

Imperfectivity in Russian

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LOT Winter School
Tilburg

January 20-24, 2020

Today's starting point

- Common definition of the semantics of aspect, cross-linguistically:
 - Perfective (PF):
 - Event time part of reference time (~ external perspective on an event)
 - Whole events
 - Imperfective (IPF):
 - Reference time part of event time (~ internal perspective on an event)
 - Partial events
- Common intuition: Completed events are described by PF forms.
 - (What exactly is meant by 'completed events'?)
- Do Russian IPF forms have a uniform imperfective semantics?
 - Potential problem: Imperfective forms in descriptions of (single/unique) completed events
 - Claim in the literature: The Russian IPF is (sometimes) a 'fake' IPF.
- My claim: **There is no 'fake' IPF in Russian.**

Structure of the session

- 1 Background on Russian Aspect (repetition)
- 2 Cases of IPF forms for (single/unique) complete events:
(General-)factual IPF (presuppositional, existential IPF)
- 3 Different semantic proposals for the Russian IPF
- 4 The focus on event completion alone in the definition of the Russian (I)PF is misleading.
- 5 Case study (with Olga Borik): Russian IPF past passive participles, which are factual (hypothesis)
- 6 (The beginning of an) account of the IPF as a 'true' IPF
- 7 Back to existential IPFs

Aspect in Russian

The morphological category Aspect in Russian

- A verb form (in context) is either imperfective (IPF) or perfective (PF).
 - Identical lexical meaning can be expressed by IPF and PF verb forms.
 - Common assumption: Many verb(form)s come in **aspectual pairs**.
(at least accomplishments and achievements)

- Aspectual pairs derived by **prefixes** from **simple IPFs**:

- (1) a. ipf. *pit'* > pf. *vy-pit'* 'to drink'
 b. ipf. *risovat'* > pf. *na-risovat'* 'to draw'

- Aspectual pairs derived by **suffixes** from (mostly prefixed) PFs

→ **S(econdary) I(mperfective)s** [descriptive term; glossed as SI]

- (2) a. pf. *pro-dat'* > ipf. *pro-da-va-t'* 'to sell' (lit. through-give)
 b. pf. *ot-kryt'* > ipf. *ot-kry-va-t'* 'to dis-cover, open'
 c. pf. *dat'* > ipf. *da-va-t'* 'to give'

(Set aside: Suppletive pairs that - at least from a synchronic point of view - are not morphologically transparent; (im)perfectiva tantum; biaspectual verbs; etc.)

The terms (I)PF

- Labels for forms, not necessarily meanings (for now).
- IPF forms can have different readings in context:

Canonical IPF readings:

- Process/durativity (~ Progressive) (3-a)
- Iterativity/habituality (3-b)

- (3) a. Kogda ja vošla, moj brat čital knigu.
 when I in-went.PF my brother read.IPF book
 'When I came in, my brother was reading a book.'
- b. Ona každyj den' otkryvaet okno.
 she every day opens.SI window
 'She opens the window every day.'

Non-canonical IPF reading(s): General-factual

- Possible with typical perfective meaning (~ bounded 'completed' events)
- Notoriously difficult to account for

The (general-)factual IPF

The (general-)factual IPF

(Maslov 1959)

- ① **Existential** (4) (from Grønn 2004) (see also Padučeva 1996)

Paraphrase: *There was/is etc. (at least) one event of this type.*

(e.g. Mehlig 2001, 2013; Mueller-Reichau 2013, 2015; Mueller-Reichau and Gehrke 2015)

- (4) Ne bylo somnenij, čto ja prežde **vstrečal** ee.
not was.NEU doubt.PL.GEN that I before met.SI her
'There was no doubt that I had met her before.'

- ② **Presuppositional/actional** (5) (example: Zaliznjak and Šmelev 2000, terms: Grønn 2004/Padučeva 1996)

Paraphrase: *The (already mentioned or contextually retrievable) event was/is etc. such and such.*

- (5) Zimnij Dvorec **stroil** Rastrelli.
winter-.ACC palace.ACC built.IPF Rastrelli.NOM
'It was Rastrelli who built the Winter Palace.'

The existential IPF

Paraphrase: *There was/is etc. (at least) one event of this type.*

(6) Ne bylo somnenij, čto ja prežde **vstrečal** ee.
 not was.NEU doubt.PL.GEN that I before met.SI her
 'There was no doubt that I had met her before.'

- **Tentative assumption:** This is a subtype of (potential) iterativity.
 - Falls out of an account of IPF for iterative events (e.g. in terms of unbounded event plurality, as in Ferreira 2005, 2016; Altshuler 2014)
- ⇒ I set aside existential IPFs for now.

Grønn (2004) on the presuppositional IPF

- (7) Sdelav^{pf} ètot xod [26 – Rxc3], ja [predložil^{pf} nič'ju]_{antecedent}. [...] Navernjaka, černye deržatsja^{ipf} – naprimer, 27 Ba3 Bf8 28 Nf5 d5 29 Bb2 [...], no mne ne xotelos^{ipf} načinat^{ipf} sčetnuju igru, [poèтому]_F ja i [predlagal^{ipf} nič'ju]_{anaphora}.
 'Having played this move [26 – Rxc3], I offered a draw. [...] Black can probably hold on, for instance in the line 27 Ba3 Bf8 28 Nf5 d5 29 Bb2 [...], but I didn't want to get involved in heavy calculations, and [for this reason]_F, I offered a draw.'
 (Grønn 2004, 207)

- The verb is deaccentuated. **Focus** is on some other constituent.
 - The event given by the verb is backgrounded, its prior instantiation is presupposed.
- Presupposition as **anaphor** → bound in the discourse (7) or contextually derivable (next slide)

Grønn (2004) on the presuppositional IPF

- Presupposition as **anaphor** → contextually derivable:

(8) Dlja bol'sinstva znakomyx vaš [ot' ezd]_{(pseudo-)antecedent} stal_{PF} polnoj neožidannost'ju ... Vy [uežžali^{IPF}]_{anaphora} v Ameriku [ot čego-to, k čemu-to ili že prosto voznamerilis'_{PF} spokojno provesti_{PF} tam buduščuju starost']_F?

'For most of your friends your departure to America came as a total surprise ... Did you leave for America for a particular reason or with a certain goal, or did you simply decide to spend your retirement calmly over there?' (Grønn 2004, 207f.)

Grønn's (2004) account of presuppositional IPFs

- (9) V étoj porternoj ja [...] napisal pervoe ljubovnoe pis'mo. Pisal
 in this tavern I wrote.PF first love letter wrote.IPF
 [karandašom]_F.
 pencil.INSTR
 'In this tavern I wrote my first love letter. I wrote it with pencil.'

Grønn's analysis of the 2nd sentence of this example (ascribed to Forsyth 1970):

- (10) [VP]: $\lambda e[x|INSTRUMENT(e, x), \mathbf{pencil}(x)]_{[|write(e)]}$

- VP: Background-focus division (in the sense of Krifka 2001)
- Backgrounded material is turned into a presupposition.
 → Background/Presupposition Rule in Geurts and van der Sandt (1997)
- DRT analysis: Backgrounded material is subscripted in the DRS
- Further embedding under Aspect and Tense ...

Russian IPF semantics

What is the semantics of Russian aspect?

Long-standing issue raised by factual IPFs with 'completed' events:
Do IPF forms always express a uniform imperfective meaning?

- Common approaches to the semantics of Russian Aspect:
 - Russian Aspect as a **relation between reference/assertion time and some other temporal interval** (Klein 1995; Schoorlemmer 1995; Borik 2002, 2006; Paslawska and von Stechow 2003; Grønn 2004, 2015; Ramchand 2004)
 - 'Slavic Aspect' as **event predicate modifier** – total vs. partial events (Filip 1999, et seq.) (also Altshuler 2012, 2013, 2014, for Russian)
- **Two variants:**
 - Most common: positive definition only of PF; IPF 'unmarked' (-PF or \pm PF) (especially because of factual IPF)
 - Positive definition also of IPF

Theoretical approaches that I set aside

- **Schoorlemmer (1995)**: Syntax of Russian nominalisations and participles
 - ~ Klein
 - PF: E and R are always distinct
 - (distinguishes (a)telic from (I)PF)
- **Filip (1999, 2000, 2003)**: Semantic of verb classes, prefixes, aspect
 - applies Krifka (earlier) and Rothstein (later) to Czech ('Slavic')
 - partial (IPF) vs. total (PF) events
 - (distinguishes (a)telic from (I)PF)
- **Paslawska and von Stechow (2003)**: Syntax-semantics of Russian perfect readings
 - Kleinian definition of PF
 - IPF: undefined (can mean anything, ~ unmarked)
 - (do not (explicitly) distinguish (a)telic from (I)PF)
- **Arregui et al. (2014)**: Modal definition of IPF; different IPF readings come about due to different modal bases.

(Russian) IPF semantics: Different proposals

- Borik (2002, 2006): PF vs. –PF

Distinguishes (a)telic from (I)PF but does not further take (a)telic into account

- the E-R relation is fixed, i.e. $E \subseteq R$ by default;
- the S-E relation determines temporal interpretation and morphological tense;
- the S-R relation determines perspective, therefore, aspect; the E-R relation also contributes to the aspectual system because it derives progressive readings in non-default cases

$$(11) \quad \begin{aligned} \text{PF: } & S \cap R = \emptyset \ \& \ E \subseteq R \\ \text{IPF: } & \neg (S \cap R = \emptyset \ \& \ E \subseteq R) \\ & = S \cap R \neq \emptyset \ \vee \ E \not\subseteq R \end{aligned}$$

- Disjunction captures: ‘progressive’ or ‘present perfect’ (i.e. existential) IPF readings.
- Has nothing to say about presuppositional IPF.
- (Leaves aside habituality / iterativity)

(Russian) IPF semantics: Different proposals

- Partitive semantics with **events** (see also Filip 1999; Tatevosov 2015)

e.g. Altshuler (2013, 2014), building on Landman (1992):

(12) IPF $\rightsquigarrow \lambda P \lambda e' \exists e \exists w [\text{STAGE}(e', e, w^*, w, P)]$
 $[[\text{STAGE}(e', e, w^*, w, P)]]^{w, g} = 1$ iff (i)-(iv) holds:

- (i) the history of $g(w)$ is the same as the history of $g(w^*)$ up to and including $\tau(g(e'))$
- (ii) $g(w)$ is a reasonable option for $g(e')$ in $g(w^*)$
- (iii) $[[P]]^{w, g} = 1$
- (iv) $g(e') \sqsubseteq g(e)$

+ pragmatic strengthening for different IPF readings (in (12-iv))

- For ongoing IPF: $g(e') \sqsubset g(e)$
- For presuppositional IPF: $g(e') = g(e)$
- Does not address existential IPFs in these papers, but see below

+ plural events for habituality (following Ferreira 2005)

(Russian) IPF semantics: Different proposals

- Grøn (2004): IPF is $e \circ t$ (building on Klein 1995)
 - + pragmatic strengthening to 'proper' IPF or to PF semantics
 - + role of information structure
- Grøn (2015): No uniform IPF semantics anymore
Rather: PF vs. \pm PF

$$\begin{aligned}
 (13) \quad [[\text{PF}]] &= \lambda t \lambda e. e \subseteq t \\
 [[\text{IPF}_{\text{ongoing}}]] &= \lambda t \lambda e. t \subseteq e \\
 [[\text{IPF}_{\text{factual}}]] &= \lambda t \lambda e. e \subseteq t \quad \text{'Fake IPF'}
 \end{aligned}$$

+ system of (in)definite times and events (cf. Grøn and von Stechow 2010)

Differences between PF and $\text{IPF}_{\text{factual}}$: IPF appears whenever PF forms are infelicitous ['aspectual competition']

- Presuppositional IPF: To avoid narrative progression
- Existential IPF: When the reference time is too large

(see also Alvestad 2014)

Why the focus on event completion is misleading

It is not just about (non-)completed events.

(Non-)completion is neither a necessary nor a sufficient condition for (I)PF.

- Cases where completed events are described by IPF forms:
 - Factual IPFs (examples above)
 - Habitual chains of foregrounded events
 - Chains of foregrounded events in the historical present
 - 'Annulled result' (Sometimes as a subtype of factual IPF)
- Cases where non-completed events are described by PF forms:
 - The last event in a unique chain of foregrounded events

(see also discussion in Gehrke 2002)

Completed events do not require PF: Habituality

- (14) Ona **prixodila** ko mne každyj den', a **žadat'** ee ja **načinal** s she.NOM to-went.SI to me every day and wait.INF.IPF her.GEN I began.SI from utra. [...] Za **desjat'** minut ja **sadilsja** k okoncu i **načinal** morning.GEN within ten minutes I down-sat.SI to window.DAT and began.SI **prisušivat'sja**, ne stuknet li vetxaja kalitka. listen.INF.SI not clatters.PRES.PF PRT old.NOM gate.NOM
 'She came to me every day, and I started waiting for her from morning onwards. Within ten minutes [of her arrival] I sat next to the window and started listening whether the gate clatters.'

(from Bulgakov, *Master i Margarita*; discussed in Gehrke 2002)

- The whole passage is habitual: *každyj den'* 'every day' in first sentence
- 4 foregrounded events (in green), out of these at least 2 completed: her coming (*prixodila*), speaker's sitting down (*sadilsja*)
- Nevertheless, these verb forms are IPF (SIs); PF would be infelicitous.

However, these are not treated as cases of 'fake' IPF.

Side note: This might be different in Czech.

Translation of the original Russian example:

- (15) **Chodila** ke mně denně za poledne a já na ni
 went.INDET.IPF to me daily during midday.ACC and I on her
čekával už od rána. [...] Deset minut před tím,
 waited.FREQ.IPF already from morning.GEN ten minutes before that
 než měla přijít, jsem se **uchýlil** k oknu
 when had.FEM(3SG).IPF come.INF.PF AUX1SG REFL proceeded.PF to window
 a napjatě **poslouchal**, kdy klapne omšelá
 and attentively listened.IPF when clatters.PRES.PF moss-covered.NOM
 branka.
 gate.NOM
 'She came to me daily during midday and I used to wait for her from morning
 onwards. Ten minutes before she was supposed to come I proceeded to the
 window and attentively listened to when the moss-covered gate clatters.'

(see Gehrke 2002)

Completed IPFs: Historical present

- (16) [...] les končilsja, neskol'ko kazakov vyezžajut iz
 forest end.PF.PST some cossacks out-ride.IPF.PRES out
 nego na poljanu, i vot, vyskivaet prjamo k nim
 it on field and there out-jump.IPF.PRES directly to him
 moj Karagez; vse kinulis' za nim s krikom [...]
 my Karagez all.PL rush.PF.PST after him with shout
 'The forest ended, a few cossacks are riding out of it into the
 field, and there my Karagez jumps out directly towards them.
 They all rushed after him with a shout.'

(from Lermontov, *Geroj našego vremeni*; discussed in Galton 1976, 25)

Completed IPFs: ‘Annulled result’

- (17) a. K vam kto-to **prixodil**.
 to you someone came.IPF
 ‘Someone came to you.’ (The person is not there anymore.)
- b. Ja **otkryval** okno.
 I opened.IPF window
 ‘I opened the window.’ (The window is now closed.)

(after Smith 1991/97, 311)

⇒ Overall, there are many cases in which completed events do not require the PF; yet, only some of these are labeled ‘fake IPF’.

(Russian) PF does not require completed events.

- Chains of foregrounded unique events require PF verb forms for reference time movement (in the sense of Kamp and Reyle 1993). (see also Borik 2002, 2006)
- This is also true for the last event in the chain, even if this event is not necessarily completed:

(18) Ona *vstala* i {*zapela* / **pela* / **zapevala*}.
 she got-up.PF and ZA-sang.PF sang.IPF ZA-sang.IPF
 'She got up and sang / started singing.' (again, Czech would be different: Gehrke 2002)

- Several such verbs in a row are interpreted as 'actions beginning simultaneously' (Dickey 2000, 224):

(19) Fljagin *vyšel*: čto tut načalos'! *Zagudeli*, *zavorčali*,
 Fljagin out-went.PF what then began.PF ZA-hooted.PF ZA-grumbled.PF
zakričali.
 ZA-shouted.PF
 'Fljagin went out. And what began then! They started hooting,
 grumbling and shouting.' (from Švedova and Trofimova 1983, discussed in Dickey 2000)

Against 'fake' IPF

- Slavistic traditional linguistics: Factual IPF also with 'incomplete' events: **non-resultative factual IPF**

(e.g. Glovinskaja 1981; Padučeva 1996)

- These are usually ignored in the formal literature, because the more extraordinary situation seems to be where a (presumably) single 'completed' event is referred to with an IPF form.
- However, they still constitute a different IPF 'reading' than process or habituality.

⇒ **Calling factual IPFs 'fake IPFs' and giving them the same semantics as PF is missing the point.**

⇒ **Event (non-)completion is not (necessarily) decisive for the choice of (I)PF and should therefore not play the central role in semantic accounts of (I)PF.**

A case study:
Russian IPF PPPs
(with Olga Borik, UNED, Madrid)



Back to presuppositional IPF

- **Past passive participles (PPPs)** are resultative and are therefore regularly derived from PF verbs; IPF PPPs are usually discarded as exceptional / ignored (e.g. Švedova 1980; Schoorlemmer 1995; Paslawska and von Stechow 2003).
- **Corpus study by Borik and Gehrke (2018)**
 - Some regular, compositional occurrences of IPF PPPs
 - Hypothesis: IPF PPPs always involve factual meanings

→ Semantic account of the VP with a presuppositional IPF in (20)

(building on Grønn 2004)

(20) a. **Stroeno bylo** èto vse [ploxo, xromo, ščeljasto]_F.

built.IPF was this all badly lamely with-holes

'It was all built badly, lamely, with holes.'

b. $[[VP]] =$

$\lambda e[[\mathbf{bad}(e) \wedge \mathbf{lame}(e) \wedge \mathbf{with-holes}(e)]]_{[x|\mathbf{build}(e) \wedge \mathbf{THEME}(e,x)]}$

- No account of the further derivation, in particular of the semantics of aspect and tense (I will come back to this)

Our arguments for presuppositional IPF PPPs

1 Background-focus marking

- **Focus** on quasi-obligatory modifiers; e.g. (21), (22)
- Often **marked word order**; e.g. (21-a) & many previous ex.s, e.g. (22)
 - Unmarked word order: BE +PPP; marked: PPP + BE + Mod.
 - ⇒ The event, denoted by the PPP, is part of the background.

- (21) a. **Stroeno bylo** èto vse [ploxo, xromo, ščeljasto]_F.
 built.IPF was that all badly lamely with-holes
- b. Zapiski byli pisany [ne dlja pečati]_F [... no ...]
 notes were written.IPF not for print but

- (22) a. **Pisano** èto bylo Dostoevskim [v 1871 godu]_F [...]
 written.IPF that was Dostoevskij.INSTR in 1871 year.PREP
- b. **Kryt** byl dom [solomoj]_F [...]
 covered.IPF was house hay.INSTR

Our arguments for presuppositional IPF PPPs

② Inference of a completed event survives under **negation**.

- (23) Stroeno (**ne**) bylo èto vse ploxo, xromo, ŝčeljasto.
 built.IPF not was that all badly lamely with-holes
 ~> All that was / has been built.
- (24) Zapiski (**ne**) byli pisany ne dlja pečati [... no ...]
 notes not were written.IPF not for print but
 ~> The notes were / have been written.

Our arguments for presuppositional IPF PPPs

- ③ **Anaphoricity**: The anaphoric possibilities in IPF passives are parallel to the anaphoric possibilities of definite descriptions.
- Pick up previously introduced discourse referents
 - With identical lexical material (only difference in Aspect)
~ *A girl entered the room. ... The girl ...*
 - With lexically related material: hyponymy/hyperonymy
~ *A blonde girl/Petra entered the room. ... The girl ...*
 - With lexically related material: nominalisation (if nominalisations introduce discourse referents)
 - Anaphoricity via associative contextual relations, parallel to bridging (in the sense of Clark and Haviland 1977)
 - Created objects
 - (In)direct speech
 - (Nominalisations if they do not introduce discourse referents, and we need to reconstruct them instead)

More on anaphoricity

- Anaphoric to a previously introduced perfective (PF) event, e.g. by hyponymy:

(25) Èto – ne ja **sdelal**, èto – **vedeno** bylo moeju rukoj!
 this not I did.PF this led.IPF was my.INSTR hand.INSTR
 ‘Not I did this, this was orchestrated by my hand!’

- Anaphoric to an event introduced by a deverbal noun:

(26) Čto kasaetjsa **platy** deneg, to **plačeny** byli naličnymi
 what concerns payment.GEN money.GEN so paid.IPF were in-cash
 šest' tysjač rublej [...]
 six thousand Rubles
 ‘What concerns the payment: 6000 Rubles were paid in cash.’

More on anaphoricity: ~ Bridging?

- Anaphoric via a **created object**:

(27) **Pis'ma** ego **pisany** byli černo i kruglo [...]
 letters his written.IPF were black and round
 'His letters were written in black and round letters.'

Idea: Created objects presuppose the event that created them.

- This enables the resolution or the accommodation of the presupposition.
 - Created objects have independently been shown to enable event coercion, e.g. *She finished her hamburger.*
 (e.g. Pustejovsky 1995; Egg 2003; Asher 2011)
- A similar mechanism that enables event coercion with these objects could also resolves the anaphoric link.

More on anaphoricity: ~ Bridging?

- Anaphoric via (in)direct speech:

(28) *Kak i govoreno bylo zaranee, Vasil'ev [...]*
 how and said.IPF was earlier Vasil'ev

Idea: (In)direct speech presupposes a speech event.

- High frequency of speech act verbs among those that express the presuppositional IPF, also with active presuppositional IPF (see also discussion in Grønn 2004)

Shortcomings of Borik and Gehrke (2018)

- (Further issues and open questions in the appendix.)
- We do not provide an account of the semantics of IPF.

⇒ In the rest of this session, I will explore how we can move forward from here.

Presuppositional IPF PPPs are 'true' IPFs

Factual IPFs as 'true' IPFs

- Intuition for presuppositional IPF (and for Russian aspect semantics in general): Discourse relations between events are crucial.
- With Grønn's (2004) temporal overlap, $e \circ t$?
- Rhetorical relations between e_2 and e_1 with temporal overlap, e.g. in Lascarides and Asher (1993):
 - Elaboration: α 's event is part of β 's
 - Background: The state described in β is the 'backdrop' or the circumstances under which the event in α occurred.
- ⇒ Intuitively, the presuppositional IPF involves Elaboration: α 's event is part of β 's
 - But that is more concrete than just temporal overlap ... it is a partitive semantics with events.

Let's try with a partitive semantics for IPF

- (29) Čto kasaetjsa **platy** deneg, to **plačeny** byli naličnymi šest' tysjač rublej [...]
 'What concerns the payment: 6000 Rubles were paid in cash.'

$$[e_1, e_2, t, n, x | \text{payment}(e_1), \text{pay}(e_2), e_2 = e_1, \\ \text{THEME}(e_2, x), \mathbf{6.000R}(x), \text{in-cash}(e_2), t \subseteq \tau(e_2), t < n]$$

- *plata* 'payment': Event nominal, introduces the event e_1
- Event described by the IPF PPP: e_2 , a definite description that is anaphorically related to e_1 : $e_2 = e_1$
- New information (in focus) about e_2 (and therefore about e_1):
Theme of e_2 : 6.000 Rubles; in cash
- IPF: $t \subseteq \tau(e_2)$
- Past tense: $t < n(\text{ow})$

Potential problem of this analysis:

- We lose the strong sense that overall the payment event e_1 (and thereby also e_2) was 'completed' (~ PF semantics?)

[maybe not a problem with finite PF antecedent?] □

Let's try with a partitive semantics for IPF

With reconstruction of PF semantics for the nominalisation: $\tau(e_1) \subseteq t_1$:

$$(30) \quad [e_1, e_2, t_1, t_2, n, x | \text{payment}(e_1), \text{pay}(e_2), \text{THEME}(e_2, x), \\ \mathbf{6.000R}(x), \mathbf{in-cash}(e_2), e_2 = e_1, \tau(e_1) \subseteq t_1, t_2 \subseteq \tau(e_2), t_2 < n]$$

- New problems:
 - Nominalisations are non-finite, so t_1 is not related to n ...
 - ... and how are t_1 and t_2 related?

General questions concerning nominalisations

- Do we want to associate them with temporal traces?
 - Maybe at most complex event nominals
- Which aspect semantics?
 - Intuitively here PF semantics.
 - But Russian nominalisations do not come in aspectual pairs, so why associate them with (I)PF semantics to begin with?

Let's try with a finite PF antecedent (constructed)

- (31) a. **Zaplatili.** **Plačeny** byli naličnymi šest' tysjač rubej [...]
 paid.3PL.PF paid.IPF were in-cash six thousand Rubles
 'They paid. It was paid 6.000 Rubles in cash.'
- b. $[e_1, e_2, t_1, t_2, n, x | \text{pay}(e_1), \tau(e_1) \subseteq t_1, t_1 < n, \text{pay}(e_2), \text{THEME}(e_2, x),$
6.000R(x), in-cash(e_2), e_2 = e_1, t_2 \subseteq \tau(e_2), t_2 < n]

- Probable objection of proponents of the 'fake' IPF analysis: IPF semantics for e_2 does not capture that the paying event was completed.

BUT: Event completion information is already given in the first sentence about e_1 .

- Since e_2 equals e_1 the actual event of paying remains completed.
 - t_2 is part of the run time of $e_2 \rightarrow$ it is part of the run time of e_1 .
 - By transitivity, t_2 is then also part of the bigger reference time t_1 .
- \rightarrow The second sentence zooms in on a narrower reference time for which an assertion is made, and this is what is captured by the IPF semantics.

Another example from the corpus

- (32) I tak napisano, što mnogie rasplakalis' – krovju
 and so written.PF that many started.crying.PF blood.INSTR
 duši pisano.
 soul.GEN written.IPF
 'It was written so that many started to cry, it was written with the
 blood of the soul.'
- (33) $[e_1, e_2, t_1, t_2, n, x | \mathbf{write}(e_1), \tau(e_1) \subseteq t_1, t_1 < n,$
 $\mathbf{write}(e_2), \mathbf{blood-of-soul}(x), \text{INSTRUMENT}(e_2, x), e_2 = e_1,$
 $t_2 \subseteq \tau(e_2), t_2 < n]$

Interim summary

- Taking the discourse / rhetorical structure into account, the **presuppositional IPF** turns out to be a **'true'** IPF: it **elaborates on a part of a previously introduced event**.
 - The **notion of 'completed' events** is misleading:
 - We are not concerned with actual events being (non-)completed, but with the way we describe the event (with aspectual forms).
 - There are numerous mismatches between (I)PF forms and (in)complete events.
- ⇒ Calling factual IPFs 'fake IPFs' and giving them the same semantics as PF is missing the point.

Open issues

- The proposed analysis crucially builds on there being a **finite PF antecedent**. (here even a proper partitive IPF semantics would work)
 - What do we do with **non-finite antecedents** (e.g. nominalisations) which do not come in a particular aspect? (or do they?)
 - e.g. in our example: *plata* 'payment'
platit' 'to pay (IPF)' – *zaplait'* 'to pay (PF)'
 - What do we do in our **bridging cases**?
- Is **event (in)completion** the right notion to build on for the semantics of aspect in **Czech**?
Another side note: Czech nominalisations do come in aspectual pairs

Back to existential IPFs, and why discourse might play a role here as well

Altshuler (2012)

- Recall: The semantics of IPF always involves $t \subseteq e$ (pragmatic strengthening story in Altshuler 2014)
- Discussion of **existential IPF** uses, e.g. (34); observations:
 - The IPF events precede the previous PF event ~ English pluperfect
 - No narrative progression with the two IPF events

(34) Nedelju nazad Marija **pocelovala** Dudkina. On **daril** ej cvety i
 week ago Maria kissed.PF Dudkin he gave.IPF her flowers and
priglašal ee v teatr.
 invited.SI her to theatre
 'A week ago, Maria kissed Dudkin. He had given her flowers and had invited her to the theatre.'

- This is different with the PF (35):
 - The 2nd and 3rd PF events follow the 1st PF event
 - Narrative progression relation between all three events

(35) Nedelju nazad [...] On **podaril** ej cvety i **priglasil** ee v teatr.
 week ago he gave.PF her flowers and invited.PF her to theatre
 'A week ago ... He gave her flowers and invited her to the theatre.'

Altshuler's (2012) account

- DRT with **multiple coordinates** (not just one reference time)
- Integration of **discourse relations** (aka rhetorical relations):
 - OCCASION: Typical relation in narrative discourse; incompatible with IPF semantics
 - BACKGROUND, ELABORATION: Relations typically expressed by IPF(see op.cit. for more details)

Desiderata for a theory of Russian (Slavic) aspect

- A fully compositional account of (I)PF on monoeventive and bieventive structures at the sentential level
 - So far, Tatevosov seems the most promising, but he is not very explicit about the actual input to (I)PF (or the meaning contribution of the prefixes), and he also only seems to be interested in a theory of outer aspect.
- Integrating the discourse structure into the semantics
 - Grønn and colleagues delegate it to the pragmatics
 - A dynamic semantics could keep it in the semantics; so far only Altshuler, Gehrke

Desiderata for a theory of Russian (Slavic) aspect

- Russian vs. Czech (vs. other Slavic languages)
 - Very similar morphology, but different uses in discourse
 - Can we even work with one more general semantics for (I)PF (overlap/inclusion relation between E and R/R and E)?
- For Russian, it also seems to be a question of (in)definiteness of the event / the time associated with the event
 - Adding (in)definiteness for times and events, like Grønn – but he, again, does not take into account what happens below AspP
 - (This could also relate to the role of finiteness in Russian, vs. Czech)

Desiderata for a theory of Russian (Slavic) aspect

- Is there a true semantic difference between simple and secondary IPFs?
 - There seem to be some morphological tendencies that suggest yes, but these are tendencies, not absolutes.
 - (e.g. presuppositional: mostly simple IPF / existential & habitual: mostly SI)
- Do we really want to give no uniform semantics to IPF forms (like Paslawska & von Stechow, Grønn)?
 - Intuitively, this feels like giving up ...
 - ... but none of the more concrete proposals can capture all the uses of Russian IPF (so far).
 - Intuitively, it feels like taking into account the difference between simple and secondary IPFs should give us some headway, but the received view seems to be that (semantically) there are no differences.
 - In addition, taking into account the overall discourse should help as well.

Conclusion of the course: What we discussed

- Inner aspect
 - Vendler classes (sta, act, acc, ach) and other classes
 - (A)telicity
 - Aspectual composition (Krifka, Verkuyl)
 - Scale structure (Krifka, Zwarts, Hay et al., Kennedy & Levin)
 - Event structure (Pustejovsky, von Stechow, Beck, Rothstein)
 - Event decomposition in syntax and semantics (Ramchand, Arsenijević)
- Outer aspect
 - Aspect and Tense as relations between times (Reichenbach, Klein)
 - Aspectual operators and coercion (de Swart)
 - Syntactic implementation of pronominal approach to Aspect and Tense (Demirdache & Uribe-Etxebarria)
 - The Progressive and imperfectivity more generally (Dowty, Portner, Landman)

Conclusion of the course: What we discussed

- Inner and outer aspect in Russian (and Czech)
 - Aspectual morphology: Prefixes and suffixes
 - (Im)perfectivity \neq (A)telicity
 - Internal vs. external prefixes
 - Russian vs. Czech
 - The semantics of the IPF: How do we handle factual IPFs?
- Research that needs to be done
 - A full model of (I)PF that takes into account the discourse structure
 - Formal account of the cross-Slavic differences in aspect usage

The semantics of aspect

Thanks!

Berit Gehrke

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Two ‘passive’ constructions in Russian

(36) Active

Storož otkry(va)l vorota.
 watchman.NOM opened.(I)PF gate.ACC.PL
 ‘A / The watchman opened a / the gate.’

- **Periphrastic passive:** BE + past passive participles (PPP) (37-a)
- **Reflexive passive:** Active form + reflexive *-sja/-s’* (37-b)

(37) Passive

- a. Vorota byli otkryty storožem.
 gate.NOM.PL were opened.PF.PPP watchman.INSTR
 ‘A / The gate was opened by a / the watchman.’
- b. Vorota otkryvalis’ storožem.
 gate.NOM.PL opened.SI.PL.RFL watchmann.INSTR
 ‘A / The gate was opened by a / the watchman.’

(seemingly similar situation in other Slavic languages**)

Aspectual restrictions in Russian passives

- Periphrastic passive: only PF (usually) (38)
- Reflexive passive: only IPF (usually) (39)

(38) a. Vorota **byli otkryty** storozhem.
 gate.NOM.PL were opened.PF.PPP watchman.INSTR
 'A / The gate was opened by a / the watchman.'
 b. *Vorota **byli otkryvany** storozhem.
 gate.NOM.PL were opened.SI.PPP watchman.INSTR

(39) a. Vorota **otkryvalis'** storozhem.
 gate.NOM.PL opened.SI.PL.RFL watchman.INSTR
 'A / The gate was opened by a / the watchman.'
 b. *Vorota **otkrylis'** storozhem.
 gate.NOM.PL opened.PF.PL.RFL watchman.INSTR

- Exceptions to these "rules":
 - IPF PPPs: Borik and Gehrke (2018) (see also Knjazev 2007)
 - PF refl. pass.: e.g. Schoorlemmer (1995); Fehrmann et al. (2010)

Russian PPPs in periphrastic passives

- Different opinions:
 - Standard assumption: Only PF can be used.
 - IPF PPPs are idiomatic / frozen adjectives.
 - In analyses of passives, they are therefore not taken into account. (e.g. Babby and Brecht 1975; Švedova 1980; Schoorlemmer 1995; Paslawska and von Stechow 2003)
- e.g. Schoorlemmer (1995) spells out the following restrictions for PPPs:
 - only from PF transitive verbs
 - only from paired PF verbs (~ accomplishments, achievements)
- Knjazev (2007): Sometimes also IPF, but never with a process meaning
This will be corroborated by our corpus study.

Russian PF PPPs: Adjectival or verbal?

- Babby and Brecht (1975): Always adjectival
- Paslawska and von Stechow (2003), e.g. (40):
 - ‘Adjectival/stative’ with present tense copula (= null copula)
 - ‘Verbal/eventive’ with past tense forms of BE

(40) Portret (byl) narisovan karandašom.
 portrait.NOM (was) painted.PPP pencil.INSTR
 ‘The portrait is/was painted with a pencil.’

‘Adjectival/stative’ PPPs (with a null form of BE) allow for the **temporal localisation of the event** (contrasting, e.g., with German) (41).

(41) Étot dom postroen v prošlom godu.
 this.NOM house.NOM built in last.PREP year.PREP
 compare German: ?Dieses Haus ist im letzten Jahr gebaut.

P&vS’s analysis: ‘Adjectival/stative’ PPPs involve target-stativisation of VoiceP (in German etc. of VP). (cf. Kratzer 2000; Anagnostopoulou 2003)

Russian PF PPPs: Adjectival or verbal?

- Advantage of P&vS's analysis:
 - Target state requirement captures restriction to paired verbs (~ accomplishments / achievements; cf. Schoorlemmer 1995)
- Problems of P&vS's analysis:
 - This does not capture (alleged) restriction to PF, though:
 - IPF PPPs with target states should in principle be possible (and we will see that they are, but still rather restricted)
 - No analysis of 'verbal/eventive' PPPs; where we could expect more IPF PPPs, also with a process meaning (but we will confirm Knjazev's claim and see that this is not the case)
 - More generally, event-related modifiers should never occur with **adjectival** participles (unless events are instantiated at Voice; but this is not what we assume here.)
 - The PPPs might always be stative, but they are still verbal.

This talk: PPPs can be verbal or adjectival

- Borik (2014): No modification restrictions, with or without BE; e.g. (42) → **Verbal PPPs** exist in any tense

(42) Vorota (byli) otkryty storozhem rovno v 6
 gate.NOM.PL (were) opened.PPP watchman.INSTR exactly in 6
 utra na 2 časa.
 morning.GEN on 2 hours
 ‘The gate is/was opened by the watchmen at exactly 6 in the morning for 2 hours.’

- Conclusion: (PF) PPPs can be either verbal or adjectival.**
 [like English] (see also Schoorlemmer 1995; Borik 2013)

Borik and Gehrke (2018)

- Russian IPF PPPs
 - Received view: Should not exist
 - Corpus data: They do, but restricted to particular IPF meanings.
- Our claim: They can be **regular participles**, based on their:
 - Derivation: Transparent composition
 - Use: in unambiguously verbal periphrastic passives
- Hypothesis: Only non-canonical factual IPF meanings
- Analysis of presuppositional IPF PPPs (subtype of general-factual)
Condition on this use:
 - The event described by the IPF PPP behaves like a definite description which has to be anaphorically linked to a contextually salient eventive discourse referent.

The data

- Russian National Corpus (RNC) (ruscorpora.ru)
 - 109,028 documents, 22,209,999 sentences, 265,401,717 words
 - Non-disambiguated version
 - Grammatical feature: partcp,praet,pass,ipf
- IPF PPPs directly preceding or following a finite form of *byt'* 'be'
 - partcp,praet,pass,ipf distance: 1 from *byt'*: 2,632 contexts
 - *byt'* distance: 1 from partcp,praet,pass,ipf: 17,015 contexts

Qualitative, not quantitative analysis

- The query excludes PPPs with non-finite or null forms of *byt'* 'be' (the latter: present tense), PPPs as second conjuncts etc.
- Manual exclusion of the following types of data:
 - Long form PPPs (are not used in periphrastic passives)
 - Biaspectual forms (also tagged as IPF in RNC), e.g.:
 - *obeščan* 'promised', *velen* 'ordered'
 - Verbs in *-ovat'*: *ispol'zovan* 'used', *realizovan* 'realised'
 - Tagging mistakes, e.g.:
 - *Bjorndalen* (Ole Einar Bjørndalen), *Sezan* (Paul Cézanne) as PPP
 - *strašen* 'horrible.ADJ' as PPP
 - *otvečen* 'answered.PF', *pereključen* 'off-turned.PF' as IPF

Non-compositional IPF PPPs

- Idiomatic cases: *(ne) lykom šit* lit. '(not) sewn with bast fibre', meaning 'simple-minded'
- Fixed expressions: *rožden/kreščen* 'born/baptised'
- Genuine adjectives: *viden*, lit. 'seen', meaning 'visible'

(We did not further include these cases.)

Compositional IPF PPPs

- Regular, productive, repeated forms with transparent, predictable meaning (not idiosyncratic):

(43) *pisan* 'written.IPF', *čitan* 'read.IPF', *pit* 'drunk.IPF', *eden* 'eaten.IPF', *šit* 'sewn.IPF', *delan* 'made.IPF', *čekanen* 'minted.IPF', *bit* 'beaten.IPF', *myt* 'washed.IPF', *brit* 'shaved.IPF', *strižen* 'groomed.IPF', *kormlen* 'fed.IPF', *nesen* 'carried.IPF', *govoren* 'said.IPF', *prošen* 'asked.IPF', *zvan* 'called.IPF', *kusan* 'bit.IPF', *kryt* 'covered.IPF', *njuxan* 'smelled.IPF', etc.

First generalisations:

- Many IPF PPPs of saying verbs and incremental verbs, but not exclusively
- Compositional IPF PPPs are rare, but they cannot simply be ignored.

→ We need a compositional analysis.

No secondary imperfectives

- Only 3 examples, not Modern Russian; e.g. Church Slavonic:

(44) V leto 7010 mesjaca avgusta v šestoe na
 in summer 7010 month.GEN august.GEN in 6th on
 Preobraženie Gospoda našego isusa Xrista
 Transfiguration Lord.GEN our.GEN Jesus.GEN Christ.GEN
 načata byst' **podpisyvana** cerkov' [...]
 begun.PF.PPP be.3.SG.AOR signed(painted).SI church

→ No secondary imperfective PPPs in Modern Russian

(see also Knjazev 2007)

What kind of passive?

Why is the question important?

- Standard assumption: IPF PPPs are exceptions and to be analysed as adjectives (not as PPPs).
- One possible analysis of adjectival passives: adjectivisation in the lexicon.
 - Were we to find only adjectival IPF PPPs, we could maintain the standard assumption (together with this analysis of adjectival participles).

(However, we do assume that also adjectival PPPs should be analysed compositionally.)

Examples of adjectival IPF PPPs

- With event kind modification:

(45) Kryt byl dom solomoj [...]
 covered.IPF was house hay.INSTR
 'The house was covered with hay.'

(46) [...] ne skazal, čto vagon-to naš učebnikami gružen
 not said.PF that wagon-PTL our school-books.INSTR beladen.IPF
 byl?
 war
 'Didn't he say that our wagon was loaded with school books?'

(47) My oba byli striženy nagolo [...]
 we both were groomed bald
 'We both had our heads shaven.'

Examples of clearly verbal IPF PPPs

- Modification of an instantiated event:

(48) Pisano èto bylo Dostoevskim v 1871 godu [...]
 written.IPF that was Dostoevskij.INSTR in 1871 year.PREP
 'This was written by Dostojevskij in 1871.'

(49) Èto [...] vedeno bylo moeju rukoj!
 this led.IPF was my.INSTR hand.INSTR
 'This was orchestrated by my hand!'

(50) [...] sleduja tem putem, kotorym neseno bylo v
 following this.INSTR path.INSTR which.INSTR carried.IPF was in
 Gefsimaniju dlja pogrebenija telo Bogomateri [...]
 Gethsemane for burial body mother-of-God.GEN
 "... on the same path, on which the body of the mother of God was
 carried to Gethsemane to be buried.'

⇒ IPF PPPs can also be verbal.

Which IPF contexts?

- Knjazev (2007): IPF PPPs cannot have a process meaning.
→ also not in our data
- Our hypothesis: IPF PPPs are always factual.

First indication: Exchangeability with PF PPPs

- (51) a. (Na)pisano èto bylo Dostoevskim v 1871
(PF)written.IPF that was Dostoevskij.INSTR in 1871
godu [...] year.PREP
- b. (Po)kryt byl dom solomoj [...] (PF)covered.IPF was house hay.INSTR
- c. My oba byli (po)striženy nagolo [...] we both were (PF)groomed.IPF bald

Existential IPF PPPs

Paraphrase: *There was/is etc. (at least) one event of this type.*

- (52) Vsego nagljadelsja – i golodal, i syt byval po gorlo,
 all.GEN saw.IPF.REFL and starved.IPF and full was.FREQ to neck
 i bit byl, i sam bil [...] *and beaten.IPF was and myself beat.PST.IPF*
 ‘I saw it all – I was starving, I was completely full, I was beaten, and I did the beating myself.’
- (53) Ne raz ja byl učen, molču i znaju [...] *not once I was lectured.IPF am-silent and know.1SG*
 ‘I was lectured not just once, I keep quiet and know ...’
- (54) Za čto neodnokratno byla bita [...] *for what not once was beaten.IPF.FEM.SG*
 ‘For which she was beaten more than once ...’

Alternative analysis in terms of habituality / non-uniqueness of events etc.; but then the existential IPF could also be subsumed under the notion of potential iterativity (*kratnost*’).

Existential IPF PPPs

Paraphrase: *There was/is etc. (at least) one event of this type.*

→ With negation: *There was/is etc. no event of this type.*

(55) [...] i ja uže ne byl zvan v gosti [...]

and I already not was called.IPF in guests

'And I was not invited anymore.'

(56) Mojka byla perepolnena nemytoj posudoj. Ne myto

sink was overfilled.PF unwashed.INSTR dishes.INSTR not washed.IPF

bylo davno.

was long-ago

'The sink was flowing over with unwashed dishes. The dishes hadn't

been done for a long time.'

→ We set aside existential IPF PPPs and move on to presuppositional IPF PPPs.

Summary of the corpus study

- There are IPF PPPs with compositional semantics in periphrastic passives (contra standard assumption).
- Hypothesis: Only factual IPF (presuppositional, existential)
- Analysis of presuppositional IPF PPPs:
 - A completed event is given in the context; it is backgrounded, part of the theme. → like a definite description
 - In focus: new information about the event (quasi-obligatory modifier)

Open issues (corpus study)

- Analysis of the further derivation, in particular the semantics of IPF
 - Analysis of existential IPF PPPs
 - Why do IPF PPPs occur so rarely?
 - Are factual IPFs that rare? (not our intuition)
 - Are passives that rare? (also not our intuition)
 - Why are there no secondary IPF PPPs?
 - Might make sense for presuppositional IPFs: the least marked verb form
 - But why also for existential IPF, especially if this use could be reduced to (potential) event plurality?
- Also:** Active factual IPF is possible with secondary imperfectives.
- Why no process meaning?

My own thoughts: Why no process meaning?

- **English and German** (verbal) passives can have a process meaning:
 - (57) a. The doors are/were being opened.
 - b. Die Türen werden/wurden gerade geöffnet.
 the doors become/became ADV opened
- **Division of labour in Russian?** (needs to be investigated)
 - Canonical IPF meanings with reflexive passives, non-canonical IPF meanings with periphrastic passives (Olga's idea)
 - If this is correct, is there a similar tendency in other languages that have both reflexive and periphrastic passives? (Spanish, Greek ...)
- **What about Czech?** (... a whole different research project)
 - No aspectual restrictions with either 'passives' (also other differences in aspect usage; e.g. Gehrke 2002)
 - Radek Šimík, p.c.: Czech IPF PPPs can have a process meaning.
 - Czech reflexive 'passive' might not be a true passive: no *by*-phrases (cf. Fehrmann et al. 2010; Schäfer 2016)

More on Backgrounding (with Olga)

Different explanations:

- **Presupposition** (as anaphor) (Geurts and van der Sandt 1997; Grønn 2004)
- **Givenness** (e.g. Krifka 2007)
- **Theme** (e.g. Vallduví 2016)

Krifka (2007)

- **Givenness:** The expression is in the immediate 'common ground' (CG).
 - Anaphoric expressions (incl. personal pronouns, demonstratives, definite article) signal that the referent is given.
 - Reduction of the prosodic realisation of expressions that are given in the immediate context:
Omission, deaccentuation, non-canonical word order

⇒ A large part of our IPF PPPs:
deaccentuation, marked word order

Vallduví (2016)

- A **theme** elaborates on the maximal 'question under discussion' (QUD) in context C; locus of discourse progression.
 - Typical example: Short answers
 - (58) - What are we having for dinner?
 - MUTTONBIRD.
 - The theme is the *replica* of the max-QUD (without elaborating fragments).
 - Main task: To prepare the context for an update
 - A theme is obligatory in contexts, in which the utterance elaborates a non-max-QUD (that is already part of the QUD set).
 - Utterances with a theme: Parallel to a definite description that specifies a non-local antecedent.
- ⇒ Events in presuppositional IPF PPPs are like definite descriptions.
- They signal under which file card / discourse referent the new information (focus, theme) should be stored.

E.g. context of our examples

- (59) Poslednej stupenju roskoši byl “ljuks”, gde razmesčali generalov i voobsče bol’šoe načal’stvo. Zdes’ byli fikusy, po verxnej kromke sten - zolotoj baget i pri každom nomere vanna. Vpročem, v letnie mesjacy voda šla redko, a kogda šla, to so svistom i soveršenno ržavaja, tak čto raznica meždu derevjannoj, kamennoj i “ljuksom” skazyvalas’ bol’še ne v byte, a v počete. Stroeno bylo èto vse ploxo, xromo, ščeljasto.

‘The last level of luxury was the “lux”, where generals and other big bosses were lodged. There were ficuses, on the upper edge of the walls - golden molding, and each room had its own bathroom. However, in the summer months there was often no water, and when there was, it came with a whistling noise and was absolutely rusty, so that the difference between a wooden (room), a stone (room) and a “lux” was not so much in the level of comfort, but in the honor. All that was built badly, lamely, with holes.’

E.g. context of our examples

- (60) The last level of luxury was the “lux”, where generals and other big bosses were lodged. There were fuses, on the upper edge of the walls - golden molding, and there was a bath in each room. However, in the summer months there was often no water, and when there was, it came with a whistling noise and was absolutely rusty, so that the difference between a wooden (room), a stone (room) and a “lux” was not so much in the level of comfort, but in the honor.

Stroeno bylo èto vse ploxo, xromo, ščeljasto. ‘All that was built badly, lamely, with holes.’

- Max-QUD: *What was the hotel like?*
 - Sub-QUD: Guests? Quality of the rooms? Decoration? Equipment? etc.
 - Sub-QUD that our example answers: *How was it built?*

The building event is not immediately relevant but the manner in which it was built (expressed by a modifier).

→ *The building event is part of the theme.*

References I

- Altshuler, D.: 2012, Aspectual meaning meets discourse coherence: A look at the Russian imperfective, *Journal of Semantics* **29.1**, 39–108.
- Altshuler, D.: 2013, There is no neutral aspect, *Proceedings of SALT 23*, pp. 40–62.
- Altshuler, D.: 2014, A typology of partitive aspectual operators, *Natural Language and Linguistic Theory* **32.3**, 732–775.
- Alvestad, S.: 2014, Fake imperfective imperatives in Slavic, in S. Ebeling, A. Grønn, K. Hauge and D. Santos (eds), *Corpus-based Studies in Contrastive Linguistics*, Oslo Studies in Language 6(1), pp. 29–42.
- Anagnostopoulou, E.: 2003, Participles and Voice, in A. Alexiadou, M. Rathert and A. von Stechow (eds), *Perfect Explorations*, Interface Explorations 2, de Gruyter, Berlin, pp. 1–36.
- Arregui, A., Rivero, M. and Salanova, A.: 2014, Cross-linguistic variation in imperfectivity, *Natural Language and Linguistic Theory* **32.2**, 307–362.
- Asher, N.: 2011, *Lexical Meaning in Context*, Cambridge University Press, Cambridge.
- Babby, L. and Brecht, R.: 1975, The syntax of Voice in Russian, *Language* **51.2**, 342–367.
- Borik, O.: 2002, *Aspect and Reference Time*, LOT Dissertation Series 64, LOT, Utrecht.
- Borik, O.: 2006, *Aspect and Reference Time*, Oxford University Press, Oxford.
- Borik, O.: 2013, Past participles and the eventive/adjectival passive in Russian, in E. Chemla, V. Homer and G. Winterstein (eds), *Proceedings of Sinn und Bedeutung 17*, semanticsarchive.net, pp. 115–132.

References II

- Borik, O.: 2014, The argument structure of long and short form adjectives and participles in Russian, *Lingua* **149B**, 139–165.
- Borik, O. and Gehrke, B.: 2018, Imperfective past passive participles in Russian, in D. Lenertová, R. Meyer, R. Šimík and L. Szucsich (eds), *Advances in formal Slavic linguistics 2016*, Language Science Press, Berlin, pp. 53–76.
URL: <http://langsci-press.org/catalog/book/189>
- Clark, H. and Haviland, S.: 1977, Comprehension and the given-new contrast, in R. Freedle (ed.), *Discourse production and comprehension*, Erlbaum, Hillsdale, NJ, pp. 1–40.
- Dickey, S. M.: 2000, *Parameters of Slavic Aspect: A Cognitive Approach*, CSLI Press, Stanford.
- Egg, M.: 2003, Beginning novels and finishing hamburgers, *Journal of Semantics* **20.2**, 163–191.
- Fehrmann, D., Junghanns, U. and Lenertová, D.: 2010, Two reflexive markers in Slavic, *Russian Linguistics* **34**, 203–238.
- Ferreira, M.: 2005, *Event Quantification and Plurality*, PhD thesis, MIT.
- Ferreira, M.: 2016, The semantic ingredients of imperfectivity in progressives, habituals, and counterfactuals, *Natural Language Semantics* **24.4**, 353–397.
- Filip, H.: 1999, *Aspect, Eventuality Types and Nominal Reference*, Garland Publishing, New York.
- Filip, H.: 2000, The quantization puzzle, in C. Tenny and J. Pustejovsky (eds), *Events as Grammatical Objects: The Converging Perspectives of Lexical Semantics and Syntax*, CSLI Publications, Stanford, CA, pp. 39–95.

References III

- Filip, H.: 2003, Prefixes and the delimitation of events, *Journal of Slavic Linguistics* **11.1**, 55–101.
- Forsyth, J.: 1970, *A Grammar of Aspect*, Cambridge University Press, Cambridge.
- Galton, H.: 1976, *The Main Functions of the Slavic Verbal Aspect*, Macedonian Academy of Sciences and Arts, Skopje.
- Gehrke, B.: 2002, Systemhafte Unterschiede im Aspektgebrauch zwischen dem Russischen und dem Tschechischen. Unpublished MA thesis, Humboldt University Berlin.
- Geurts, B. and van der Sandt, R.: 1997, Presuppositions and backgrounds, in P. Dekker, M. Stokhof and Y. Venema (eds), *Proceedings of the Eleventh Amsterdam Colloquium, December 17-20, 1997*, Institute for Logic, Language and Computation, Department of Philosophy, University of Amsterdam, pp. 37–42.
- Glovinskaja, M.: 1981, Obščefaktičeskoe značenie nesoveršennoogo vida (formy prošedšego vremeni), in V. Grigor'ev (ed.), *Problemy strukturnoj lingvistiki 1978*, Nauka, Moscow, pp. 108–125.
- Grøn, A.: 2004, *The Semantics and Pragmatics of the Russian Factual Imperfective*, PhD thesis, Oslo.
- Grøn, A.: 2015, On (in)definite tense and aspect in Russian, in G. Zybatow, P. Biskup, M. Guhl, C. Hurtig, O. Mueller-Reichau and M. Yastrebowa (eds), *Formal Description of Slavic Languages: Proceedings of FDSL 10, Leipzig 2013*, Linguistik International, Peter Lang, Frankfurt/M., pp. 175–196.

References IV

- Grønn, A. and von Stechow, A.: 2010, Complement tense in contrast: The SOT parameter in Russian and English, in A. Grønn and I. Marijanovic (eds), *Russian Contrast*, Oslo Studies in Language 2-1, pp. 1–45.
- Kamp, H. and Reyle, U.: 1993, *From Discourse to Logic: Introduction to Modeltheoretic Semantics of Natural Language, Formal Logic and Discourse Representation Theory*, Kluwer, Dordrecht.
- Klein, W.: 1995, A time-relational analysis of Russian aspect, *Language* **71**, 669–695.
- Knjazev, J.: 2007, *Grammatičeskaja Semantika: Russkij jazyk v tipologičeskoj perspektive*, Jazyki slavjanskix kul'tur, Moscow.
- Kratzer, A.: 2000, Building statives. Ms. University of Massachusetts at Amherst.
- Krifka, M.: 2001, For a structured meaning account of questions and answers, in C. Féry and W. Sternefeld (eds), *Audiatur Vox Sapientiae: A Festschrift for Arnim von Stechow*, Akademie-Verlag, Berlin, pp. 287–319.
- Krifka, M.: 2007, Basic notions of information structure, in I. C. Féry and M. Krifka (eds), *Interdisciplinary Studies on Information Structure 6*, Universitätsverlag, Potsdam, pp. 13–56.
- Landman, F.: 1992, The progressive, *Natural Language Semantics* **1**, 1–32.
- Lascarides, A. and Asher, N.: 1993, Temporal interpretation, discourse relations and commonsense entailment, *Linguistics and Philosophy* **16**, 437–493.

References V

- Maslov, J.: 1959, Glagol'nyj vid v sovremennom bolgarskom literaturnom jazyke, in S. Bernštejn (ed.), *Voprosy grammatiki bolgarskogo literaturnogo jazyka*, Nauka, Moscow, pp. 157–312.
- Mehlig, H.: 2001, Verbal aspect and the referential status of verbal predicates: On aspect usage in Russian who-questions, *Journal of Slavic Linguistics* **9**, 99–125.
- Mehlig, H.: 2013, Obščefaktičeskoe i edinično-faktičeskoe značenija nesoveršenogo vida v ruskom jazyke, *Vestnik Moskovskogo Universiteta Serija 9, Filologija* **4**, 19–47.
- Mueller-Reichau, O.: 2013, On Russian factual imperfectives, in U. Junghanns, D. Fehrmann, D. Lenertová and H. Pitsch (eds), *Formal Description of Slavic Languages: The Ninth Conference. Proceedings of FDSL 9, Göttingen 2011*, Linguistik International 28, Peter Lang, Frankfurt/M., pp. 191–210.
- Mueller-Reichau, O.: 2015, Pseudo-incorporation in Russian? Aspectual competition and bare singular interpretation, in O. Borik and B. Gehrke (eds), *The Syntax and Semantics of Pseudo-Incorporation*, Syntax and Semantics 40, Brill, Leiden, pp. 262–295.
- Mueller-Reichau, O. and Gehrke, B.: 2015, Event kind formation within the VP: Comparing Russian factual imperfectives and German adjectival passives, in G. Zybatow, P. Biskup, M. Guhl, C. Hurtig, O. Mueller-Reichau and M. Yastrebowá (eds), *Formal Description of Slavic Languages: Proceedings of FDSL 10, Leipzig 2013*, Linguistik International, Peter Lang, Frankfurt/M., pp. 367–382.
- Padučeva, E.: 1996, *Semantičeskie Issledovanija*, Škola 'Jazyki ruskoj kul'tury', Moscow.

References VI

- Paslawska, A. and von Stechow, A.: 2003, Perfect readings in Russian, in A. Alexiadou, M. Rathert and A. von Stechow (eds), *Perfect Explorations*, Mouton de Gruyter, Berlin, pp. 307–362.
- Pustejovsky, J.: 1995, *The Generative Lexicon*, MIT Press, Cambridge.
- Ramchand, G.: 2004, Time and the event: The semantics of Russian prefixes, *Nordlyd* 32.2, 323–361.
- Schäfer, F.: 2016, Two types of argument expletives: Evidence from *by*-phrases and object-drop. Paper presented at the *Workshop on Impersonality and Correlated Phenomena – Diachronic and Synchronic Perspectives*, Salzburg, November 2016.
- Schoorlemmer, M.: 1995, *Participial Passive and Aspect in Russian*, PhD thesis, Utrecht University.
- Smith, C. S.: 1991/97, *The Parameter of Aspect*, Kluwer, Dordrecht.
- Švedova, N. (ed.): 1980, *Russkaja Grammatika*, Nauka, Moscow.
- Tatevosov, S.: 2015, Severing imperfectivity from the verb, in G. Zybatow, P. Biskup, M. Guhl, C. Hurtig, O. Mueller-Reichau and M. Yastrebowa (eds), *Formal Description of Slavic Languages: Proceedings of FDSL 10, Leipzig 2013*, Linguistik International, Peter Lang, Frankfurt/M., pp. 465–494.
- Vallduví, E.: 2016, Information structure, in M. Aloni and P. Dekker (eds), *The Cambridge Handbook of Formal Semantics*, Cambridge University Press, Cambridge, pp. 728–755.
- Zaliznjak, A. and Šmelev, A.: 2000, *Vvedenie v Russkuju Aspektologiju*, Jazyki russkoj kul'tury, Moscow.