

Choice-functional series of indefinite pronouns and Hamblin semantics

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A typological survey of Haspelmath 1997 posed a challenge to the current linguistic theories of indefinites. It turned out that there are too many indefinite pronoun series with different distribution for the current theories to capture. In this paper I try to provide a partial answer to this challenge. I examine three series of Russian indefinites (*-to*, *-nibud'*, and bare series) and show that their distribution is fully determined by their semantics. Specifically, I argue Russian bare indefinite series denote Hamblin alternative sets, along the lines of Kratzer 2003; I introduce a notion of a Hamblin CF and argue *-to* morpheme denotes a Hamblin CF variable, and *-nibud'* a Hamblin CF variable with an (obligatory) Skolem argument.

1. C(hoice)-F(unctional) series of indefinites. Both series are formed by an interrogative root and a series marker. *-To* indefinites do not need any licenser. They prefer to take wide-scope readings; moreover, they can scope out of their islands, (1), which calls for a CF analysis (Reinhart 1997, Kratzer 1998). However, standard CFs of the type $\langle\langle e,t \rangle, e\rangle$ proposed in the literature are insufficient here: for a pronoun in (1a), we need a CF selecting a property from a set of properties, and likewise a place selecting and a 'manner' (i.e. $\langle\langle et \rangle, \langle et \rangle\rangle$) selecting CF for (1b,c). In order to capture this, we need Generalised CFs of a type $\langle\langle \tau, t \rangle, \tau\rangle$ rather than standard $\langle\langle e, t \rangle, e\rangle$ CFs. I argue the meaning of *-to* is just a Generalised CF variable.

- (1) a. Petja budet ščastliv esli kakaja-to devuška pridet.
 Petja will be happy if which-TO girl will come
- b. ... esli ∅ gde-to vstretit Mašu.
 ... if [he] where-TO will meet Masha
- c. ... esli ∅ kak-to smožet sdat' ekzamen.
 ... if [he] how-TO will be able to pass the exam
- ^{OK} $\exists >$ if, for (1a-c).

-Nibud' indefinites are ungrammatical in simple declarative sentences, (2a). However, they are not NPIs either: their licensers are universal quantifiers over individuals, (2b), quantificational adverbs and intensional verbs. *-Nibud'* always takes scope narrower than its licenser takes. Just as *-to* can, *-nibud'* can scope out of its island, (3). But it still cannot have the widest scope, since it always needs to be in the scope of its licenser.

- (2) a. * Petja kupil kakuju-nibud' knigu.
 Petja bought which-NIBUD' book
- b. ^{OK} Každyj mal'čik kupil kakuju-nibud' knigu.
 Every boy bought which-NIBUD' book
^{OK} $\forall > \exists$; * $\exists > \forall$
- (3) Každyj mal'čik budet rad esli ∅ vstretit kakuju-nibud' devušku.
 Every boy will be glad if [he] will meet which-NIBUD' girl
 * $\exists > \forall >$ if; ^{OK} $\forall > \exists >$ if

Island-insensitivity strongly suggests that CFs are involved in *-nibud'* interpretation. However, under Reinhart 1997, who allows free existential closure for CFs at any compositional level, it is hard to capture *-nibud'* properties: first, we need to stipulate a special constraint on *-nibud'* requiring that it find some licenser, and then to restrict possible closure sites to those in the scope of this licenser. Both stipulations are arbitrary. Under Kratzer 1998, we can get a more natural solution. Kratzer 1998 propose that CFs are not existentially closed. Intermediate scope is obtained via Skolemization (addition of an extra argument) of CFs. I propose *-nibud'* morpheme denotes a (Generalised) CF which is already

Skolemised for one argument. Thus we explain both the need for a licenser—it is just the need to find a proper binder for the argument, and the fact that *-nibud'* always scope under its licenser—having a Skolem argument bound by a quantificational operator is equivalent to being in the scope of this operator. *-Nibud'* provides further evidence in favor of Kratzer-style CFs (cf. also Matthewson 1999, Kim 2003, a.m.o.).

Farkas 1997 described a Hungarian indefinite series which is very similar to Russian *-nibud'* series. The only difference is that Hungarian 'dependent indefinites' cannot be licensed by intensional verbs. Our account carry over to Hungarian too: We only need to forbid Hungarian indefinites to have world-type Skolem arguments.

2. Russian bare indefinites. Traditional grammarians say bare indefinite pronouns are just 'lazy' colloquial variants of *-to* and *-nibud'* pronouns. It is not true—one cannot always substitute *-to* and *-nibud'* indefinites by bare ones. Licensing environments for bare pronouns include if-clauses, general questions formed with special particles (*li, neuželi*); *možet* 'it may be' but not *dolžno byt'* 'it must be' clauses; etc. In the case when there are two possible licensers a pronoun takes the narrowest scope, (4), where *kto* 'who' cannot scope over a universal quantifier in the matrix clause.

- (4) Razve každyj mal'čik skazal, čto ∅ pridet esli kto pozvonit?
 Is-it-true-that every boy said that [he] will-come if who will call?
^{OK} ∇ > who (for every boy there may be a different person who calls)
 * who > ∇ (there is a specific person who must call, the same for all the boys)

These interpretational properties are similar to those of Japanese Hamblin pronouns. I argue Russian bare pronouns introduce Hamblin sets just as Japanese ones do. Then the licensers must be Russian propositional operators. However, there are three problems with this account: 1) we cannot independently justify that bare pronoun licensers are all and only propositional quantifiers, since the difference can be seen only in presence of a bare pronoun; 2) these licensers do not form any familiar natural class (why, e.g., 'it may be', but not 'it must be', is a bare series licenser?); 3) sets of bare indefinite licensers are different in different languages (Haspelmith 1997, pp.170-4). E.g., Slovene and Byelorussian allow bare pronouns in imperatives, while Russian does not. I have nothing to say on the first problem. But I propose the following solution to the two others: all potential licensers normally do not contain propositional quantifiers in their meanings; however, there may be some lexical shifts like the one in (5); languages differ with respect to what shifts they have.

- (5) $\lambda p_{(st)}.[[možet]](p) \Rightarrow \lambda P_{(ST)}.[[možet]](\exists P)$

∃ a propositional existential quantifier, uppercase ⟨A⟩ is the type for a Hamblin set of ⟨a⟩ entities

Since bare pronouns denote Hamblin sets, $\langle\langle\tau,t\rangle,\tau\rangle$ is not a proper type for *-to* and *-nibud'* morphemes. In order to arrive at a unified account of the three Russian indefinite series, I propose that the actual argument of a CF denoted by series-forming morpheme is not $\langle\tau,t\rangle$, but $\langle T\rangle$, a Hamblin set of $\langle\tau\rangle$ entities. Hamblin CFs of the type $\langle T,\tau\rangle$ replace Generalised CFs. The semantics of a Hamblin CF is straightforward: For every Hamblin set a CF returns a member of this set. Our analyses for the CF-series and the bare series are unified now: the CF-series can be compositionally derived from the bare series.

References:

Farkas, D. (1997): "Dependent indefinites"; **Haspelmith, M. (1997):** "Indefinite pronouns"; **Kim, J.-Y. (2003):** "'Intermediate scope" in (Mandarin) Chinese"; **Kratzer, A. (1998):** "Scope or pseudoscope? Are there wide scope indefinites?"; **Kratzer, A. (2003):** "Indefinites and functional heads: From Japanese to Salish"; **Matthewson, L. (1999):** "On the interpretation of wide-scope indefinites"; **Reinhart, T. (1997):** "Quantifier scope: how labor is divided between QR and choice functions".