Chapter 5

"True" imperfectivity in discourse

Berit Gehrke

Humboldt-Universität zu Berlin

By taking into account the broader discourse structure, I show that a standard imperfective (IPFV) semantics can also account for cases in Russian where IPFV forms describe actually completed events, thereby refuting an analysis of such forms as "fake" IPFVs with a perfective (PFV) semantics. The proposed account captures the general intuition that the use of the IPFV is conditioned by a particular discourse structure, in which the event described is already part of the common ground, and the IPFV sentence elaborates on this event, zooming in on a narrower reference time. The proposal also has repercussion for definitions of the PFV and encourages us to take a closer look also at the role of PFV beyond the sentential level.

Keywords: Russian aspect, imperfective, perfective, discourse, general-factual, presupposition

1 Introduction

Cross-linguistically, the perfective aspect (PFV) is assumed to involve the event time (or situation time) being included in the reference time (or topic/assertion time), while with the imperfective aspect (IPFV), the reference time is taken to be included in the event time (e.g. Klein 1995 for Russian). This results in an external (PFV) or internal (IPFV) perspective on a given event, or in PFV and IPFV predicates denoting whole or partial events (e.g. Filip 1999, Altshuler 2014 for Russian). In addition, there is a common intuition that completed events involve PFV semantics. The notion of a "completed event" in this context is usually just an intuitive notion and never properly defined. Nevertheless, this intuition is commonly thought to be problematic for Russian, in which IPFV forms appear in descriptions of (intuitively) completed events, most famously in the so-called



Berit Gehrke. 2023. "True" imperfectivity in discourse. In Petr Biskup, Marcel Börner, Olav Mueller-Reichau & Iuliia Shcherbina (eds.), *Advances in formal Slavic linguistics* 2021, 119–143. Berlin: Language Science Press. DOI: 10.5281/zenodo.10123635

general-factual use. This has led Grønn (2015) to claim that the Russian IPFV is a "fake" IPFV in these contexts and to propose that IPFV forms in these contexts have a PFV semantics, thereby giving up on the otherwise attractive idea that (here: Russian) IPFV forms have a uniform IPFV semantics.

In this paper, I will argue that there is no "fake" IPFV in Russian but that a uniform semantics for IPFV forms succeeds if we take into account the discourse structure in which these forms occur. §2 provides background information on Russian aspect, characterises general-factual uses of the IPFV, and discusses prominent accounts of the semantics of IPFV that also aim at dealing with general-factuals. In §3, I will call into question the analytical move to take the intuition of event completion at the sentence level as a basis for analysing IPFV forms as involving PFV semantics; I will show that event non-completion is neither a necessary nor sufficient condition for the use of IPFV forms, and moreover, that event completion is not a necessary or sufficient condition for the use of PFV forms, either. In §4, I will demonstrate how we can still work with a "proper" IPFV semantics for the given IPFV forms when we take into account the discourse structure in which these forms occur. §5 concludes.

2 Grammatical aspect in Russian

This section provides background information on grammatical aspect in Russian, the canonical and non-canonical readings of the IPFV, in particular factual ones, and outlines recent proposals with a focus on how they deal with factual IPFVs.

2.1 Background on Russian aspect morphology

Like all Slavic languages, Russian has a grammatical category aspect. This means that a given verb form is either IPFV or PFV. Identical lexical meaning can be expressed by IPFV and PFV verb forms, and there is the common assumption that many verb(form)s come in aspectual pairs. The received view is that one type of aspectual pair is derived from simple IPFVs by so-called "empty" prefixes; see (1).

(1)	a.	IPFV pit' > PFV vy-pit'	'to drink'
	b.	IPFV risovat' > PFV na-risovat'	'to draw'

Another type of aspectual pair involves a suffix deriving an IPFV from a PFV; see (2).

(2)	a.	PFV pro-dat' > IPFV pro-da-va-t'	'to sell' (lit. through-give)
	b.	PFV ot-kryt' > IPFV ot-kry-va-t'	'to dis-cover, open' (lit. from-cover)
	c.	pfv dat' > ipfv da-va-t'	'to give'

Given that such suffixes most often attach to already prefixed verbs (but not always, see (2c)), the derivations involved are descriptively labeled SECONDARY IMPERFECTIVES (SI). There are other types of aspectual pairs, which I set aside for now, namely suppletive pairs that – at least from a synchronic point of view – are not morphologically transparent. I will also set aside (im)perfectiva tantum, which do not appear in aspectual pairs (arguably due to the lexical semantics of the predicates involved) (see, e.g., Isačenko 1962), as well as biaspectual verbs, for which the aspectual semantics is determined by context (see, e.g., Janda 2007).

We can already see from these few examples that there is no uniform morphology for (I)PFVs in Russian: IPFVs can appear without any aspectual affixes, such as those in (1) (SIMPLE IPFVs) or they can appear with a suffix and often also a prefix, such as those in (2) (SIS); PFVs can contain a prefix, such as those in (1), (2a), and (2b), or they can lack aspectual affixes altogether, such as the one in (2c). Nevertheless, native speakers clearly have an intuition what it means for a given verb form to be IPFV or PFV, and there are also diagnostics for (I)PFV forms. For example, only IPFV verb forms can derive a periphrastic future tense form (the future auxiliary in combination with the IPFV infinitive) (3a); phase verbs like *begin, start, continue, stop, finish* only combine with IPFV infinitives (3b).

(3)	a.	Ja budu {*pročitat' / čitat'} I will.1sg read.pfv read.1pfv 'I will read a/the book.'	U	
	b.	Ja načinaju {*pročitať	/ čitať } knigu.	
		I start.IPFV.PRS.1SG read.PFV.	INF read.IPFV.INF book.ACC	
		'I am starting to read a/the book.'		

The diagnostics are illustrated in (3) only for aspectual pairs with simple IPFVs and prefixed PFVs, but what is said here extends to other aspectual pairs as well (see, e.g., the discussion in Isačenko 1962, Borik 2002).

2.2 Canonical and non-canonical readings of the Russian IPFV

There are two "canonical" readings (or two groups of readings) that Russian IPFV forms give rise to; these readings are canonical because such readings are commonly attested for IPFV forms cross-linguistically (see, e.g., Deo 2009). The first

Berit Gehrke

canonical IPFV reading is a process/durativity reading, which for example is the reading expressed by the English Progressive, an instance of IPFV. This reading is illustrated for Russian in the main clause of (4).

(4) Kogda ja vošla, moj brat čital knigu. when I in.went.PFV my.NOM brother.NOM read.IPFV book.ACC 'When I came in, my brother was reading a book.'

The second canonical reading is that of iterativity/habituality, illustrated in (5).

(5) Ona každyj den' otkryvaet okno. she every day opens.si window.ACC 'She opens the window every day.'

This is not a reading that the English Progressive expresses primarily but it is a reading that IPFV forms in some other languages with grammatical aspect can give rise to. In Russian, whenever an event happened more than once (or potentially more than once), that is, whenever the reference does not involve a single event, the IPFV has to be used.¹

There are also non-canonical IPFV readings in Russian, i.e. readings that IPFV forms give rise to that are not common IPFV readings cross-linguistically, and outside of Slavic they might not even be attested. One family of such readings falls under the label GENERAL-FACTUAL (*obščefaktičeskoe*, after Maslov 1959), where IPFV forms can appear in contexts with typical PFV meanings, namely when referring to bounded "completed" events.² The literature on Russian aspect distinguishes at least two subtypes of the general-factual IPFV, the existential type (Padučeva 1996, Grønn 2004) and what Grønn calls the presuppositional type ("actional" in Padučeva 1996).

The EXISTENTIAL IPFV is illustrated in (6) (corpus example from Grønn 2004).

(6) Ne bylo somnenij, čto ja prežde vstrečal ee. not was.3sg.N doubt.GEN.PL that I before met.si her 'There was no doubt that I had met her before.'

In this example, the speaker asserts that he had a meeting with a female person in the past, and meetings in the past intuitively involve completed events that

¹A notable exception to this rule is the so-called vivid-exemplifying use of a PFV present tense form in habitual contexts that are clearly marked as such (see Zaliznjak & Šmelev 2000). I will set such cases aside.

²However, the traditional literature also discerns subtypes of the general-factual with intuitively non-completed events; I will come back to this in §3.3.

actually happened (at some time in the past). Nevertheless, we find an IPFV form here to describe such a meeting. More generally, the existential IPFV can be paraphrased as 'There has been/is/etc. (at least) one event of this type.' (following the idea that existential IPFVs involve event types or kinds; see Mehlig 2001, 2013, Mueller-Reichau & Gehrke 2015). So in this case the paraphrase would be 'There was at least one event of the type "meet her".'

In this paper, I will not discuss the existential IPFV in detail, but I assume that the reason why an IPFV form is used in existential contexts has to do with the fact that the event is not necessarily a single event and that we are dealing with potential iterativity (labeled *kratnost'* '(lit.) multiple-ness' in Padučeva 1996). As stated at the beginning of this section, iterativity is one of the canonical readings of the Russian IPFV, so an account of the existential IPFV can build on an account for why the IPFV appears in iterative contexts (e.g. in terms of unbounded event plurality, as in Ferreira 2005, Altshuler 2014). This also means that a semantic account of the PFV in Russian somehow has to build in a restriction to single events, rather than just the external perspective on an event.

The presuppositional IPFV is illustrated in (7) (from Glovinskaja 1982).

(7) Zimnij Dvorec stroil Rastrelli.
 winter.ADJ.ACC palace.ACC built.IPFV Rastrelli.NOM
 'It was Rastrelli who built the Winter Palace.'

The presuppositional IPFV (at least with telic predicates) is probably the most noteworthy mismatch between event completion and aspect usage in Russian. In our example at hand we are dealing with a single event that happened in the past, namely the building of the Winter Palace in Saint Petersburg (which hosts the Hermitage). It is a known fact that this event took place only once and that it was completed, because we can see the result in front of us. It is also known when this event happened. Nevertheless, an IPFV verb form is used to describe this event.

The presuppositional IPFV is used when it is already clear from the context that the event in question exists (this is why Grønn labels it presuppositional), and the sentence in which the IPFV form appears provides further information about this event. A suitable paraphrase is therefore 'The (already mentioned or contextually retrievable) event was/is/etc. such and such.' In our example, this means that context presupposes the existence of the event 'build Winter Palace', and the new information is that the architect of the building was Rastrelli. This use of the IPFV often goes hand in hand with a particular information structure, which is also evident in our example (and in the English translation I provided, a cleft construction): What is presupposed or backgrounded appears sentenceinitially (the building of the Winter Palace) and the new information in focus is Rastrelli, in sentence-final position, resulting in a non-canonical OVS order.

In the following, I will outline the conditions under which this use of the IPFV arises, building on Grønn (2004) (who, in turn, heavily builds on empirical generalisations in the Russian literature, e.g. Glovinskaja 1982, Padučeva 1996).

2.3 Presuppositional IPFVs: Grønn (2004)

Let us look at another example from Grønn (2004) to discuss empirical generalisations about presuppositional IPFVs, namely the chess example in (8).

(8)	Sdelav made.pfv.Ai			-	-	nič'ju] _{antecedent} . []	
	maue.prv.Al	' uns.aco	c move.ac	U I	onered.prv	ulaw.ACC	
	Navernjaka,	černye	deržat	tsja	[], no m	ne ne	
	probably	blacks.	лом hold-l	oack.1PF	/ but I.r	DAT not	
	xotelos'	na	činať s	četnuju	igru,	[poėtomu] _F ja	
	wanted.IPFV.REFL begin.IPFV calculating.ACC game.ACC therefore I						
	i [pr	edlagal	nič'ju] _{anap}	hora∙			
	and/also offered.si draw.Acc						
	'Having played this move, I offered a draw. Black can probably hold on,						
	but I didn't want to get involved in heavy calculations, and for this						
	reason, I off	ered a dı	aw.'	(a	fter Grønn 2	2004: 207; my glosses)	

In this example, the first sentence introduces a new event in the PFV (*predložil nič'ju* 'offered a draw'). The following discourse elaborates on the reason for offering a draw, and the last part of it states that for this reason (*poėtomu*) the draw was offered. This second mentioning of the event (offering a draw) is now described with an IPFV verb form (*predlagal*, the aspectual partner of *predložil*), and this is an instance of the presuppositional IPFV. The verb in this case is deaccentuated (see also Padučeva 1996), focus (indicated by the subscript F) is on some other constituent, in this case on *poėtomu* 'for this reason'. Grønn argues that the deaccentuation of the verb leads to the event given by the verb being backgrounded and to its prior instantiation being presupposed.

Following Geurts & van der Sandt (1997), Grønn (2004) treats presuppositions as anaphora that are either directly bound in the discourse, as in (8) (the antecedent for the IPFV *predlagal* is the PFV *predložil* in the first sentence of the example), or contextually derivable, as in (9).

[ot"ezd](pseudo-)antecedent (9) Dlja bol'šinstva znakomyx vaš acquaintants.gen your.nom departure.nom for majority stal polnoj neožidannosť ju ... Vv became.pfv full.instr unexpectedness.instr you.nom [uezžali]_{anaphora} v Ameriku [ot čego-to, k čemu-to ili že away.drove.si in America.Acc from what-to to what-to or prt prosto voznamerilis' spokojno provesti tam buduščuju simply decided.PFV calmly spend.INF.PFV there future.ADJ.ACC starost']_F? old-age.Acc '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?' (after Grønn 2004: 207f.; my glosses) In this example we do not have a direct finite PFV antecedent to the presuppositional IPFV *uezžali* 'departed': instead, a nominalisation based on a related verb

tional IPFV *uezžali* 'departed'; instead, a nominalisation based on a related verb, *ot"ezd* 'departure', serves as what Grønn labels pseudo-antecedent in the previous discourse. Again, the presuppositional IPFV verb form is deaccentuated and focus lies on the questions for the reasons for the departure.

To illustrate Grønn's account of the presuppositional IPFV let us look at his analysis of (10) (attributed to Forsyth 1970).

(10) V ėtoj porternoj ja [...] napisal pervoe ljubovnoe pis'mo. in this tavern I wrote.PFv first.Acc love.Adj.Acc letter.Acc
Pisal [karandašom]_F. wrote.IPFv pencil.INSTR
'In this tavern I wrote my first love letter. I wrote it with pencil.'

Grønn's DRT analysis of the VP of the second sentence of (10) is given in (11).³

(11) $\lambda e[x | \text{INSTRUMENT}(e, x), \text{PENCIL}(x)]_{[|\text{WRITE}(e)]}$

Grønn argues that the VP is divided into background and focus (following Krifka 2001), where backgrounded material is turned into a presupposition, following

³DRT is the abbreviation of Discourse Representation Theory (see Kamp & Reyle 1993). Grønn employs a linear notation for Discourse Representation Structures (DRSs), where discourse referents are written on the left-hand side, before | (in a traditional DRS they appear at the top of the DRS), and the conditions on these discourse referents are listed to the right of |, separated by commas (which in a different notation can be translated as conjunctions).

the Background/Presupposition Rule in Geurts & van der Sandt (1997). In Grønn's DRT analysis, backgrounded material is subscripted in the DRS, so in this example the writing event itself is backgrounded and presupposed in the discourse. This VP gets further embedded under Aspect and Tense, which is where my proposal will differ from Grønn's proposal, but up to this point I will follow his account of presuppositional IPFVS.

What is the semantics of the (I)PFV then? In the following, I will discuss various proposals in light of how they deal with existential and presuppositional IPFVs.

2.4 The semantics of Russian aspect: Some proposals

As outlined in the introduction, common approaches to the semantics of Russian aspect treat it as a relation between reference/assertion time and some other temporal interval (e.g. Klein 1995, Schoorlemmer 1995, Borik 2002, Paslawska & von Stechow 2003, Grønn 2004, 2015, Ramchand 2008, Tatevosov 2011, 2015) or as an event predicate modifier, in the opposition of total vs. partial events (e.g. Filip 1999, Altshuler 2014). The most common approach is to provide a positive definition only of the PFV and to treat the IPFV as (semantically) "unmarked" $(-PFV \text{ or } \pm PFV)$, but some approaches also provide a positive definition of the IPFV. One of the main motivations for treating the IPFV as unmarked is precisely the general-factual IPFV. Most agree that PFV forms always express a uniform PFV meaning, for example that the event time is included in the reference time. There is more disagreement with respect to the question whether IPFV forms come with a uniform IPFV meaning. Setting aside explicitly modal definitions of the IPFV, such as Arregui et al. (2014), who argue that different IPFV readings come about due to different modal bases, let me outline four representative types of proposals.

Borik (2002) argues that the meaning of the IPFV is the negation of the positive definition of the PFV, as illustrated in (12).

(12) a.
$$S \cap R = \emptyset \& E \subseteq R$$

b. $\neg (S \cap R = \emptyset \& E \subseteq R) = S \cap R \neq \emptyset \lor E \nsubseteq R$ IPFV

The PFV is defined as a conjunction of two conditions that have to be met (12a): The speech time S must not overlap with the reference time R, and the event time E is included in the reference time. Negating this conjunction leads to a disjunction for the IPFV in (12b): Speech time and reference time overlap, or the event time is not included in the reference time. This disjunction captures what Borik labels the "progressive" reading of the IPFV (when the event time is not included

in the reference time) as well as what she labels the "present perfect" reading, which is essentially the existential IPFV reading outlined in the previous section (speech time and reference time overlap). Borik explicitly sets habitual and iterative readings of the IPFV aside, but we could assume that they can be incorporated along the lines of other proposals in the literature. What is problematic for her account, though, is that it leaves the presuppositional IPFV unaccounted for.

Grønn (2004) and Altshuler (2014) provide weak positive definitions for the IPFV that get pragmatically/contextually strengthened in different directions. Building on Klein (1995), Grønn (2004) argues that the IPFV involves the event time overlapping with the reference time ($e \circ t$). This weak semantics gets pragmatically strengthened to a "proper" IPFV (the reference time is included in the event time), or to an actual PFV semantics (the event time is included in the reference time), which, he argues, happens in the case of factual IPFVs. Grønn takes into account the role of information structure to characterise the contexts in which strengthening happens in one or the other direction.

Altshuler (2014) provides the definition of the IPFV in (13), according to which the IPFV denotes an event e' that is a stage of an event e that exists in world w (where the current world of e' is w*) and that has the property P.⁴

(13) IPFV
$$\rightsquigarrow \lambda P \lambda e' \exists e \exists w [\text{STAGE}(e', e, w^*, w, P)]$$

A stage of an event is defined as in (14), building on Landman's (1992) definition of the English Progressive.⁵

- (14) $[[STAGE(e', e, w^*, w, P)]]^{M,g} = 1$ iff (a)-(d) hold:
 - a. the history of g(w) is the same as the history of $g(w^*)$ up to and including $\tau(g(e'))$
 - b. g(w) is a reasonable option for g(e') in g(w*)
 - c. $[\![P]\!]^{M,g}(e,w) = 1$
 - d. $g(e') \subseteq g(e)$

This is essentially an account of IPFV events as denoting partial events, and to capture what it means for an event to be a partial event (and notably also to capture the imperfective paradox), the definitions of stages and histories of events

⁴I render Altshuler's (2014) original formalisations, which use indirect translation. Otherwise, I use direct translations in this paper, and where not directly relevant I omit worlds and assignment functions.

⁵Note that with respect to the condition in (14d), Altshuler (2014) deviates from Landman (1992) and defines the English Progressive as a proper part relation, as he views this to be the crucial difference between Russian (part-of-relation) and English (proper-part relation). Landman, on the other hand, employed the weaker part-relation for the Progressive.

in (14a)–(14c) are needed. For our purposes, however, the essential part of the definition is given in (14d), according to which the event description in question is part of or equals the whole event. Altshuler argues that this can get pragmatically strengthened to a proper part meaning for the ongoing IPFV ($g(e') \subset g(e)$), or it can get strengthened to g(e') = g(e), which essentially says that the partial event is identical to the whole event. In particular this last type of strengthening gives rise to the presuppositional IPFV reading. Altshuler does not address existential IPFVS (but see Altshuler 2012), but again this use arguably follows from a full account of habituality and iterativity. He argues that the use of IPFV for habitual event descriptions is captured by assuming a theory of plural events, following Ferreira (2005).

Finally, Grønn (2015) departs from his earlier work and proposes that IPFV forms can express both IPFV (the reference time is included in the event time) and PFV semantics (the event time is included in the reference time), as in (15).

(15) a.
$$\llbracket PFV \rrbracket = \lambda t \lambda e[e \subseteq t]$$

b. $\llbracket IPFV_{\text{ongoing}} \rrbracket = \lambda t \lambda e[t \subseteq e]$
c. $\llbracket IPFV_{\text{factual}} \rrbracket = \lambda t \lambda e[e \subseteq t]$ "Fake" IPFV

Grønn calls the IPFV that has the same semantics as the PFV in (15c) a "fake" IPFV. The existence of $IPFV_{factual}$ alongside the PFV, he argues, leads to an aspectual competition. In the default case the PFV appears but in certain contexts, he argues, the $IPFV_{factual}$ wins the competition. This gives rise to the presuppositional IPFV in cases where narrative progression is to be avoided (under the assumption that the PFV always leads to narrative progression). The existential IPFV appears when the reference time is too large for the perfective semantics to be informative.

Grønn's (2015) account essentially gives up on the idea that the Russian IPFV can have a uniform semantics. Altshuler's (2014) account provides a weak semantics for the IPFV. Both delegate the role of distinguishing between different IPFV readings to pragmatics and to the context. In this paper, I will equally take into account the role of context, but I will explore how far we can take a strong, positive definition of the IPFV while still accounting for the occurrence of the presuppositional IPFV. In particular, I will argue that we can stick to a "proper" IPFV semantics, as opposed to a weak semantics or even a PFV semantics, if we take the discourse and information structural cues into account. First, however, I will show that taking the intuitive notion of event completion as a crucial indicator for the right formal account of the semantics of aspect in Russian is misleading.

3 The focus on event completion is misleading

As discussed in the previous section, the fact that intuitively completed events can be described by IPFV forms has led to semantic accounts of the IPFV that give it a rather weak semantics (Grønn 2004, Altshuler 2014) or even argue that it can express both PFV and IPFV meanings (Grønn 2015). In this section, I will show that event non-completion is indeed neither a necessary nor a sufficient condition for an IPFV form to arise, just as we would expect from an account like Grønn's, which takes the intuitive notion of event completion as its starting point. We have already discussed factual IPFVs in the previous section, and further contexts to be addressed here involve chains of foregrounded events in habitual contexts and in the historical present, as well as the "annulled result" reading, which is sometimes considered a subtype of the factual IPFV. However, I will also show that event completion (as an intuitive notion) is neither a necessary nor a sufficient condition for a PFV form to arise. This is the case with PFV forms with the prefixes *po*- and *pro*-, as well as with the last event in a unique chain of foregrounded events.

If event completion is taken as a key notion or intuition behind the definition of the PFV, these examples are problematic. Instead, I will argue that the intuitive notion of event completion is not useful, at least not at the sentence level, since at this level we are interested in the particular description of events and make assertions that hold during particular reference time intervals, without making any claims about the actual events being completed or not. If we compare this with the nominal domain, we can also have complete entities, for example chairs and tables, but we can also choose to describe only parts of these in a particular sentence. The intuitive notion of event completion can still be relevant at the discourse level, however, and this is precisely what I will argue for in this paper. A main conclusion from this section will be that the discourse structure plays a crucial role in the choice of aspect in Russian (see also Altshuler 2012).

I will first discuss the use of IPFVs with completed events, then move on to the use of PFVs with non-completed events. At the end of the section, I will point out that general-factual readings also arise in the absence of intuitively completed events, which shows that giving factual IPFVs a PFV semantics will not work in these cases. What all these examples aim to show is that in contexts in which the IPFV occurs despite the intuition that the event is completed, other than the factual IPFV, there is an explanation for the use of the IPFV that still falls within a "proper" IPFV semantics. It is only for factual IPFVs that authors like Grønn (2015) depart from such a semantics. This conclusion will serve as a point of departure for §4, in which I will argue that also these can be accounted for with a "proper" IPFV semantics.

Berit Gehrke

3.1 IPFV with completed events

Let us take a look at (16) (discussed in Gehrke 2002, 2022).

(16)Ona prixodila ko mne každvj den', a ždať ja ee she.NOM to.went.SI to me every day and wait.INF.SI her.GEN I [...] Za desjat' minut načinal s utra. ia sadilsia k minutes I down.sat.si to began.si from morning.GEN within ten okoncu i načinal prislušivat'sja, ne stuknet li vetxaja window and began.si listen.inf.si not clatters.pres.pfv prt old.nom kalitka. 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)

The whole passage in (16) is explicitly marked as habitual by *každyj den'* 'every day' in the first sentence. There are four foregrounded events (*prixodila* 'arrived', *načinal ždat'* 'started to wait', *sadilsja* 'sat down', *načinal prislušivat'sja* 'started to listen'), out of which at least two (the first and the third) are intuitively completed, before the other two start. Nevertheless, these verb forms are IPFV (SIS) and the PFV would even be infelicitous in this context.⁶ However, these IPFVs are generally not treated as cases of "fake" IPFV because the common explanation for the occurrence of the IPFV here is that habituality requires IPFV forms. I do not want to dispute this explanation, I just want to point out that event completion does not play a crucial role here for the choice of aspectual form.

Similarly, event completion does not seem to play a role in passages in the historical present. The historical present is a stylistic device in narratives, and in these contexts Russian cannot use PFV forms (with the caveat mentioned in fn. 1). One such example is given in (17).

(17) [...] les končilsja, neskol'ko kazakov vyezžajut iz nego forest.NOM end.PFV.PST some cossacks out.ride.SI.PRS out it

⁶Note that other Slavic languages might be different in this respect. For example, in a Czech translation of (16), the third form is translated with a PFV verb (habituality in this language does not require IPFV), and this might indicate that event completion does play a bigger role here. For further discussion of differences in aspect usage between Russian and Czech see Gehrke (2002, 2022); for a description of cross-Slavic differences in general, see Dickey (2000).

na poljanu, i vot, vyskakivaet prjamo k nim moj on field and there out.jump.SI.PRS directly to him my.NOM Karagez; vse kinulis' za nim s krikom [...] Karagez.NOM all.NOM.PL rush.PFV.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)

In this example there is again a chain of completed events, in particular the riding out of the forest (*vyezžajut*) and the jumping out (*vyskakivaet*), as a reaction to the first event, but these are nevertheless described with IPFV forms. Again, nobody calls these forms "fake" IPFVs, instead an alternative explanation is provided for why the historical present is incompatible with a PFV semantics (e.g. that a true present tense semantics is incompatible with the event time being part of the reference time).⁷

Finally, let us look at the example in (18) (after Smith 1991/1997: 311), which illustrates the use of the IPFV where the result is "annulled".

(18) K vam kto-to prixodil. to you someone to.went.si 'Someone came to you.' (The person is not there anymore.)

In this example there is an intuitively completed event, and the IPFV is used to signal that the result state of this event (someone being there) does not hold anymore at the time of utterance. While Grønn (2004, 2015) subsumes cases like these under the notion of factual IPFVs and therefore would also treat them as "fake" IPFVs,⁸ it is again clear that the role that these IPFVs play in discourse is crucial and we might want to look at an alternative explanation for the use of the IPFV in such contexts in Russian.

3.2 **PFV** with non-completed events

Let me then move on to PFV forms that can be used to describe non-completed events. It is well-known that in chains of foregrounded single events Russian

⁷See Anand & Toosarvandani (2019) for a recent account of the historical present, which is incompatible also with the Progressive in English even in contexts where an ongoing event is described.

⁸Treatments of such cases as a type of general-factual IPFV can also be found in the Slavistic traditional literature; e.g. Padučeva (1996) calls this meaning *dvunapravlennoe obščefaktičeskoe* 'bi-directed general-factual', especially with motion verbs, as in (18).

requires PFV verb forms for reference time movement (in the sense of Kamp & Reyle 1993) (see also Borik 2002). This is also true for the last event in the chain, even if this event is not necessarily completed, as illustrated in (19).

(19) No v tot že mig vspomnil svoj dom i but in this PRT moment remembered.PFV his.REFL.ACC house.ACC and gor'ko {zaplakal / *plakal}.
bitterly ZA.cried.PFV cried.IPFV
'But at that moment he remembered his home and wept bitterly.' (grammatical version from http://skazbook.ru/vodyanoi)

In this example the crying starts right after the remembering, but the crying itself does not necessarily have to be completed. In all likelihood we are just witnessing the beginning of the crying here. While some authors try to reason that the actual event described is precisely the onset and not the crying itself and that this warrants the use of the PFV (see, for instance, Ramchand 2008), descriptions and intuitions about such ingressive events suggest that the event in focus is the crying itself, including its process, not so much its onset, and that intuitively this event is not or at least does not have to be completed. Nevertheless the PFV is and has to be used. Furthermore, the example in (20) (discussed in Dickey 2000: 224 and attributed to Švedova & Trofimova 1983) shows that several such PFV verbs with the ingressive prefix *za-* in a row can be intepreted as "actions beginning simultaneously".

(20) Fljagin vyšel: Čto tut načalos'! Zagudeli, Fljagin.NOM out.went.PFV what.NOM then began.PFV ZA.hooted.PFV.PL zavorčali, zakričali. ZA.grumbled.PFV.PL ZA.shouted.PFV.PL
'Fljagin went out. And what began then! They started hooting, grumbling and shouting.'

What all these examples show is that event (non-)completion is not (necessarily) decisive for the choice of (I)PFV in a given sentence and should therefore not play the central role in formal semantic accounts of (I)PFV, at least not at the sentence level. Instead we need to pay closer attention to the discourse structure and to the role that (I)PFV forms play in discourse.

3.3 General-factual IPFV without completed events

Finally, merely treating factual IPFVs as "fake" IPFVs with a PFV semantics is missing an important insight from the Russian traditional linguistic literature (e.g. Glovinskaja 1981, Padučeva 1996). In particular, this literature discusses different subtypes of factual IPFVs, including some that appear with intuitively "incomplete" events. For example, Padučeva (1996) differentiates between resultative factual uses (the cases of existential IPFVs we have discussed so far), bi-directed factual uses (of the type in (18)), as well as non-resultative (*nerezul'tativnoe*) and atelic (*nepredel'noe*) factual IPFVs.⁹ The latter two are illustrated in (21).

(21)	a.	Ja ugovarival ee vernut'sja.			
		I convinced.si her return.inf.pfv			
		'I convinced (tried to convince) her to return.'	(Padučeva 1996: 22)		
	b.	Ja vas ljubil.			
		I you.acc loved.ipfv			
		'I loved you.'	(Padučeva 1996: 32)		

In the non-resultative factual IPFV in (21a) it remains open whether the speaker succeeded in convincing the person referred to by 'her', which could be made explicit by adding 'tried to' to the translation. The atelic factual IPFV in (21b), in turn, is the famous first line of a poem by Puškin, which continues with *ljubov' ešče, byt' možet, v duše moej ugasla ne sovsem* 'it is possible that in my soul this love is not yet completely extinguished', and this continuation makes explicit the effect of the atelic factual IPFV: it remains open whether the state described still holds at the moment of utterance. Both types share with the "resultative" factual IPFV (which for Padučeva involves existential IPFVs) that the time in the past at which these events or states held is not specific and that the relation to the current time of utterance is unclear; the first example furthermore involves potential iterativity.

These examples 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 IPFV form. However, they still constitute a different IPFV "reading" than process or habituality, and we would want to know more about these readings rather than just treating one subset of factual IPFVs as "fake", thereby ignoring these other cases that share important similarities. Calling factual IPFVs "fake" IPFVs and giving them the same semantics as PFV is missing the point.

How can we account for the semantics of factual IPFVs then? The following section will provide an explicit account of presuppositional IPFVs that employs a standard IPFV semantics and takes into account information structural cues

⁹Recall that she treats presuppositional IPFVs as distinct from other factual IPFVs, under the label *akcional'noe* 'actional'.

and the discourse.¹⁰ Event completion will be shown not to play a role at the sentence level, but at the discourse level the intuition of event completion will still be captured.

4 A discourse semantic account of presuppositional IPFVs

As the previous section showed, Russian aspectual forms play a crucial role in discourse (see also Altshuler 2012), which can easily be overlooked if one simply stays at the sentential level. Following Grønn (2004), I assume that presuppositional IPFVs are anaphorically linked to a previously introduced event in the ideal case, or that the presupposition that the event is already given in the context has to be accommodated. In particular, I propose that a presuppositional IPFV introduces an eventive discourse referent that is identified with another eventive discourse referent already introduced in previous discourse. This proposal directly builds on the treatment of individual pronouns and definite descriptions in the nominal domain in discourse semantic accounts, such as Kamp & Reyle (1993) and Lascarides & Asher (1993). In terms of discourse relations that hold between events, in the case of presuppositional IPFVs we are intuitively dealing with ELAB-ORATION. In Lascarides & Asher's system of rhetorical relations between events described in two clauses α and β , where the former precedes the latter, Elaboration holds when β 's event is part of α 's. So at this point Altshuler's (2014) partitive semantics is more promising than Grønn's (2004) weak IPFV semantics as mere temporal overlap or even Grønn's (2015) PFV semantics. Altshuler himself suggests in his discussion of the example in (10) ((97) in Altshuler 2014: 769) that Elaboration is the discourse relation involved and that pragmatic strengthening of the part relation to an equal-relation leads to both events being identical. In this paper, I propose to go a step further and work with a proper part semantics from the start, thereby abandoning the need for pragmatic strengthening. Instead, I will argue that event identity follows from the information structural cues, along the lines of what was proposed in Grønn (2004).

4.1 First attempt

As an empirical point of departure for illustrating how a proper part semantics coupled with standard discourse semantic assumptions will account for the presuppositional IPFV, I will use data from a corpus study with Olga Borik (Borik &

¹⁰As stated before, I will leave existential IPFVs aside and assume that an account for the use of IPFV in habitual and iterative contexts and the requirement of a single event for the PFV will play a role here; see Gehrke (2022) for further discussion.

Gehrke 2018). In this study we show that IPFV past passive participles (PPPs) in Russian, which are often claimed not to exist (at least from a synchronic point of view), are attested in corpora, and that they can be given a compositional semantics and are not just frozen forms. The corpus study results indicate important restrictions though: First, there are no secondary IPFV PPPs, and second – more importantly for our purposes – there are no IPFV PPPs with a process meaning. Our hypothesis was that IPFV PPPs are always factual, and we particularly focussed on presuppositional IPFV PPPs, like the one in (22) (from Borik & Gehrke 2018).

(22) Čto kasaetjsa platy deneg, to plačeny byli naličnymi what concerns payment money.GEN so paid.IPFV were in.cash šest' tysjač rublej [...] six.NOM thousand Rubles
 'What concerns the payment: 6000 Rubles were paid in cash.'

In this example, the payment event is first introduced by a nominalisation (*plata* 'payment'), and the IPFV PPP in the main clause links back to this already introduced event. The marked word order and the most natural way to read this example also indicate a marked information structure: the paying event appears in the beginning of the sentence and is backgrounded, focus lies on the sentence-final subject and (possibly also) on the modifier ('6000 Rubles (in cash)').

Let us work with a proper part semantics for the IPFV and build on independently motivated and received assumptions about discourse semantics. A first attempt, employing a linear notation of DRT (recall fn. 3) but leaving the division into background/presupposed and focused material implicit, is in (23).

(23) $[e_1, e_2, t, n, x | \text{payment}(e_1), \text{pay}(e_2), e_2 = e_1,$ Theme $(e_2, x), 6,000 \text{R}(x), \text{in-cash}(e_2), t \subset \tau(e_2), t < n]$

The DRS keeps track of various discourse referents and conditions on these, as follows. *Plata* 'payment' is an event nominal that introduces the event discourse referent e_1 . Since it is a non-finite (i.e. tenseless) verb form, I assume that there is no reference time and no temporal trace related to it; I will get back to this.¹¹ The event described by the IPFV PPP is represented by e_2 , and this event description is treated like a definite description that is anaphorically linked to e_1 ($e_2 = e_1$), along the lines of the DRT treatment of definite descriptions in the nominal domain.¹²

¹¹The temporal trace of an event is represented as $\tau(e)$, following Krifka (1998).

¹²I assume that, due to the information structure involved, a prior step involves Grønn's (2004) account for the VP domain, as outlined in §2; in this section I already take this step for granted and outline the following step in which information structural cues have already been resolved.

The new information in focus is about e_2 , and since e_2 is identical to e_1 it is also about e_1 : the theme of e_2 is '6,000 Rubles' and this was paid 'in cash' (treated as an event modifier). Following Kamp & Reyle (1993), the semantic contribution of past tense is that it introduces a reference time interval *t* that is before now (t < n). The crucial condition now is that we analyse IPFV with a proper part semantics, which I treat as a temporal relation: the reference time interval *t* is properly included in the run time of e_2 ($t \subset \tau(e_2)$).

If we still wanted to capture the intuition that the actual paying event was completed, at least in the overall discourse, this analysis does not succeed, because the antecedent (or pseudo-antecedent) for the factual IPFV is not a finite verb form but a nominalisation. In the next section, I will make a second attempt, in order to see if we can remedy this potentially intuitive shortcoming.

4.2 Second attempt

If we wanted to directly capture the intuition that in the overall discourse the event referred to by the nominalisation is completed, we would have to reconstruct a PFV semantics for the nominalisation, along the lines of (24).

(24)
$$[e_1, e_2, t_1, t_2, n, x | \text{payment}(e_1), \text{pay}(e_2), \text{theme}(e_2, x), 6,000R(x), \text{in-cash}(e_2), e_2 = e_1, \tau(e_1) \subset t_1, t_2 \subset \tau(e_2), t_2 < n]$$

What is new now is that we add a new discourse referent t_1 to the DRS, which serves as a reference time for e_1 (the event discourse referent introduced by the nominalisation). We furthermore reconstruct a PFV semantics for this nominalisation, since this would represent our intuition that the event is completed: the run time of e_1 is properly included in the reference time t_1 ($\tau(e_1) \subset t_1$).

However, we now face new problems. Since nominalisations are non-finite, t_1 is not related to n; intuitively it is before n, but this would be a second reconstruction. Furthermore, without this reconstruction, we do not know how t_1 and t_2 are related (with it, it will work as in §4.3). More generally, we do not know whether we want to associate nominalisations with temporal traces to begin with – this might at most make sense for complex event nominals (in the sense of Grimshaw 1990) but not necessarily for nominalisations in general. It is also not clear why we would associate nominalisations with a particular aspect semantics; intuitively we want a PFV semantics here because intuitively the event is completed. However, Russian nominalisations do not come in aspectual pairs, which could be taken as evidence for nominalisations lacking a functional projection associated with Aspect (AspP), as argued, for instance, by Schoorlemmer (1995). So why associate them with (I)PFV semantics at all?

I do not think our first two attempts at a formalisation should make us want to give up on the idea that we can have an IPFV semantics for factual IPFVs in a given sentence, while still capturing the overall intuition at the discourse level that the actual event was completed. I think it rather shows that in the cases where we have to accommodate a discourse referent, as in the case with nominalisations (if we follow Grønn's 2004 reasoning), we will also have to accommodate more information that is otherwise contributed by tense and aspect. A full-fledged theory of accommodation would have to address this, but I will not attempt to do this in this short contribution.¹³ Instead, in the following, I will explore what happens if the discourse does contain a PFV antecedent that explicitly provides the antecedent for the factual IPFV.

4.3 The account: The zooming-in function of presuppositional IPFVs

In order to work with an example with a finite PFV antecedent for the presuppositional IPFV, I constructed an example that is not attested in the corpus, unlike (22), but which is still a fully acceptable discourse, namely (25).¹⁴

- (25) a. Zaplatili. Plačeny byli naličnymi šest' tysjač rublej. paid.3PL.PFV paid.IPFV were in-cash six.NOM thousand Rubles 'They paid. It was paid 6,000 Rubles in cash.'
 - b. $[e_1, e_2, t_1, t_2, n, x | PAY(e_1), \tau(e_1) \subset t_1, t_1 < n, PAY(e_2), THEME(e_2, x), 6,000R(x), in CASH(e_2), e_2 = e_1, t_2 \subset \tau(e_2), t_2 < n]$

 (i) a. I tak napisano, čto mnogie rasplakalis' – krovju duši and so written.N.SG.PFV that many.NOM started.crying.PFV blood.INSTR soul.GEN pisano.
 written.N.SG.IPFV

'It was written so that many started to cry, it was written with the blood of the soul.'

b. $[e_1, e_2, t_1, t_2, n, x | \text{WRITE}(e_1), \tau(e_1) \subset t_1, t_1 < n, \text{WRITE}(e_2), \\ \text{BLOOD-OF-SOUL}(x), \text{INSTRUMENT}(e_2, x), e_2 = e_1, t_2 \subset \tau(e_2), t_2 < n]$

¹³Olav Mueller-Reichau (p.c.) suggests that the completedness intuition might be captured by assuming that presupposed entities are whole entities (unless there is evidence to the contrary), because they are listed as items on file cards.

¹⁴This is not to say that there are no such examples in the corpus, it is just that presuppositional IPFVs quite often require accommodation rather than true antecedents, so I wanted to address the general issue of how do deal with accommodation. An example from the corpus with a PFV antecent and an analysis that works just like (25b) is the following.

Under the analysis in (25b), there is a paying event e_1 , introduced by the PFV verb form in the first sentence: its run time, $\tau(e_1)$, is properly included in the reference time t_1 (the semantics of PFV), which is before n(ow) (the semantics of past tense). The analysis for the second sentence does not differ from the second attempt: The presuppositional IPFV PPP introduces a second paying event e_2 , which is anaphorically linked to e_1 , i.e. $e_2 = e_1$. The new information about this event is that its theme is 6,000 Rubles and it was paid in cash. The IPFV semantics specifies that there is a second reference time, t_2 , which is properly included in the run time of the event, $\tau(e_2)$, and past tense indicates that this reference time is before the time of utterance.

At this point, a proponent of the "fake" IPFV analysis might object and say that the IPFV semantics for e_2 in the second sentence still does not directly capture that the paying event was completed. This is indeed true, but only at the sentence level. However, it follows from the discourse structure as a whole: Event completion information is already given in the first sentence about e_1 (its run time falls within the first reference time t_1). Since e_2 equals e_1 , the actual event of paying remains completed. Furthermore, the second reference time, t_2 , is properly included in the run time of e_2 , and therefore it is also properly included in the run time of e_1 (since e_2 is identical to e_1). By transitivity, t_2 must also be properly included in the first reference time, t_1 . The effect of the presuppositional IPFV, then, is that it is used to zoom in on a narrower reference time within a bigger reference time; the link between the two reference times t_1 and t_2 is only indirect, via the events involved, but it can still be made. The assertion that the sentence with the presuppositional IPFV makes, then, is only for part of the bigger reference time and only for part of the actual event, and this is what is captured by the IPFV semantics. This is precisely what we expect if the event description provided by the presuppositional IPFV merely elaborates on the first event.

There are at least two advantages of this proposal over Grønn's (2015) "fake" IPFV account. First, it can easily be extended to atelic and non-resultative subtypes of the presuppositional IPFV, which are well discussed in the descriptive literature (recall the discussion in §3.3). For Grønn such subtypes would not involve "fake" IPFVs (with a PFV semantics) and would thus not be analysed along the same lines, even though some of these (the presuppositional ones) share the same information structural properties and anaphoric link to previously introduced events (these events are just not completed, in this intuitive sense). Second, we maintain a uniform semantics for IPFV verb forms.

The gist of the proposal treats presuppositional IPFVs as a special case of the ongoing reading of IPFVs, since both involve the reference time being properly included in the run time of the event. The ongoing reading is analysed as a proper-

part-relation by Altshuler (2014) as well, but under his account both readings (presuppositional and ongoing) are arrived at only after pragmatically strengthening the weaker partitive semantics he proposes for the IPFV. The two readings end up with a different strengthened semantics since for him the result of pragmatic strengthening with presuppositional IPFVs is identity of the two events (recall the discussion in §2.4). In contrast, the current proposal starts out with the stronger IPFV semantics, which is the same as under the ongoing reading; identity of the two events follows from the information structural cues that build an anaphoric link to the previously introduced (or accommodated) event, just like what we find with definites in the nominal domain. Thus, by taking the information structural cues already identified by Grønn (2004) as a point of departure to spell out a discourse semantic account that integrates independently proposed assumptions about definites and anaphoric relations in discourse, event identity is the result of the discourse structure and not of pragmatic strengthening of the IPFV semantics.

5 Conclusion

In this paper I argued that an analysis of factual IPFVs as "fake" IPFVs, assigning them a PFV semantics, is misguided by the strong focus on event completion. I claimed that taking the intuitive notion of "completed" events as a central ingredient of the semantic definition of the (I)PFV aspect at the sentential level is misleading because there are numerous mismatches between (I)PFV forms and (in)complete events in the actual world. Rather, since we are primarily concerned with the way we describe a given event (with aspectual forms) in a given sentence and such descriptions can also involve descriptions of parts of events, the intuition of event completion could also be delegated to the level of the discourse. I argued that by taking into account the discourse structure it is possible to provide a strong IPFV semantics for presuppositional IPFVs, which therefore turn out to be "true" IPFVs: they elaborate on a part of a previously introduced event.

There are remaining issues for future research. For one, I have not addressed other subtypes of the factual IPFV, such as the existential IPFV or the annulled result cases (if these are indeed subcases). However, I am confident that a fullfledged account of habituality and iterativity, coupled with the single event requirement for PFVs and possibly further discourse semantic considerations, will work for existential IPFVs. Annulled results also point to a discourse function that needs to be explored further. A second area for further investigation arises because the proposed analysis crucially builds on there being a finite PFV antecedent. What do we do with non-finite antecedents (e.g. nominalisations) which

Berit Gehrke

- at least in Russian - do not come in a particular aspect? And finally, how do we handle accommodation, which is similar to bridging in the nominal domain (see discussion in Borik & Gehrke 2018)?

Abbreviations

1	first person	NOM	nominative case
3	third person	PFV	perfective
ACC	accusative case	\mathbf{PL}	plural
ADJ	adjective	PRS	present tense
AP	adverbial participle	PRT	particle
DAT	dative case	PST	past tense
GEN	genitive case	REFL	reflexive
IPFV	imperfective	то	specific indefinite marker -to
INF	infinitive	SG	singular
INSTR	instrumental case	SI	secondary imperfective
F	focus	ZA	inchoative/ingressive prefix za-
Ν	neuter		

Acknowledgements

Thanks to Olav Mueller-Reichau and two anonymous reviewers for comments on an earlier version of this paper. All remaining errors are, of course, my own.

References

- Altshuler, Daniel. 2012. Aspectual meaning meets discourse coherence: A look at the Russian imperfective. *Journal of Semantics* 29.1. 39–108. DOI: 10.1093/jos/ffr008.
- Altshuler, Daniel. 2014. A typology of partitive aspectual operators. *Natural Language & Linguistic Theory* 32.3. 732–775. DOI: 10.1007/s11049-014-9232-1.
- Anand, Pranav & Maziar Toosarvandani. 2019. No explanation for the historical present: Temporal sequencing and discourse. *Proceedings of Sinn und Bedeutung* 22(1). 73–90. DOI: 10.18148/sub/2018.v22i1.66.
- Arregui, Ana, María Luisa Rivero & Andrés Salanova. 2014. Cross-linguistic variation in imperfectivity. *Natural Language & Linguistic Theory* 32.2. 307–362. DOI: 10.1007/s11049-013-9226-4.

- Borik, Olga. 2002. *Aspect and reference time* (LOT Dissertation Series 64). Utrecht: LOT.
- Borik, Olga & Berit Gehrke. 2018. Imperfective past passive participles in Russian. In Denisa Lenertová, Roland Meyer, Radek Šimík & Luka Szucsich (eds.), *Advances in formal Slavic linguistics 2016*, 53–76. Berlin: Language Science Press. DOI: 10.5281/zenodo.2546440.
- Deo, Ashwini. 2009. Unifying the imperfective and the progressive: Partitions as quantificational domains. *Linguistics and Philosophy* 32.5. 475–521. DOI: 10. 1007/s10988-010-9068-z.
- Dickey, Stephen M. 2000. *Parameters of Slavic aspect: A cognitive approach*. Stanford, CA: CSLI Press.
- Ferreira, Marcelo. 2005. *Event quantification and plurality*. Cambridge, MA: MIT. (Doctoral dissertation).
- Filip, Hana. 1999. *Aspect, eventuality types and nominal reference*. New York, NY: Garland Publishing.
- Forsyth, James. 1970. A grammar of aspect: Usage and meaning in the Russian verb. Cambridge: Cambridge University Press.
- Galton, Herbert. 1976. *The main functions of the Slavic verbal aspect*. Skopje: Macedonian Academy of Sciences & Arts.
- Gehrke, Berit. 2002. Systemhafte Unterschiede im Aspektgebrauch zwischen dem Russischen und dem Tschechischen. Berlin: Humboldt-Universität zu Berlin. (MA thesis).
- Gehrke, Berit. 2022. Differences between Russian and Czech in the use of aspect in narrative discourse and factual contexts. *Languages* 7(2). 155. DOI: 10.3390/languages7020155.
- Geurts, Bart & Rob van der Sandt. 1997. Presuppositions and backgrounds. In Paul Dekker, Martin Stokhof & Yde Venema (eds.), *Proceedings of the eleventh Amsterdam Colloquium, December 17–20, 1997*, 37–42. University of Amsterdam: Institute for Logic, Language & Computation, Department of Philosophy.
- Glovinskaja, Marina Ja. 1981. Obščefaktičeskoe značenie nesoveršennogo vida (formy prošedšego vremeni). In Viktor P. Grigor'ev (ed.), *Problemy strukturnoj lingvistiki 1978*, 108–125. Moscow: Nauka.
- Glovinskaja, Marina Ja. 1982. Semantičeskie tipy vidovyx protivopostavlenij russkogo glagola. Moscow: Nauka.
- Grimshaw, Jane. 1990. Argument structure. Cambridge, MA: MIT Press.
- Grønn, Atle. 2004. *The semantics and pragmatics of the Russian factual imperfective*. Oslo: University of Oslo. (Doctoral dissertation).

- Grønn, Atle. 2015. On (in)definite tense and aspect in Russian. In Gerhild Zybatow, Petr Biskup, Marcel Guhl, Claudia Hurtig, Olav Mueller-Reichau & Maria Yastrebowa (eds.), *Slavic grammar from a formal perspective: The 10th anniversary FDSL conference, Leipzig 2013*, 175–196. Frankfurt/M.: Peter Lang.
- Isačenko, Aleksandr V. 1962. *Die russische Sprache der Gegenwart: Formenlehre.* Halle (Saale): Niemeyer.
- Janda, Laura A. 2007. What makes Russian bi-aspectual verbs special? In Dagmar Divjak & Agata Kochanska (eds.), *Cognitive paths into the Slavic domain*, 83– 110. Berlin/New York: Mouton de Gruyter. DOI: 10.1515/9783110198799.2.83.
- Kamp, Hans & Uwe Reyle. 1993. From discourse to logic: Introduction to modeltheoretic semantics of natural language, formal logic and Discourse Representation Theory. Dordrecht: Kluwer. DOI: 10.1007/978-94-017-1616-1.
- Klein, Wolfgang. 1995. A time-relational analysis of Russian aspect. *Language* 71(4). 669–695. DOI: 10.2307/415740.
- Krifka, Manfred. 1998. The origins of telicity. In Susan Rothstein (ed.), *Events and grammar*, 197–235. Dordrecht: Kluwer. DOI: 10.1007/978-94-011-3969-4_9.
- Krifka, Manfred. 2001. For a structured meaning account of questions and answers. In Caroline Féry & Wolfgang Sternefeld (eds.), Audiatur vox sapientiae: A Festschrift for Arnim von Stechow, 287–319. Berlin: Akademie-Verlag. DOI: 10.1515/9783050080116.
- Landman, Fred. 1992. The progressive. *Natural Language Semantics* 1(1). 1–32. DOI: 10.1007/BF02342615.
- Lascarides, Alex & Nicholas Asher. 1993. Temporal interpretation, discourse relations and commonsense entailment. *Linguistics and Philosophy* 16(5). 437–493. DOI: 10.1007/BF00986208.
- Maslov, Jurij S. 1959. Glagol'nyj vid v sovremennom bolgarskom literaturnom jazyke. In Samuil B. Bernštejn (ed.), *Voprosy grammatiki bolgarskogo literaturnogo jazyka*, 157–312. Moscow: Nauka.
- Mehlig, Hans Robert. 2001. Verbal aspect and the referential status of verbal predicates: On aspect usage in Russian who-questions. *Journal of Slavic Linguistics* 9(1). 99–125.
- Mehlig, Hans Robert. 2013. Obščefaktičeskoe i edinično-faktičeskoe značenija nesoveršennogo vida v russkom jazyke. *Vestnik Moskovskogo Universiteta Serija 9, Filologija* 4. 19–47.
- Mueller-Reichau, Olav & Berit Gehrke. 2015. Event kind formation within the VP: Comparing Russian factual imperfectives and German adjectival passives. In Gerhild Zybatow, Petr Biskup, Marcel Guhl, Claudia Hurtig, Olav Mueller-Reichau & Maria Yastrebowa (eds.), *Slavic grammar from a formal perspective:*

The 10th anniversary FDSL conference, Leipzig 2013, 367–382. Frankfurt/M.: Peter Lang.

- Padučeva, Elena V. 1996. Semantičeskie issledovanija. Moscow: Škola 'Jazyki russkoj kul'tury'.
- Paslawska, Alla & Arnim von Stechow. 2003. Perfect readings in Russian. In Artemis Alexiadou, Monika Rathert & Arnim von Stechow (eds.), *Perfect explorations*, 307–362. Berlin: Mouton de Gruyter. DOI: 10.1515/9783110902358.307.
- Ramchand, Gillian C. 2008. Perfectivity as aspectual definiteness: Time and the event in Russian. *Lingua* 118(11). 1690–1715. DOI: 10.1016/j.lingua.2007.03.008.
- Schoorlemmer, Maaike. 1995. *Participial passive and aspect in Russian*. Utrecht: Utrecht University. (Doctoral dissertation).
- Smith, Carlota S. 1991/1997. *The parameter of aspect*. Dordrecht: Kluwer. DOI: 10. 1007/978-94-011-5606-6.
- Švedova, Lilija N. & Tamara G. Trofimova. 1983. Posobie po upotrebleniju vidov glagola dlja raboty s filologami-rusistami. Moscow: Russkij jazyk.
- Tatevosov, Sergei. 2011. Severing perfectivity from the verb. *Scando-Slavica* 57. 216–244.
- Tatevosov, Sergei. 2015. Severing imperfectivity from the verb. In Gerhild Zybatow, Petr Biskup, Marcel Guhl, Claudia Hurtig, Olav Mueller-Reichau & Maria Yastrebowa (eds.), *Slavic grammar from a formal perspective: The 10th anniversary FDSL conference, Leipzig 2013*, 465–494. Frankfurt/M.: Peter Lang.
- Zaliznjak, Anna A. & Aleksej D. Šmelev. 2000. Vvedenie v russkuju aspektologiju. Moscow: Jazyki russkoj kul'tury.