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:

- in Russian, the modal can scope over a conjunction of modals
  (2) Kto-to možet soglasit’sja, a kto-to možet 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) Ėtogo 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 $\Diamond > \exists$
With □-type modals:

(6) Ponjatno, čto ostras' vošla v krizis, i mnogie dolžny clear that branch entered into crisis and many have to budut ujti 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 > □
b. ‘We shall see who that will be’, □ > many
2 · Ambiguous Conjunctions
Ambiguous Conjunctions I

New data: cases involving simultaneously
- matrix-level clausal coordination
- a modal in the 1st conjunct, optionally repeated in the 2nd
- Quantificational matrix subjects

(2) Kto-to možeš soglasit’sja, a kto-to može 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, (∃_part … & ∃_part …)

(7) Džem prigotovljajaetsja s dobavleniem saxara, pričem čast’ confiture is produced with addition of sugar whereas part fruktov može byt’ razvarennoj ili protërtoj, a čast’ 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)
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 byť’ na latinskom, a drugaja 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.
How do the interpretations arise?

\& > Q > modal is surface scope, two Qs range over the same set taken from the actual world and are in contrast (cf. a ‘and/but’)

\[ \exists x \quad \Box (C x) \quad \& \quad \exists y \quad \Box (S y) \]

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\textsuperscript{nd} conjunct

\[ kto-to \_2 \ dolžen \ [[kto-to \_2 \ tvorit’], \ a \ [kto-to \ obsluživat’...]] \]

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

\[ kto-to \_2 \ dolžen \_1 [[kto-to \_2 \ dolžen \_1 tvorit’], \ a \ [kto-to \ dolžen \_1 obsluživat’...]] \]

- covert ATB raising of modal, then optional deletion in the 2\textsuperscript{nd} conjunct

\[ dolžen \_1 [[kto-to dolžen \_1 tvorit’], \ a \ [kto-to dolžen \_1 obsluživat’...]] \]
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:

\[ \text{kto-to}_2 \ \text{dolžen} \ [\ [\text{kto-te}_2 \ \text{tvorit’} \], \ a \ [\ \text{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, \(\varphi = 75\)

‘Half of the students have to ask questions, and half have to answer’; the scenario does not support the stronger reading
Lieutenant says: “Soldiers, today we are training how to surround a building. Ivanov, Petrov, Sidorov!—go left. Smirnov, Belov, Alekseev!—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 diagram shows the results of a survey with a bar chart. The x-axis represents support (+ support and - support) and the y-axis represents the percentage of responses.

- **2nd modal**: Grey bars represent responses that include the 2nd modal.
- **no 2nd modal**: Red bars represent responses that do not include the 2nd modal.

The chart indicates a higher percentage of responses without the 2nd modal in both support conditions.
The Survey: Results II

<table>
<thead>
<tr>
<th>Scenario supports '( Q &gt; &amp; &gt; \text{modal} )'?</th>
<th>Copy of modal in the 2(^{\text{nd}}) conjunct?</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>yes</td>
<td>yes</td>
<td>0.83</td>
</tr>
<tr>
<td>no</td>
<td>no</td>
<td>0.84</td>
</tr>
</tbody>
</table>

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\textsuperscript{nd} conjunct (unreasonable given the survey)

  \[ \textit{kto-to}_2 \textit{dolžen} \ [ [ \textit{kto-to}_2 \textit{tvorit'}], \textit{a} [ \textit{kto-to obsluživat...} ] \]

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

  \[ \textit{kto-to}_2 \textit{dolžen}_1 \ [ [ \textit{kto-to}_2 \textit{dolžen}_1 \textit{tvorit'}], \textit{a} [ \textit{kto-to dolžen}_1 \textit{obsluživat...} ] \]

- Covert ATB raising of modal, then optional deletion in the 2\textsuperscript{nd} conjunct

  \[ \textit{dolžen}_1 \ [ [ \textit{kto-to dolžen}_1 \textit{tvorit'}], \textit{a} [ \textit{kto-to dolžen}_1 \textit{obsluživat...} ] \]
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.
   Jane₂ may₁ [[Jane₂ may₁ walk] or [Jane₂ may₁ run]]

This would mean that after the modal raises (and before the subject does), our cases are like (13), whose only reading is ‘¬ > modal > & > ∃’:

(13) ne možet [ odin čelovek primit’ rešenija, a drugoj nesti za not can one person make decisions and another bear for nix otvetstvenost’ ].
   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 ‘modal > & > Q’:

**LF:** dolžen₁ [[kto-to₂ dolžen₁ tvorit’], a [kto-to dolžen₁ obsluživat’…]]
**PF:** kto-to₂ dolžen [[kto-to₂ tvorit’], a [kto-to obsluživat…]]
Overt ATB + asymmetrical raising? II

However, subject movement cannot be ATB!

- The subjects need not be literally identical, cf. (14) and (13):
  
  (14) Polovina devoček v klasse 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]₁ can’t [VP t₁ 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?

Petja priexal, *i* v okno vletela ptica.
‘Petya came, and a bird flew in through the window’

b. — Who did what?

Petja priexal, *a* Vasja ušēl 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 ⇒ *

(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 > ∨’ 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] einen Hund] und [können t₁ 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 $\Box$-type modals (e.g. dolžen ‘has to’)

- So if in each conjunct the modal scopes over its subject, we get the interpretation in question

$$[dolžen_1 [kto-to dolžen_1 ...]],\ a\ [dolžen_2 [kto-to dolžen_2 ...]]$$

- 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$^w$ that $[a_w$ witch]$_1$ has blighted Bob’s mare, and Nob wonders whether she$_1$ killed Cob’s sow.

- However, with $\Diamond$-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 možet soglasit’sja, a kto-to možet posporit’.

‘It can be that someone agrees and someone (else) argues against’
References


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