

Specificity as referential anchoring in Russian: shifting speakers and Hamblin sets.

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The problem

- Russian indefinite pronoun series built from bare *wh*-roots pose a challenge for semantic theories (Haspelmath 1997, Yanovich 2005, Geist 2008, a.o.)
 - Geist 2008: Russian specific indefinite markers *koe-* + *wh* root
 - $[[koe]] = \lambda P f_{\text{speaker}}(P)$
 - where *f* is "a contextually salient partial function from individuals into choice functions"
 - "*koe* strongly indicates the identifiability of the referent by the speaker."
- (1) *Chto nuzhno delat'?* - ... *Kapital'nyj remont...* *koe-kakie tam peregorodki ubrat'.* - *Kakie?..*
What.N¹ needed to.do? - ... Major renovation... *koe-what*.Adj there partitions to.remove. - What.Adj?
'What needs to be done? - ...Major renovations... certain partitions need to be removed. - Which ones?'
a. - *Nesushchie.* (actual conversation, RNC) b. - *##Ne znaju.*
Weight.bearing Not know
'Weight-bearing ones' 'I don't know'
- "some contextually salient relationship" is too weak to ensure that the chosen referent is identifiable to the speaker (Yanovich 2005):
 - the context may supply the function that picks the object that the speaker hates the most, etc.
 - we need the particular epistemic relationship to be built into the choice of the choice function:
 - *f* is a partial function mapping individuals to choice functions that select objects identifiable to those individuals.
 - Several apparent counter-examples from the RNC.
 - **Shifting:**
 - The speaker can felicitously (and grammatically) follow the *koe*-indefinite in (2, RNC) with professions of his or her ignorance about the identity of the stars; in fact, subsequent context makes it clear that the author is not sure about the identity of the stars or the veracity of Fukidid.
- (2) *Podlinnyj tekst Fukidida... mozhbet byt' ponjat tol'ko tak, chto... pojavilis' koe-kakie zvezdy.*
Authentic text of Fukidid may be understood only so that appeared *koe-what* stars
"Fukidid's authentic text can only be understood to say that there appeared certain stars."
- The speaker parameter can shift to the attitude holder (Fukidid, in (2))
 - exactly what Geist argues against by citing (3a).
 - But a verb of saying improves matters (3b). In (3b) it is clear that neither the narrator, nor the father have any idea about the kind or identity of the affairs, though the son does.
- (3)a. *Igor' hochet zhenit'sja na koe-kakoj studentke.* *##Ja ne znaju, na kakoj.*
Igor wants to.marry on *koe-what* student.fem. I not know on what
"Igor wants to marry a certain student. #I don't know which one"
- b. *On zval syna s soboj, no tot skazal, chto emu nuzhno uladit' koe-kakie dela.* (*Fazil' Iskander*)
He invited son with self, but that said that to.him needed to.straighten *koe-what* affairs.
"He invited his son to come along, but the son said that he needs to take care of certain affairs."

1 Russian has two different words for the noun and adjective versions of *what*: *chto* "what.Noun" and *kakoj* "what.Adj"

- This perspective shift is possible in contexts other than quotative ones (4, RNC), similar to free indirect discourse (5, altered from RNC).
 - The speaker of (4a) can be questioned about the identity of the *koe*-marked offices, and felicitously claim ignorance (4b, my example), though the wanderer must know.
 - Similarly, in (5) it is the caller, not the narrator, who must know the ambiguities in the case.

(4) a. *On odinoko slonjalsja po pustym koridoram, rassmatrival tysjachu raz vidennye plakaty,*
 He lonely.adv wandered along empty corridors examined thousand times seen posters
iz interesa zashel v zhen'skij tualet, potolkalsja v dveri koe-kakih kabinetov
 from interest entered in women's bathroom dist.pushed in doors koe-what offices
 "He wandered solitarily along empty corridors, examined posters seen a thousand times before, for curiosity's sake entered a women's bathroom, tried the doors of certain offices"

(4) b. *V kakie imenno kabiny on pytalsja zajti? - Ponjatija ne imeju, ego i sprashivajte!*
 In what exactly offices he tried to enter Notion not have him and ask
 "Which offices exactly did he try to enter? - I have no idea, ask him!"

(5) *On podosel k telefonu i vyzval Berlin... V dele, kotoroe budet na dnjab slushat'sja, est' koe-kakie*
 He approached to phone and called Berlin... In case, which will be on days to.hear.sja exist koe-what.Adj
nejasnosti, ... no chasto upominaetsja familija odnogo izolirovannogo. Tak vot, ne mozhet li on
 ambiguities but often mentions.sja last.name of.one prisoner. So here not could Q he
poznakomit'sja s delom etogo chesbskogo zurnalista (on nazval kogo imenno)? (Jurij Dombrovskij.)
 to.acquaint.sja with case of.this Czech journalist (he named who exactly)?

'He came to the phone and called Berlin... In the case, which will be heard shortly, there are certain ambiguities... but one prisoner's last name is mentioned often. So, could he familiarise himself with the case of this Czech journalist (he named who exactly)?'

• Identifiable kinds

- RNC has a number of examples, in which no discernable individual can identify the object
- In every case, however, the *koe*-NP receives a kind reading (6, RNC), where the speaker (6a,b) or the embedded speaker (6c) is understood to know the kind of referent involved.

(6) a. *Ja postaralsja dobit'sja ot moego gostja ne odnih formal'nyh otvetov, a koe-kakih harakteristik.*
 I tried to.get from my guest not solely formal answers but koe-what descriptions
 "I tried to get out of my guest not the purely formal answers, but some kind of descriptions."

b. *V konce koncov, udalos' dobit'sja koe-kakogo konsensusa.*
 At end of.ends succeeded.imp to.get koe-what consensus
 "Finally, [we] succeeded in achieving some kind of consensus"

c. *Pri poslednej vstreche Valiev skazal brat'jam, chto, vozmozhno, koe-kakoj zarobotok podvernetsja,*
 At last meeting Valiev told brothers that possibly koe-what.Adj earnings turn.up,
no tverdyh obeshchanij davat' ne stal. (Andrej Troickij)
 but firm promises to.give not did

'At the last meeting Valiev told the brothers that, perhaps, some kind of earnings will turn up, but did not give firm commitments.'

Preview & motivation of the proposal

- I propose a Hamblin semantics for *koe*-indefinites (cf. Kratzer and Shimoyama 2002), based on joint work with Chung-chieh Shan, which takes into consideration an inherent ambiguity of the adjectival *what* in Russian between an individual- and a kind-level reading.
 - That is, when combining with individual-level *kakoj*-N', the function given by *koe* ends up choosing from a set of individuals (1-5).
 - This makes the contribution of *kakoj* seem semantically vacuous, as Yanovich (2008) points out

- He proposes $\llbracket kəkoj \rrbracket = \{P_{(ct)} \mid \exists x: P(x) \ \& \ (\neg \exists y: P(y) \ \& \ x \neq y)\}$ (the set of identifying properties); since many properties cannot be decided to be identifying without context, his denotation seems to involve semantic D-linking.
- However, it is not clear to me that every individual-level use of *kəkoj* involves D-linking
 - In our proposal, *kəkoj* is not fully vacuous – it contributes to the semantic computation a denotation specially structured to give rise to alternatives during further composition.
 - Like Yanovich’s (2008) proposal, this denotation gives rise to choice among individuals, but without any built-in contextual dependence.
- As an adjective, *kəkoj* may also involve a set of sub-properties or, given the intimate relationship between properties and kinds (cf. Chierchia 1998), a set of subkinds of N’ with which it combines - in this case, *kəe* selects a kind (6).
 - This corresponds to the second *kəkoj* in Yanovich 2008, denoting a set of regular properties.
 - As in Yanovich’s proposal, this second denotation gives rise to choice among properties/kinds.
- I suggest that the speaker parameter in the choice-function denoted by *kəe* is susceptible to a kind of intra-sentential context shifting
 - where shifted *kəe* represents instances of partial quotation,
 - like the exocentric uses of expressives (Potts 2003, Anand 2007).
 - In (7 Hindi free indirect discourse, from Anand 2007), multiple speakers (judges) are responsible for the formal markers:
 - the speaker is the holder of honorific emotion towards the addressee (formal *you*), while Apu, the shifted judge, holds such emotion towards the son (formal genitive marker).
 - This suggests that contexts signalled as instances of partial quotation, such as FID, license shifted reference to quoted judges.

(7) *Aaj aap-ke beta ghar par hain, Apu-ne kal sochaa.*
 today **you.formal-gen.formal** son house at are Apu-erg yesterday think.perf
 ‘Your son [who Apu honors] was at home today, Apu thought yesterday; I honor you.’

The proposal, formally

Analysis along these lines fits perfectly with the Hamblin semantics for other Russian indefinite markers given in Yanovich 2005, and permits us to account for the full range of *kəe*- indefinites.

- Chung-chieh Shan and I propose a modified version of the Hamblin Function Application rule, which can handle adjectives such as *kəkoj* or *which* (8).

(8) Hamblin Functional Application:

If α is a branching node with daughters β and γ , and $\llbracket \beta \rrbracket^{wsg} \subseteq D_o$ and $\llbracket \gamma \rrbracket^{wsg}$ is a set of relations between D_o and D_c , then $\llbracket \alpha \rrbracket^{wsg} = \{ a \in D_c: \exists b \exists c [b \in \llbracket \beta \rrbracket^{wsg} \ \& \ c \in \llbracket \gamma \rrbracket^{wsg} \ \& \ \langle b, a \rangle \in c] \}$.

- the Hamblin Functional Application rule (KS) proposed in Kratzer and Shimoyama 2002 is not enough
 (KS) If α is a branching node with daughters β and γ , and $\llbracket \beta \rrbracket^{wsg} \subseteq D_o$ and $\llbracket \gamma \rrbracket^{wsg} \subseteq D_{\langle \sigma, \tau \rangle}$, then $\llbracket \alpha \rrbracket^{wsg} = \{ a \in D_c: \exists b \exists c [b \in \llbracket \beta \rrbracket^{wsg} \ \& \ c \in \llbracket \gamma \rrbracket^{wsg} \ \& \ a = c(b)] \}$

- **Motivation for the new rule:**
- *student* (in English and Russian) denotes a singleton set of alternatives $\{\mathbf{student}'\}$
 How does *which student* come to denote the set of alternative students?
 - It is not enough to posit that *which* denotes the singleton set $\{\lambda P. \{x: P(x)\}\}$
 - with $\{\mathbf{student}'\}$ using (KS) yields $\{x: \mathbf{student}'(x)\}$, not multiple alternatives for multiple students.

- Could *which* denote a set of alternative choice functions (CFs) [Reinhart 1992]?
 - a CF can return anything when applied to the empty set.
 - questions such as (9a) are perfect even if some students have no painting by them.

(9a) *Which painting by which student is here?*

- Because (KS) applies every function to every argument, it wrongly predicts that, if Alice is a student known to have no paintings, then it is felicitous to answer (9a) with (9b), with Chomsky the entity returned by the choice function applying to the empty set of Alice's paintings.

(9b) *Chomsky is here.*

- Certainly *kakoj* cannot possibly denote a set of alternative choice functions (see Yanovich 2005).
 - First, as above, multiple-*kakoj* sentences allow empty sets – a CF denotation for *kakoj* would make the same wrong prediction as for *which*.
 - Second, some pronouns formed from this root, such as *nikakoj*, fail to scope above negation or to escape from islands, unlike CFs.

In (10), *nikakoj* has only the lowest scope reading (* $\exists > \text{all} > \text{not}$, * $\text{all} > \exists > \text{not}$).

(10) Petja kupil vse mashiny kotoryje nikakomu studentu ne nraivilis'. (adopted from
 Petja bought all cars.ACC which nikakoj.DAT student.DAT NEG liked. Yanovich).
 'Petja bought all the cars no student liked.' (OK $\text{all} > \text{not} > \exists$)

- Finally, bare wh-root *kakoj* is an indefinite that behaves like a Hamblin set
 - [see Yanovich 2005 for details]

Hence, Russian *wh*-roots introduce alternative sets, like Japanese bare indefinites (Kratzer & Shimoyama 2002).

- These problems call for alternatives to arise in the process of semantic composition itself.

• Denotations and derivations

- Adjusting (KS) to accommodate partiality, as in (8), we propose that *which* denotes the singleton set of alternatives $\{\langle P, x \rangle: P(x)\}$ (*student* denotes a singleton set of alternatives **{student'}**)
 - The alternative is the relation between properties (in D_{et}) and the individuals that have them (in D_o). (We set aside the issue of presuppositions of which)²
- Likewise, the *wh*-root *kakoj* denotes a singleton set of a relation between properties and individuals that have these properties (11).

(11) a. $[[k_{akoj_ind}]]: \{\langle P, x \rangle: P(x)\}$
 b. $[[k_{akoj_kind}]]: \{\langle P, x \rangle: \mathbf{kind-of-P}(x)\}$

- Note that the only difference between the two *kakoj*s is object-level vs. kind-level interpretation
- When combining with an N' such as **{student'}**, the rule in (8) yields just the set of students with (11a), as shown in (12), and the set of subkinds of students with (11b).

(12) $[[k_{akoj_ind} \text{ student}']] = \text{via (8)} = \{\langle P, x \rangle: P(x)\} \{\mathbf{student'}\} = \{x: \mathbf{student'}(x)\}$

- In case $[[\gamma]]^{\text{wg}} \subseteq D_{\langle \sigma \tau \rangle}$, the denotation specified in (8) degenerates to that of the original HFA in Kratzer

2 As Yanovich (2008) suggests in footnote 6, restricting the properties involved to identifying ones is a semantic equivalent of D-linking. Thus, perhaps we should amend the lexical entry for *which* to be $\{\langle P, x \rangle | P(x) \ \& \ (\neg \exists y: P(y) \ \& \ x \neq y)\}$. This is similar to the treatment of *which* in Novel and Romero (in prep), who propose that all *wh*-phrases are definites (Rullmann and Beck 1997), and incorporate the iota operator within the alternatives represented by *which*.

and Shimojama (2002), so the meaning of simple phrases such as *koe-cto* is still generated (14) using the denotation of *koe* (13).

(13) $[[koe]] = \lambda Q. f_{speaker}(Q)$ where f is partial function from individuals to Hamblin choice functions that select objects identifiable to the individuals, and where *speaker* is the individual who is being (partially) quoted.

(14) $[[koe-cto "koe-who"]] = \text{via (8)} = \lambda Q. f_{speaker}(Q)(\{x: human(x)\}) = f_{speaker}(\{x: human(x)\})$

- A problem arises when we compose a *koe*-marked *kakoj* with its complement N', such as *student*.
 - the CF $f_{speaker}$ fails to pick out an individual, or a property
 - because *kakoj* denotes not a set of individuals but a singleton set of a relation.

$[[koe-kakoj]] = [[koe]]([[kakoj]]) = (\lambda Q. f_{speaker}(Q))(\{\langle P, x \rangle: P(x)\}) = f_{speaker}(\{\langle P, x \rangle: P(x)\})$

- We can sidestep this problem by assuming a denotation of *kakoj* that first combines with the N' by (8) to create a set of alternatives for *koe* to choose from, as desired (12, 15a).
- Despite the clitic *koe* forming an apparent unit with the *wh*-word *kakoj*, arguably the underlying constituency of the *koe-kakoj*-N' is $[koe [kakoj N']]$ (15).

(15) a. $[[koe-kakoj_ind\ student]] = \lambda Q. f_{speaker}(Q)(\{x: student(x)\}) = f_{speaker}(\{x: student(x)\})$
 b. $[[koe-kakoj_kind\ consensus]] = f_{speaker}(\{x: kind-of-consensus(x)\})$

Conclusion

- The implications of this analysis reach beyond the realm of Russian indefinites
 - expanding the reach of Hamblin semantics and forefronting the need to develop alternative-friendly semantic composition mechanisms.
- In addition, the shifting of the speaker parameter in the choice-functional operator *koe* places specificity markers into the same class of shifty phenomena as indexicals in free indirect discourse, shifting judges in predicates of taste (Stephenson 2006), exocentric uses of expressives (Potts 2003, Anand 2007), as well as possibly the eavesdropping (Egan 2005) and time lag (Fintel and Gilles 2006) puzzles raised for epistemic modals.

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