Intersectivity at the interface: the syntax and semantics of Russian adjectives

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A problem of form and function

- Russian adjectives can (sometimes) appear in **short** and **long** forms
  - krasiv ‘beautiful’
  - krasivyj ‘beautiful’

- These forms have been argued to correspond to semantic differences:
  - stage-level vs. individual-level (Švedova et al. 1980)
  - states vs. properties (Geist 2010)
  - intersective vs. non-intersective (Siegel 1976)
The intersective ambiguity

• Siegel (1976) argues **short-form (SF) adjectives** are intersective:
  (1) Studentka *umnna*
  ‘The student is intelligent’ = intelligent in general, absolute terms

• ...while **long-form (LF) adjectives** are uniformly non-intersective:
  (2) Studentka *umnaja*
  ‘The student is intelligent’ = intelligent in her role as a student

• But this is based on a very small amount of data: “I asked an **informant** about [these sentences]”
The intersective ambiguity

• Instead, Larson (1999) argues LFs are ambiguous:
  (3) krasivyj tancor
  ‘beautiful dancer’ = one who dances beautifully (non-intersective) OR
  a dancer who is beautiful (intersective)

• This claim is highly influential in the adjective syntax literature, e.g., in
  motivating some of Cinque’s (2010) conclusions

• But again: “I have gathered preliminary data from one Russian
  speaker... an undergraduate student working in USB Linguistics Dept.”
Expanding the data

• We gathered data from **75 Russian speakers** via an online form

• 48 questions
  • 4 nouns per adjective
  • 2 scenarios per adjective-noun pair

• Participants read a scenario setting up an intersective or non-intersective reading, then choose any of three sentences that are appropriate to describe that scenario
Expanding the data: sample question

• Scenario (non-intersective): Vasyok is a very skilled thief who can break into any location, and is morally a terrible person.

  - Étot vor xoroshij
    ‘This thief is good.LF’

  - Vasyok xoroshij vor
    ‘Vasyok is a good.LF thief’

  - Étot vor xorosh
    ‘This thief is good.SF’
Expanding the data: sample question

• Scenario (intersective): Pavlik is a thief who isn’t particularly skilled, but he uses the money he steals for good causes, like feeding orphanages, and so is a morally good person.

- Étot vor xoroshij
  ‘This thief is good.LF’

- Pavlik xoroshij vor
  ‘Vasyok is a good.LF thief’

- Étot vor xorosh
  ‘This thief is good.SF’
Non-intersective alternations

• Complicating the picture, the non-intersective reading also breaks down into two different readings:

(4) Sonya is a beautiful dancer.
   -> IR: ‘Sonya is a dancer and physically beautiful’
   -> event-related NIR: ‘Sonya dances beautifully’
   -> scale-related NIR: ‘Sonya is physically beautiful for a dancer’

• So, nouns were split between setting up event or scale NIR readings
Questions and data are available here:

bit.ly/fasl30adjectives
Results: wide variation across adjectives

- Some are compatible with only one reading
- Some have their reading fully determined by syntactic position
- None have their reading fully determined by long/short form
- Some have long/short morphological form and syntactic position interact to determine the reading!
krasivaya 'beautiful' + pevica 'singer'
krasivaya 'beautiful' + tur'ma 'prison'

- LF + attributive
- LF + predicative
- SF + predicative

Non-intersective reading
Intersective reading
bystraya 'fast' + ulitka 'snail'

- LF + attributive
- LF + predicative
- SF + predicative

Non-intersective reading
Intersective reading
znamenityj 'famous' + xudozhnik 'painter'
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Background analysis

• Maienborn (2020) argues for an account of the intersective ambiguity that is purely pragmatic and post-compositional

• Adjectives contain underspecified trope variables (Moltmann 2007) denoting a property, of which their individual argument is the bearer

• \[[\text{beautiful}]\] = \(\lambda y_{\text{ENTITY}} \left[ \text{bearer}(r_{\text{TROPE}}, y) \& \text{beautiful}(r) \right] \)
Background analysis

- Resolution of this trope variable to a specific value occurs at the semantics-pragmatics interface.

- The trope variable is never compositionally active.

- Pragmatic principles guide this specification process: ‘Free variables are instantiated preferentially by linguistically introduced material’ (Maienborn 2020: 78)
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Beautiful-type adjectives

• Pattern:
  • Only the intersective reading, in all positions (dancer who is physically beautiful, *one who dances beautifully)

• Easy to handle in the Maienborn analysis
  • Analogous to German schön, which shows the same pattern
    • $[[\text{beautiful}]] = \lambda y_{\text{ENTITY}} \text{[bearer}(r_{\text{TROPE}}, y) \& \text{beautiful}(r)]$
    • $[[\text{krasiv}(yj)]] = [[\text{schön}]] = \lambda y_{\text{ENTITY}} \text{[bearer}(r_{\text{SENSORY-TROPE}}, y) \& \text{beautiful}(r)]$
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Fast-type adjectives

• The pattern:
  • Only allows non-intersective reading, in all positions (swimmer who is fast at swimming, *swimmer who is fast at running)

• Surprisingly more difficult!
  • What kind of lexical specification can the trope property be given to rule out the intersective interpretation?
  • It would have to be $r_{\text{SWIMMING}}$, but that’s obviously not part of fast

• Possibly just a pragmatic, processing, clarity story
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Good/bad-type adjectives

• The pattern:
  • Attributive LFs: only non-intersective (good at thieving)
  • Predicate LFs: only intersective (morally good)
  • Predicate SFs: only non-intersective (good at thieving)

• These are the core problem for Maienborn’s analysis: how can pragmatic, post-compositional specification be made sensitive to this kind of morphosyntactic paradigm?
Capturing Attributive LFs and Predicate SFs

• No obvious pragmatic way to cross-cut this; most current syntactic analyses don’t suggest one either (e.g., Geist 2010, Babby 2010)

• But we can find it in Borik’s (2014) analysis of argument structure

• Core claims (on the basis of argument realization + case data):
  • SFs are fundamentally verbal, and syntactically select for their argument
  • LFs in predicate position are categorically adjectival, and therefore don’t have the obligatory syntactic argument structure
  • LFs in attributive position are covertly SFs with the LF suffix inserted for case reasons, and DO have internal verbal structure and therefore select for a syntactic argument
• For our purposes: conclusions about verbal vs. adjectival structure, etc. are irrelevant – only the differences in obligatory syntactic argument structure
Unifying the analyses

• The resolution process for unspecified trope variables needs to be made sensitive to syntax: if the adjective selects a noun as a syntactic argument, that noun is used to specify the adjective’s trope variable.

• Because attributive LFs and predicate SFs syntactically select the noun as their argument, this forces the non-intersective reading (which is noun-relative)

• Predicate LFs, instead, can resolve their trope variable pragmatically to some contextually-supported value
  • Competition with obligatorily non-intersective predicate SFs blocks pragmatic resolution to the same value as the noun -> predicate LFs are obligatorily intersective
Derivation of predicate SF adjective + noun

\[ \lambda P \lambda x \lambda s [s : [P(x)]] \lambda y [\text{bearer}(r,y) \& \text{good}(r)] \]
Derivation of predicate LF adjective + noun
Derivation of attributive LF adjective + noun
Remaining questions

• How many possible adjective paradigms are there?

• What is the nature of the syntactic operation that constraints interpretation (of tropes, or any other notational system you use)?

• How do these generalizations hold up across other Slavic languages?
Conclusions

• Widespread variation in (non-)intersective interpretations of Russian adjectives which can’t be reduced to long vs. short form
  • Highlights the importance of robust data collection!

• A puzzle for syntactic accounts of Russian adjectives: semantic interpretation groups attributive-LFs and predicate-SFs, unexpected from the perspective of morphosyntax
  • Any successful syntactic account should be able to predict this!

• Contemporary pragmatic theories of the intersective ambiguity need to allow sensitivity to morphosyntax, and therefore be compositional
  • Data from Slavic languages will be a critical testing ground for such theories!
References


• Borik, Olga. 2014. The argument structure of long and short form adjectives and participles in Russian. *Lingua* 149. 139-165.


