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## On the structure of Russian relative clauses: connectivity effects and their diachronic source

It is well known that in Slavic languages, historical evolution of relative constructions (RCs) is rather uniform: the distribution of relative clauses with an internal nucleus, e.g. correlative structures, gets more restricted and gives rise to modern constructions with the external nucleus. In particular, Russian (like other languages of the area) developed an externally headed relative construction with the postnominal relative clause containing a relative pronoun *kotoryj*, which clearly corresponds to the interrogative pronoun of the earlier correlative structure.

It may seem that this new relativization strategy is no longer connected to its diachronic source. Thus, Russian correlative constructions and postnominal externally headed relative constructions differ as to their interpretation (maximalizing vs. restrictive/appositive, Grosu&Landman 1998), available determiners (demonstrative pronouns / universal quantifiers vs. any determination) as well as to their distribution across various discourse traditions and genres (oral vs. written speech, low vs. high style). However, we argue that the postnominal externally headed relative construction with *kotoryj* still retains some vestiges of its origin. Specifically, we argue that it manifests a significant number of connectivity effects (Bianchi 2002), which provide us with evidence that Russian externally headed RCs are synchronically derived from configurations with the internal nucleus. Connectivity effects are morphosyntactic, selectional and interpretational effects that can only (or more naturally) be explained if we admit that the relative "head" first merges in the relativization site. In this paper, we discuss only a subset of them that are characteristic of restrictive relative clauses with *kotoryj*:

- (i) idiom relativization: the relative head can form an idiomatic expression with the internal material of the relative clause (1) (cf. Vergnaud 1974);
- (ii) anaphor binding: the anaphoric expressions within the relative head are bound by the relative clause internal subject (2) (cf. Schachter 1973, Sauerland 1998);
- (iii) scope: adjectival operators like *edinstvennyj* 'only', *poslednij* 'last', *sledujuschij* 'next', ordinal numerals and superlatives can have a "low" reading (3) (cf. Bhatt 2002).

We believe that this evidence strongly suggests that the relative head in Russian restrictive RCs merges internally to the relative clause and thus supports a raising analysis of externally headed RCs with *kotoryj*. Interestingly, Russian RCs with interrogative pronouns (*kto* 'who', *čto* 'what'), which can modify not only pronominal, but also nominal heads, never exhibit any connectivity effects. This difference between *kotoryj* and *kto* / *čto* RCs is consistent with their distribution at earlier stages of diachronic development: *kotoryj* is a D head embedding an NP, whereas *kto* / *čto* are DP proforms.

In the rest of the paper, we develop a raising analysis for Russian restrictive RCs with *kotoryj* that builds on and extends Vergnaud's (1974), Kayne's (1994), Bianchi's (1999, 2000), de Vries' (2002) and Bhatt's (2002) analyses of English/French relative clauses but in addition solves the problem of the raising position. Previous analyses either involve projecting movement (Vergnaud 1974) or produce an antiintuitive constituent structure (Kayne 1994); alternatively, an *ad hoc* functional projection XP is introduced into the structure which serves as a target of *wh*-movement ((4a), Bianchi 2000) or of a subsequent NP-head extraction ((4b), Bhatt 2002). In our analysis we take two steps. First, we provide evidence that in Russian, the restrictive relative clause is a syntactic argument of

the determiner (possibly silent). Secondly, we propose that the determiner projects a Larsonian structure (Larson 2004) and the lower D takes the relative CP as its complement (5a). This provides us with an extra argumental position (Spec, DP) that can serve as a target for NP extraction out of the relative CP (5b).

## Examples

(1) a. Gončarenko vozmuščalsja svin'ej, kotoruju podložila G.NOM be.annoyed.PST pig.INSTR which.ACC under.put.PST Selenina.

S.

'Goncharenko was annoyed by the dirty trick Selenina played (upon him) (lit. by the pig Selenina put (under him))'. (Russian National Corpus)

b. #Gončarenko vozmuščalsja svin'ej. G.NOM be.annoyed.PST pig.INSTR

'Goncharenko was annoyed by the pig.'

(2) a. OKSvedenija o sebe<sub>i</sub>, kotorye kandidaty<sub>i</sub> information.NOM about self.PREP which.ACC candidates.NOM

predstavili v komissiju, byli nepolny. submit.PST in committee COP incomplete

lit. 'Information about themselves that the candidates submitted to the committee was incomplete.'

- b. \*Svedenija kandidatax. kotorve oni, candidates.PREP information.NOM about which.ACC they predstavili komissiiu. byli nepolny. submit.PST in committee **COP** incomplete
- c. \*Svedenija o nix<sub>i</sub>, kotorye kandidaty<sub>i</sub> predstavili information.NOM about they.PREP which.ACC candidates submit.PST

v komissiju, byli nepolny.<sup>1</sup> in committee COP incomplete

(3) Eto edinstvennaja kniga, kotoruju Petja skazal, čto dočital do this single book which P.NOM say.PST that read.PST to

kontsa.

end.GEN

high reading: 'This is the only book such that Peter said: "I read it to completion".' low reading: 'This is the book such that Peter said: "It is the only book that I read to completion".'

<sup>&</sup>lt;sup>1</sup> Grammaticality judgments only concern restrictive interpretation.

- (4) a. [ $_{DP}$  the [ $_{CP}$  [ $_{NP}$  picture] C [ $_{XP}$  [ $_{DP}$  which  $t_{NP}$  ] $_i$  X [ $_{IP}$  Bill liked  $t_i$  ]]]]] (ex. 15 from Bianchi 2000)
  - b. [ $_{DP}$  the [ $_{XP}$  [ $_{NP}$  picture] X [ $_{CP}$  [ $_{DP}$  which  $t_{NP}$  ] $_{i}$  C [ $_{IP}$  Bill liked  $t_{i}$  ]]]]] (ex. 39 from Bhatt 2005)
- (5) a.  $\left[ \int_{\mathbb{R}^p} d \left[ \int_{\mathbb{R}^p} \operatorname{Spec} \left[ \int_{\mathbb{R}^p} D \right] \right] d \right]$ 
  - b.  $[_{dP}$  (ta<sub>D</sub>)  $[_{DP}$  [<sub>NP</sub> fotografija]  $t_D$  [<sub>CP</sub>  $[_{DP}$  kotoruju  $t_{NP}$ ] C  $[_{IP}$  on ljubit  $t_i$ ]]]]] the picture which he likes

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