)

**Mayr and Schmitt 2017:** in Germanic, it may be needed to account for the fact that the only interpretation of sentences like (20) is 'fewer > &'

- (20) Leider [haben [weniger als drei meiner Bekannten]<sub>1</sub> einen Hund]  
und [können  $t_1$  mit Katzen umgehen].

'Unfortunately, fewer than three acquaintances of mine are such that they [both] have a dog and know how to deal with cats'

## One More Option

- The reading 'modal > & > Q' is equivalent to '& > modal > Q' for □-type modals (e.g. *dolžen* 'has to')
- So if in each conjunct the modal scopes over its subject, we get the interpretation in question

[ *dolžen*<sub>1</sub> [ *kto-to dolžen*<sub>1</sub>... ]], a [ *dolžen*<sub>2</sub> [ *kto-to dolžen*<sub>2</sub>... ]]

- The contrastive subjects are then embedded under different modals at LF, but the modals range over **the same set of possible worlds**, therefore the subjects quantify over the same set(s) of individuals and can contrast
  - Informally, the contrast works across modals like coreference works in Intentional Identity (Geach 1967), co-varying with the choice of a world
- (21) Hob thinks<sup>w</sup> that [*a<sub>w</sub> witch*]<sub>1</sub> has blighted Bob's mare, and Nob wonders whether she<sub>1</sub> killed Cob's sow.
- However, with ◇-type modals the reading 'modal > & > Q' will have to be viewed as pragmatic strengthening of the weaker '& > modal > Q', perhaps facilitated by contrast

(2) *Kto-to mozet soglasit'sja, a kto-to mozet posporit'.*

'It can be that someone agrees and someone (else) argues against'

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Supported by RSF project no. 19-78-10048.