

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

Raising-to-Subject is known to give rise to reconstruction effects w.r.t. interpretation, but they are optional. This paper uses Russian data to show that in this language the modal can have wide scope—i.e. as if the subject did reconstruct—not only over the quantified subject but also over a conjunction into which the modal itself is embedded, provided the same modal is used in both conjuncts; moreover, this does not depend in a crucial way on whether the modal is omitted in the second conjunct or not. This suggests that covert across-the-board movement of modals is possible, despite the criticisms in Bošković and Franks (2000), Meyer and Sauerland (2016).

Background. Raising-to-Subject, e.g. in English, is known to give rise to semantic ambiguity:

- (1) Seven civilians are likely to starve to death this weekend. (Landau 2013)
- a. ‘There are seven civilians s.t. it is likely (\diamond) that they will starve’ $7 > \diamond$
- b. ‘It is likely that some seven-member set of civilians (or other) will starve’ $\diamond > 7$

For Russian, the exact range of raising constructions is debatable but among those closest to the prototype one finds constructions with modal verbs such as *moč* ‘can.INF, be able to’ used in epistemic or deontic sense (Холодилова 2015, (2); Летучий и Виклова 2020, (3)). E.g. negative concord *ni-* and indefinite *nibud*’ in subject position can be licensed by the modal:

- (2) Ètogo 1 % nikto možet ne zametit’.
 this 1 % NI.who can NEG notice
 ‘It can so happen that no one will notice this 1 %’ *ni-* licensed by *ne*, $\diamond > \neg > \exists$

- (3) Kto-nibud’ možet opozdat’.
 who.NIBUD’ can be.late
 ‘It can so happen that someone (or other) will be late’ $\exists > \diamond$ or $\diamond > \exists$

Ambiguities like (1) are also available with necessity-type modals; e.g. (4) can mean either that it is not yet determined which companies will have to leave the market ($\square > \exists_{\text{many}}$) or that it is:

- (4) Ponjatno, čto otrasl’ vošla v krizis, i mnogie dolžny budut ujt’ s rynka.
 clear that branch entered into crisis and many have.to will leave from market
 ‘Clearly, the branch (of economy) entered the crisis, many will have to leave the market’

Conjunctions and ambiguity. This paper deals with the cases like (5)–(7) where (a) there is matrix-level conjunction of clauses, (b) the first conjunct contains an occurrence of the modal and the second does so optionally, whereas (c) the matrix subjects are quantificational (*Q*).

- (5) Džem prigotovljaetsja s dobavleniem saxara, pričëm čast’ fruktov možet byt’
 confiture is.produced with addition of.sugar whereas part of.fruit can be
 razvarennoj ili protërtoj, a čast’ cel’noj.
 cooked or grated and part uncut
 ‘Confiture is produced with the addition of sugar, and part of the fruit can be cooked or
 grated (in advance) with the other part uncut’ (Russian National Corpus, 1999)
- (6) ...direktor... dolžen vybrat’ vosem’ dostojnejšix, iz kotoryx polovina možet byt’ na
 rector must choose eight worthiest of which half can be in
 latinskom, a drugaja na russkom jazyke...
 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’ (same corpus, 1755)
- (7) No kto-to dolžen tvorit’, a kto-to obsluživat’ žizn’ i sozdavat’ uslovija.
 but someone must create and someone serve life and provide conditions
 ‘But someone has to create, and someone has to serve the needs of (everyday) life and
 provide decent conditions (for the creator)’ (same corpus, 2005)

I make two key empirical observations. **First**, in general two interpretations are available for such cases, i.e. the surface reading ‘& > Q > modal’ and the theoretically interesting reading ‘modal > & > Q’. In particular, the intended meaning of (5) is that the cook herself can decide which part of the fruit to prepare in advance and which to smash raw: $\diamond(\exists_{\text{part}} \dots \& \exists_{\text{part}} \dots)$. Likewise, (6) allows one half of winning papers—whichever those are—to be in Latin and the other half in Russian, $\diamond(\exists_{\text{half}} \dots \& \exists_{\text{half}} \dots)$, and the surface reading $(\exists_{\text{half}} \diamond \dots) \& (\exists_{\text{half}} \diamond \dots)$ is unavailable because the papers do not yet exist. In (7), both the surface ‘& > \exists > \square ’ and the unexpected ‘ \square > & > \exists ’ are possible interpretations.

Second, the availability of the problematic wide-scope-of-modal reading does not crucially depend on the occurrence of the modal in the second conjunct being omitted. In an online survey with 90 subjects, I found that in scenarios where only that reading is true, e.g. if the teacher allows the kids to decide, both versions of sentences like (8) are highly acceptable (mean_{omit} = .92, mean_{present} = .84) and the difference barely reaches statistical significance ($\chi^2, p \approx .1$).

- (8) Polovina učenikov dolžna zadavat’ voprosy, a polovina (dolžna) otvečat’.
 half of.students must ask questions and half must answer
 ‘Half of the students will have to ask questions and half (will have to) to answer them’

Directions for analysis. I compare the following potential ways to analyse (5)–(7).

ATB plus asymmetrical subject raising. Meyer and Sauerland (2016) argue that English examples like (9) can have the wide scope (= free choice) reading for the modal in virtue of the modal raising across-the-board overtly with the subsequent (asymmetrical) raising of the first subject and without the deletion of the rightmost copy of the raised modal:

- (9) Jane may walk or she may run. = Jane₂ may₁ [[Jane₂ may₁ walk] or [Jane₂ may₁ run]]

Applying this analysis to Russian would amount to saying that after the modal raises, (5)–(7) are akin to (10), where *možet* cannot be repeated in the second conjunct and whose only reading is ‘ $\neg > \diamond > \& > \exists$ ’, but with the closest subject moved to Spec of the raised modal.

- (10) ne možet odin čelovek prinimat’ rešenija, a drugoj nesti za nix otvetstvennost’.
 not can one person make decisions and another bear for them responsibility
 ‘it cannot be that one person decides and another bears responsibility for decisions’

However, in (5)–(7) the subjects are not only non-coreferential but also contrasting, so that it is not possible to view the right subject and the surface position of the left subject as members of the same chain of movement, as would be suggested by (9). The presence of contrastive topics is detectable given the use of *a* instead of *i* (Jasinskaja and Zeevat 2009), and it also serves as evidence against the construal on which the modal in each conjunct takes scope over that conjunct—i.e. $(\diamond \exists_{\text{part}} \dots) \& (\diamond \exists_{\text{part}} \dots)$ for (5): in that case the quantifiers could range over domains of different worlds selected by the two \diamond ’s, removing the basis for contrast.

Covert Across-the-Board raising of modal. The option not prone to the criticisms above (although criticised on different grounds in Bošković and Franks 2000; Meyer and Sauerland 2016) is covert *ATB raising* of the modal to the position where it can scope over both subjects plus gapping of the verb in the second conjunct:

- (5’) ...možet₁ [[čast’ fruktov možet₁ byt’ ...], a [čast’ možet₁ byt’ cel’noj]]

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