

Bare NPs and Semantic Incorporation:

Objects of *na-sja* verbs at the
syntax-semantics interface

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Na-sja verbs: INSTR vs. GEN

- Verbs with the cumulative prefix *na-* and with *-sja* can appear with either an INSTR or a GEN noun phrase (or with neither):

(1) a. Ja najelas' kotletami.
I na-ate-sja burgers.**INSTR**
'I stuffed myself with burgers.'

b. Ja najelas' kotlet.
I na-ate-sja burgers.**GEN**
'I ate my fill of burgers.'

c. Ja najelas'.
I na-ate-sja
'I ate my fill.'

- Despite the seeming similarity, (1a) and (1b) are quite different syntactically and semantically.
- The focus of this paper is on (1b).

Syntax of GEN-phrases

- GEN-phrases are possible only when selected by the verb; INSTR-phrases are not so restricted:

(2) a. *Deti naigralis' novyx igrušek.
 children *na-played-sja* new toys.GEN

b. Deti naigralis' novymi igruškami.
 children *na-played-sja* new toys.INSTR
 'The kids have had enough of playing with new toys.'

c. * Deti igrali novye igruški.
 children played new toys.ACC

- Thus, GEN-phrases are complements and INSTR-phrases are adjuncts

GEN-phrases are smaller than DPs

- GEN-phrases cannot contain DP-level elements

(3) * Ja najelas' ètix kotlet.

I *na-ate-sja* these burgers.GEN

intended: 'I ate my fill of these burgers.'

(OK w/kind interpretation '... such burgers')

- GEN-phrases cannot contain DP-level adjectives (cf. Pesetsky 2007):

(4) * Ja naelas' {ostal'nyx /pervyx /dannyx} kotlet.

I *na-ate-sja* {remaining /first /given} burgers.GEN

- These are OK in INSTR-phrases:

(5) Ja naelas' {ètimi / ostal'nymi} kotletami.

I *na-ate-sja* {these / remaining} burgers.INSTR

GEN-phrases are smaller than QPs

- GEN-phrases cannot contain quantity expressions, such as numerals, quantity nouns and measure nouns:

(6) a. *Ja najelas' pjati kotlet.
I na-ate-sja five.GEN burgers.GEN

b. *Ja najelas' djužiny kotlet.
I na-ate-sja dozen.GEN burgers.GEN

c. *Ja napilas' stakana vody.
I na-ate-sja glass.GEN water.GEN

- Again, these are OK with INSTR-phrases, e.g.,:

(7) Ja najelas' pjatju kotletami.
I na-ate-sja five.INSTR burgers.INSTR

GEN-phrases are smaller than CIPs

- GEN-phrases must be mass and plural count, but not singular count:
(8) Ja najelas' kotlet / supa / *jabloka.
I *na-ate-sja* burgers.GEN / soup.GEN / *apple.GEN
'I ate my fill of {burgers/soup/apple}.'
- Interestingly, morphologically plural GEN-phrases are semantically number neutral (e.g., (7) does not entail that more than 1 burger has been eaten).
- Once again, INSTR-phrases are not similarly restricted.
- Assuming Borer's (2004) analysis of the count/mass distinction as associated with the CI (Classifier) node in syntax, GEN-phrases must lack the CIP too.

GEN-phrases = Small Nominals

- GEN complements of *na-sja* verbs exhibit all the properties of Small Nominals (Pereltsvaig 2006):
 - lack functional projections above lexical NP
 - cannot serve as controllers of PRO (e.g., with secondary predication)
 - cannot serve as antecedents of reciprocals:
- (9) *Ja naslušalas' kandidatov_i, polivajuščix drug druga_i grjaz'ju.
I na-listened-sja candidates.GEN pouring each-other dirt
intended: 'I already listened to my fill of candidates pouring dirt
on each other.'

Why are GEN-phrases PLURAL?

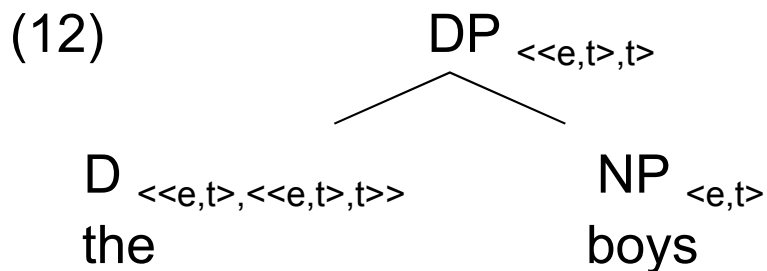
- The morphological plurality of GEN-phrases does not correspond to semantic plurality (cf. [slide 6](#)). Why?
- Morphological number on the noun is determined by number feature on Q°
- If Q° is not merged, the default number on Russian nouns is PL (cf. Pereltsvaig 2009):

(10) Terminator sobralsja v kalifornijskie gubernatory.
Terminator prepared into Californian.PL governor.**PL**
'The Terminator prepared (to run) for the California governor.' (Google)

(11) remont {komp'juterov / avtomobilej }
repair computer.**PL** / cars.**PL**
'computer repair/ auto repair'

Semantics of GEN-phrases

- The special, restricted syntax of GEN-phrases is interrelated with their semantics.
- Proposal: **Genitive NPs denote properties and are of the semantic type $\langle e,t \rangle$.**
- This is the default interpretation of bare NPs:



- **Evidence that Genitive NPs are Property-Denoting:**
 - Non-referential interpretation
 - Non-quantificational interpretation
 - Restricted scope
 - Anaphora support facts

Non-referential, non-quantificational semantics and discourse opacity

- The incompatibility of GEN-phrases with DP-level elements (cf. (3)-(4)) points to their non-referential nature.
- The incompatibility of GEN-phrases with quantity expressions (cf. (6)) points to their non-quantificational nature.
- Gen-phrases are discourse opaque with respect to pronouns that require a discourse referent as anchor (OK only with kind anaphora). E.g., the pronoun *oni* (they) in (13) is interpreted as referring back to the kind *French novels*.

(13) Ja načitalas' francuzskix romanov_i.
I *na-read-sja* [French novels].GEN
Oni_i očen' dlinnye.
they very long
'I've read French novels to the limit. They are very long.'

Restricted scope

- (14) Lena nasmotrelas' francuzskix fil'mov.
Lena *na*-watched-*sja* [French movies].GEN
'Lena has watched French movies to the limit.'
- ✓ Lena has had enough of watching French movies (in general).
 - ✗ There is a particular set of French movies such that Lena has watched these movies to the limit.
- (15) Lena ne nasmotrelas' francuzskix fil'mov.
Lena NEG *na*-watched-*sja* [French movies].GEN
'Lena hasn't watched French movies to the limit.'
- ✓ Lena has not had enough of French-movie-watching (she is still ready to watch members of the kind *French movie*)
 - ✗ There is a set of French movies such that Lena has not had enough of watching these specific movies.

VP Semantics: combining a property-denoting object with a verb

- **Restrict** (cf. Chung & Ladusaw 2004: the object does not saturate the verb's argument, but only narrows its interpretative domain)
 - 💣 However, the GEN-phrase must saturate the verb's argument (cf. (2) on slide 3)
- **Type-shifting the verb** (the verb comes to denote a relation between an individual and a property, as do intensional verbs)
 - (16) a. before type-shift: $\lambda x \lambda y. V(x)(y)$
b. after type-shift: $\lambda P \lambda y. V(P)(y)$
 - 💣 However, this approach does not account for the restricted morphosyntax of GEN-phrases.
- **Semantic Incorporation** (the verb undergoes a type-shift to become an incorporating verb)
 - (17) a. before type-shift: $\lambda x \lambda y. V(x)(y)$
b. after type-shift: $\lambda P \lambda y. P-V(y)$ (based on Dayal 2003)
- 😊 Like Semantically Incorporated nominals in other languages (cf. Farkas & de Swart 2003: 71-84), GEN-phrases are:
 - ❖ Number neutral (cf. slide 6)
 - ❖ Discourse opaque (cf. slide 11)
 - ❖ Small nominals (cf. slide 7)
 - ❖ Scopally inert (cf. slide 12)
- 😊 Therefore, we believe that **the GEN-phrases undergo Semantic Incorporation.**

Semantics of *na-sja* Clauses

- **Entailment Pattern:** A sentence with a GEN-phrase does NOT entail its counterpart without the GEN-phrase
- *Na-sja* clauses denote accomplishments
- The denoted event is measured out by the internal state of the subject
- This is a state of experiencing a certain degree of satiation with the process denoted by the VP (or, more precisely, with the type of event whereby the subject is engaged in this process).
- The prefix *na-* specifies that the degree of satiation meets or exceeds a contextually determined expectation value (cf. Filip's 2000 analysis of *na-*).
- To illustrate, for the VP *jel* (ate), and the corresponding process of eating performed by the subject, a low degree of satiation means feeling hungry, a satisfactory degree corresponds to not being hungry, while a very high degree of satiation means that the person has overeaten.

Lena najelas' = Lena has been engaged in, and has had enough of, the process of eating

$\lambda e. \exists d \exists s [\text{ate}(e) \wedge \text{agent}(e, l) \wedge \text{cause}(e, s) \wedge \text{experiencer}(s, l) \wedge \text{satiatation}(s, d, \lambda e. \text{ate}(e) \wedge \text{agent}(e, l)) \wedge d \geq d_c]$

l
Lena

$\lambda x \lambda e. \exists d \exists s [\text{ate}(e) \wedge \text{agent}(e, x) \wedge \text{cause}(e, s) \wedge \text{experiencer}(s, x) \wedge \text{satiatation}(s, d, \lambda e. \text{ate}(e) \wedge \text{agent}(e, x)) \wedge d \geq d_c]$

$\lambda P \lambda x \lambda e. \exists d [P(d)(e)(x) \wedge d \geq d_c]$
na-

$\lambda d \lambda x \lambda e. \exists s [\text{ate}(e) \wedge \text{agent}(e, x) \wedge \text{cause}(e, s) \wedge \text{experiencer}(s, x) \wedge \text{satiatation}(s, d, \lambda e. \text{ate}(e) \wedge \text{agent}(e, x))]$

$\lambda d \lambda x \lambda e. \exists s [\text{ate}(e) \wedge \text{cause}(e, s) \wedge \text{experiencer}(s, x) \wedge \text{satiatation}(s, d, \lambda e. \text{ate}(e) \wedge \text{agent}(e, x))]$

$\lambda x \lambda e. \text{agent}(e, x)$
v (-sja)

$\lambda P \lambda d \lambda x \lambda e. \exists s [P(e) \wedge \text{cause}(e, s) \wedge \text{experiencer}(s, x) \wedge \text{satiatation}(s, d, \lambda e. P(e) \wedge \text{agent}(e, x))]$
APPL

$\lambda e. \text{ate}(e)$
ate

Lena najelas' kotlet = Lena has been engaged in, and has had enough of, the process of burger-eating

$\lambda e. \exists d \exists s [\text{burger-ate}(e) \wedge \text{agent}(e, l) \wedge \text{cause}(e, s) \wedge \text{experiencer}(s, l) \wedge \text{satiatation}(s, d, \lambda e. \text{burger-ate}(e) \wedge \text{agent}(e, l)) \wedge d \geq d_c]$

l
Lena

$\lambda x \lambda e. \exists d \exists s [\text{burger-ate}(e) \wedge \text{agent}(e, x) \wedge \text{cause}(e, s) \wedge \text{experiencer}(s, x) \wedge \text{satiatation}(s, d, \lambda e. \text{ate}(e) \wedge \text{agent}(e, x)) \wedge d \geq d_c]$

$\lambda P \lambda x \lambda e. \exists d [P(d)(e)(x) \wedge d \geq d_c]$
na-

$\lambda d \lambda x \lambda e. \exists s [\text{burger-ate}(e) \wedge \text{agent}(e, x) \wedge \text{cause}(e, s) \wedge \text{experiencer}(s, x) \wedge \text{satiatation}(s, d, \lambda e. \text{burger-ate}(e) \wedge \text{agent}(e, x))]$

$\lambda d \lambda x \lambda e. \exists s [\text{burger-ate}(e) \wedge \text{cause}(e, s) \wedge \text{experiencer}(s, x) \wedge \text{satiatation}(s, d, \lambda e. \text{burger-ate}(e) \wedge \text{agent}(e, x))]$

$\lambda x \lambda e. \text{agent}(e, x)$
v (-sja)

$\lambda P \lambda d \lambda x \lambda e. \exists s [P(e) \wedge \text{cause}(e, s) \wedge \text{experiencer}(s, x) \wedge \text{satiatation}(s, d, \lambda e. P(e) \wedge \text{agent}(e, x))]$
APPL

$\lambda e. \text{burger-ate}(e)$

$\lambda P \lambda e. P\text{-ate}(e)$

$\lambda x \lambda e. \text{ate}(e) \wedge \text{theme}(e, x)$
ate

- type-shift

$\lambda y. \text{burgers}(y)$
burgers