

Chapter 42

Aspect and finiteness

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Abstract to be filled in

Keywords: Aspect, Tense, finiteness, participles, nominalisations

1 Introduction

This paper departs from the well-known fact that, while all Slavic languages have a grammatical category Aspect in the sense that each verb form (in a given context) is either perfective (PFV) or imperfective (IPFV) and Aspect distinctions are commonly correlated with verbal affixes, there is considerable variation in the way Aspect is used (e.g. [Dickey 2000](#)). Focusing on differences between Czech and Russian, I will add a new observation, namely that empirical findings from sequence of event readings, nominalisations, and past passive participles in participial passive constructions suggest that Czech fulfils its full functional potential in both finite and non-finite contexts, whereas Russian Aspect only does so in finite contexts. This leads to the question, to be explored in this paper, about the connection between Aspect and finiteness more generally, and why – if the empirical observation is correct – it is more crucial for Russian than for Czech Aspect.

The paper is structured as follows. §2 describes general cross-Slavic differences in the use of Aspect, whereas §3 zooms in on three contexts (sequences of events, nominalisations, participial passives), in which there seems to be a contrast between Czech and Russian in the way Aspect interacts with finiteness. §4 brings together different ideas from the (morpho-)syntactic and semantic literature (the diachrony of the past tense, tense morphology, TP, Aspect vs. Tense

semantics) that can ultimately serve as starting points for an analysis of the interaction between Aspect and finiteness, and why it is different in Czech vs. Russian. Finally, §5 concludes.

2 Cross-Slavic variation in aspect

Despite the fact that all Slavic languages morphologically distinguish between PFV and IPFV verb forms, it is well-known that the use of these forms only partially overlap when one compares different Slavic languages. In particular Czech and Russian differ to quite some extent, as table 1 shows for some often-described contexts (see, e.g., Eckert 1984; Stunová 1993; Dickey 2000; 2015; Gehrke 2002; 2022; Dübbers 2015: and references cited therein).

Table 1: Some aspectual differences between Czech and Russian

	CZECH	RUSSIAN
Sequences of single events (past)	IPFV, PFV	(almost excl.) PFV
Iterativity, habituality (past, present)	IPFV, PFV	(almost excl.) IPFV
Historical Present	IPFV, PFV	(almost excl.) IPFV
Running instructions & commentaries	IPFV, PFV	(almost excl.) IPFV

As the table shows, there are contexts in which Czech can use both aspects, whereas Russian uses just one or the other. In particular, in sequences of single events Russian almost exclusively employs PFV verb forms (I will discuss relevant data in §3.1), but as soon as we are not dealing with single events anymore but with iterativity or habituality, or we are in the present tense, as with the historical present and with running instructions, Russian uses the IPFV.

Dickey (2015), building on his earlier work (Dickey 2000), postulates a “Slavic East-West Division” in Aspect use. In a cognitive semantic framework, Dickey (2000) proposes that in the Western Aspect type, with the prototype Czech, PFV relates to totality, whereas IPFV expresses quantitative temporal indefiniteness. In contrast, in the Eastern Aspect type, with its prototype Russian, PFV is argued to be related to temporal definiteness, IPFV to qualitative temporal indefiniteness.¹ Table 2 summarises some broader empirical claims Dickey (2015) makes for the two types.

¹Dickey (2015) argues that Bulgarian and Macedonian mostly belong to the Eastern type, with some deviations, whereas BCMS and Polish are taken to be transitional zones, tending towards the Western and Eastern type, respectively.

Table 2: “Slavic East-West Division” (after [Dickey 2015](#))

	WEST: Czech, Slovak, Sorbian, Slovenian	EAST: Russian, Ukrainian, Belarusian
Functional scope of PFV	maximal	minimal
IPFV general-factual	minimal usage	maximal usage
Productive delimitative <i>po-</i>	no	yes
Productive distributive <i>po-</i>	yes	no
Préverbe vide	<i>s-/z-</i>	<i>po-</i>

For example, it is argued that the functional scope of the PFV is minimal in the Eastern type because, as we saw in table 1, there are a number of contexts that require the IPFV, unlike what we find in the Western type. He also notes differences in the use of particular prefixes, such as *po-*, which is quite productive in the Eastern type to temporally delimit events and therefore to signal, directly on the verb form, that we are dealing with an event in a sequence (see §3.1 for examples), whereas this use in Czech is rather limited.

There are only few existing formal-semantic accounts for some of the differences ([Alvestad 2013](#); [Mueller-Reichau 2018](#); [to appear](#); [Klimek-Jankowska 2022](#)), and most of them address the so-called general-factual use of the IPFV only (first described by [Maslov 1959](#): for Bulgarian and Russian). This is the use of the IPFV in contexts, in which it is either asserted that (at least) one event of the type in question exists (the “existential” IPFV), or in contexts in which the existence of the event in question is presupposed and further information about this event is given (the “presuppositional” IPFV) (see also [Grønn 2004](#)). The IPFV is used in such contexts even when it is intuitively clear that the actual event is “completed” (whatever this intuitive notion amounts to, though event completion is not necessary), and this use is more widespread in, e.g., Russian than in, e.g., Czech (see, e.g., [Dickey 2000](#); [Gehrke 2002](#); [2022](#); [Dübbers 2015](#)).

In this paper, I will not provide a general formal-semantic account of cross-Slavic variation in Aspect use. Rather, I want to draw attention to a factor that has not been addressed in previous literature and that might play a role in several contexts for which differences between Czech and Russian have been described: the factor finiteness.

- b. Chvíli zaraženě mlčel, sledoval plující
 while.ACC confused.ADV was.silent.IPFV followed.IPFV swimming.ACC
 měsíc za mříží, a pak se zeptal: [...]
 moon.ACC behind bars and then REFL inquired.PFV
 ‘He was confusedly silent, follows the moon swimming behind the
 bars, and then inquired: ...’ (Czech)

In the Russian original in (1a), we have two finite PFV verb forms in a sequence of single events (‘was silent’, ‘(started to) speak’). There is an additional event of watching the moon that is simultaneous and backgrounded to the first event of being silent; this event is described by a non-finite verb form, an adverbial participle. In the Czech translation in (1b), all three verb forms are finite, with the first two being IPFV (‘was silent’, ‘followed’) and the last one being PFV (‘inquired’). The fact that the last event picks up the SOE is contextually indicated by the addition of *pak* ‘then’, which is absent from the original.

Sequences of habitual events, in turn, look more or less the same in Czech, whereas in Russian, the finite verb forms are IPFV now, because Russian in most cases cannot use PFVs for the description of habitual events:

- (2) a. [...] ale potom, když Nora změnila se i ve hře, tak
 and then when Nora.NOM changed.PFV REFL also in play then
 maminka otci hrozila rozvodem, hrozila, že
 mom father.DAT threatened.IPFV divorce.INSTR threatened that
 jej opustí, a tatínek se uklidnil, až se
 him leaves.PFV and dad REFL calmed.down.PFV until REFL
 přečetl v divadelní knížce, že to je její úloha v posledním
 read.PFV in theater.ADJ booklet that this is her role in last
 jednání, že to tak maminka nemyslí.
 act that this so mom NEG.thinks.IPFV
 ‘But then when Nora [character in a play the mother played in]
 changed in the play, then mom threatened dad with a divorce,
 threatened him that she would leave him, and dad only calmed down
 when he read in the theatre booklet that that was her role in the last
 act, that mom did not think that.’ (Czech)
- b. [...] no zatem, po mere togo kak charakter ee geroini
 but then as that how character her heroine.GEN
 menjalsja, prinimalas’ grozit’ emu razvodom i
 changed.IPFV proceeded.SI threaten.IPFV.INF gun divorce.INSTR and

(Dickey 2000) shows that Czech regularly derives such nominals from both aspects so that it has “true” aspectual pairs also in the nominal domain. The aspects contribute essentially the same meanings as with finite verb forms (e.g. IPFV ongoing vs. PFV “completed” event). This is different in Russian, where we usually get a nominalisation only from one or the other aspectual partner, and there is no predictable aspectual meaning (see also Schoorlemmer 1998; Pazelskaya 2012). This is illustrated in (3) (see Dickey 2000: ch. 9).

- (3) ‘realise, execute’ > ‘realisation, execution’
- a. pfv. provést / ipfv. provádět
 > pfv. provedení / ipfv. provádění (Czech)
- b. pfv. osuščestvit’ / ipfv. osuščestvljat’
 > osuščestvlenie/*osuščestvljanie (Russian)

Hence, we again have a non-finite domain, in which Aspect in Russian does not function the same as in finite domains, whereas in Czech Aspect fulfils the same functions as in finite contexts.

A common syntactic approach to deal with variation across and within languages with respect to data like these is to postulate that nominalisations can take smaller or bigger verbal structures as their input (see, e.g., Alexiadou 2010: and references cited therein). For Russian, it has been argued both that nominalisations can contain Aspect (e.g. Asp(ect)P) (e.g. Pazel’skaja & Tatevosov 2008) or (more commonly) that they cannot (Schoorlemmer 1995; Tatevosov 2008b).³ Schoorlemmer, for example, argues for the absence of AspP in Russian nominalisations based on the fact that they do not express typical (I)PFV readings

³Tatevosov (2011) uses data from nominalisations to argue for an “Aspect-high” theory, according to which the aspectual morphology on Russian verbs does not constitute direct correlates of (I)PFV operators, because the relevant morphemes are also found in forms that lack grammatical Aspect, such as nominalisations. Instead, he argues, (I)PFV are silent operators inserted in AspP in the appropriate contexts (see also Tatevosov 2015).

In fact, it is common to not directly associate aspectual morphemes with grammatical Aspect itself, as it has been argued that e.g. prefixes fall into different subgroups (internal/lexical vs. external/superlexical, vs. intermediate), with internal prefixes usually linked to resultativity or similar concepts (e.g. Babko-Malaya 1999; Svenonius 2004; Di Sciullo & Slabakova 2005; Gehrke 2008; Tatevosov 2008a; Biskup 2019). There is more debate about some (but certainly not all) external prefixes as potential exponents of PFV in, e.g., Russian but not Czech (see, e.g., Gehrke 2008), or of the imperfectivising suffix as a direct exponent of IPFV Aspect (see, e.g., Ramchand 2008: on Russian), but both are types of views that Tatevosov (2011; 2015) explicitly argues against. In this paper, I remain agnostic as to the precise analysis (Aspect high or low) and will continue to talk about (I)PFV verb forms (morphologically) that correlate with (I)PFV semantics in finite contexts in Russian, and in both finite and non-finite contexts in Czech.

opposed to the acceptable active SI counterpart, whereas (9) provides examples for factual IPFV PPPs (from [Borik & Gehrke 2018](#)).

- (8) Storož {otkryval / otkryl} vorota. (Russian)
 watchman.NOM opened.SI opened.PFV gates.ACC
 ‘A/The watchman was opening/opened a/the gate.’
 a. Vorota byli otkryty storožem.
 gates.NOM were open.PFV.PPP watchman.INSTR
 ‘A/The gate was opened by a/the watchman.’
 b. *Vorota byli otkryvany storožem.
 gates.NOM were open.SI.PPP watchman.INSTR
- (9) a. Bylo pito, bylo edeno, byli slezy
 was drink.IPFV.PPP.N.SG was eat.IPFV.PPP.N.SG were tears
 proliity.
 pour.PFV.PPP.PL
 ‘(Things) were drunk, (things) were eaten, tears were shed.’
 EXISTENTIAL
- b. Pisano èto bylo Dostoevskim v 1871 godu [...]
 write.IPFV.PPP.N.SG that was Dostoevskij.INSTR in 1871 year
 ‘That was written by Dostoevskij in 1871.’ PRESUPPOSITIONAL
 (Russian)

In Czech, there is no discussion of Aspect in PPPs that would suggest that it functions differently than in other (finite or non-finite) forms, and one finds both IPFV and PFV, as well as SI examples in these works (e.g. [Petr 1986](#); [Veselovská & Karlík 2004](#); [Karlík 2017](#); [Biskup 2019](#); [Caha & Taraldsen Medová 2020](#)).⁶ To test that there is really no difference in Aspect use in PPPs as opposed to other contexts, I took data from [Karlík \(2017\)](#) and tested them for Aspect interchangeability and (I)PFV readings. The results suggest that Czech PPPs are regularly derived from both aspects with predictable Aspect meaning. So again, there is a non-finite domain, in which Aspect plays the same role in Czech as it does in finite contexts, whereas in Russian it is different again.⁷

Let us first look at the PPP of an activity predicate in combination with a present tense form of ‘be’ (10) (from [Karlík 2017](#): my glosses).

⁶[Biskup \(2019\)](#) even provides examples with (presumably) external prefixes.

⁷In a corpus study comparing Polish and Russian, [Wiemer et al. \(2023\)](#) observe that Polish PPPs also appear regularly in both aspects, there are also SI PPPs, and we get the full range of IPFV readings with such PPPs. They furthermore note that before the 19th century there were instances of SI PPPs in Russian, so their disappearance is a fairly recent development.

- (10) Žák je chválen (učitelem). (Czech)
 student.NOM is praise.IPFV.PPP teacher.INSTR

According to my Czech consultants, the IPFV PPP in this example expresses an ongoing or regular reading, which is a typical IPFV reading. They note that it is interchangeable with a PFV PPP as well (11a), and Petr Biskup (p.c.) states that we get a (resultative) perfect reading in this case, which is a typical reading that PPPs can have in many languages (see, e.g., Kratzer 2000: on German). A habitual reading is possible with the frequentative suffix *-va* on ‘be’ in combination with either IPFV or PFV PPP (11b)–(11c).

- (11) a. Žák je pochválen (učitelem). (Czech)
 student.NOM is praise.PFV.PPP teacher.INSTR
 b. Žák bývá chválen (učitelem).
 student.NOM is.FREQ praise.IPFV.PPP teacher.INSTR
 c. Žák bývá pochválen (učitelem).
 student.NOM is.FREQ praise.PFV.PPP teacher.INSTR

In comparison with Russian, this is quite interesting because while Russian ‘be’ in principle allows for a frequentative form (*by-va-t’*) this form would not be used as the auxiliary in combination with a PPP.⁸

Karlík’s (2017) example in (12) (my glosses) contains a PFV PPP in combination with past tense ‘be’.

- (12) O tom bylo rozhodnuto (delegáty) včera. (Czech)
 about that was decide.PFV.PPP delegates.INSTR yesterday

According to the Czech consultants, the PFV PPP expresses a “completed” reading, which is a typical PFV reading. Furthermore, they stated that it would be odd to replace *včera* ‘yesterday’ by *často* ‘often’ in combination with a PFV PPP but that this would become fully acceptable with the frequentatively marked auxiliary *bývalo*. The IPFV (SI) PPP *rozhodovano* in this example would express that

⁸Veselovská (2008) argues for three distinct types of ‘be’ in Czech and shows, for instance, that the frequentative suffix cannot appear on the past tense and conditional auxiliary ‘be’, whereas it can appear on other ‘be’-auxiliaries (as in the passive) as well as on the copula. Given that the examples in (??) and (??) also contain a referential ‘by’-phrase, I assume we are still dealing with the auxiliary here (and not with a copula). However, more detailed syntactic distinctions between different kinds of auxiliaries as those described in Veselovská (2008) should ultimately be of interest also to the questions I am dealing with in this paper.

there was some deliberation but that the decision was not finished, again something we would expect from an IPFV/SI form. With *často*, a habitual reading is also possible, with or without *bývalo*.

Finally, let us take a look at some of *Karlík's* (2017) examples with verbs of creation in combination with present tense 'be', such as (13) (my glosses).

- (13) a. Škola je stavěna (zedníky). (Czech)
 school.NOM is build.IPFV.PPP mason.INSTR.PL
 b. Je psána stížnost.
 is write.IPFV.PPP complaint

For (13a), the Czech consultants noted that the IPFV PPP in combination with either present or past tense 'be' expresses an ongoing reading, and with a plural subject a habitual reading is also possible. A PFV PPP in combination with present tense 'be' results in a job-done reading, which is a typical adjectival passive reading (see *Kratzer 2000*), and in combination with past tense 'be', we get a "completed" reading. Again, these are typical (I)PFV readings, with the caveat that resultative readings of PPPs in adjectival passives are also available. Finally, it was stated that frequentative 'be' in combination with a PFV PPP (*bývá postavena*) was odd with singular 'school', but becomes acceptable with plural subject ('school buildings are regularly finished'). Similar judgments were given for (13b).

In sum, unlike in Russian, Czech PPPs are derived from both aspects, with predictable Aspect meaning, and in some cases also adjectival passive readings. Additional factors that play a role for the precise (I)PFV reading include the verb class, tense on the auxiliary, additional adverbials and/or frequentative marking on 'be'. These are the same factors that play a role in other contexts, though, whether they are finite or non-finite, as we have already briefly seen in §3.1 in the discussion of SOE interpretations.

There is a further point in which PPPs and SOE readings work differently in Czech and Russian. *Schoorlemmer (1995)* observes that in Russian, the obligatory SOE interpretation we find in the active (14a) disappears with periphrastic passives (14b) (*Schoorlemmer 1995: 257f.*).

- (14) a. Maša vymyla posudu, nalila čaj i pozvala
 Maša.NOM washed.PFV dishes.ACC poured.PFV tea.ACC and called.PFV
 sem'ju.
 family.ACC
 'Maša did the dishes, (then) poured tea, and (then) called her family.'

- b. Mašej byla vymyta posuda, nalit čaj i Maša.INSTR was wash.PFV.PPP dishes.NOM pour.PFV.PPP tea.NOM and pozvana sem'ja.
called.PFV family.NOM
'The dishes were washed, the tea poured, and the family called by Maša.'

(Russian)

She argues that Russian PPPs are always resultative and give rise to the “Perfect Effect”. Therefore, we only get three events completed at some time before S(peech time) in (14a), and the precise order in which these events happened or whether they happened simultaneously is not specified. Again, we have a contrast between the way Aspect functions in finite vs. non-finite contexts.

When we compare this to Czech, we observe that the SOE interpretation is just one possible interpretation of either active or passive (depending on the context and on world knowledge) (Denisa Lenertová, Radek Šimík, p.c.), and relevant examples are given in (15).

- (15) a. Marta vyplnila žádost, zaplatila zdravotní Marta.NOM in.filled.PFV form.ACC paid.PFV health.ADJ.ACC pojištění a koupila jízdenky.
insurance.policy.ACC and bought.PFV tickets.ACC
'Marta filled in a/the form, paid for a/the health insurance policy and bought (the) tickets.'
- b. Koordinátorkou byla vyplněna žádost, zaplacenó coordinator.INSTR was in-fill.PFV.PPP form.NOM pay.PFV.PPP zdravotní pojištění a koupeny jízdenky.
health.ADJ.NOM insurance.policy.NOM and buy.PFV.PPP tickets.NOM
'A/The form was filled in, a/the health insurance policy was paid, and (the) tickets were bought by a/the coordinator.'

(Czech)

Thus, there is no substantial difference between finite and non-finite forms in this respect, and this is in line with the general trend we already saw in §3.1: SOE readings in Czech are contextually conditioned.

3.4 Interim summary

Table 3 summarises the findings concerning the role of finiteness for Aspect in Czech and Russian.

Table 3: Finiteness differences between Czech and Russian

	Czech	Russian
SOE	contextual	finite, active (I)PFV
Nominalisations	PFV, IPFV	“aspectually neutral” (Dickey 2000)
PPPs	PFV, IPFV	PFV forms
	all ipfv forms/readings	only simple & factual IPFVs

What we saw in this section is that in Czech, Aspect fulfils its full functional potential in both the finite and non-finite domain. In Russian, on the other hand Aspect is not fully functional in the non-finite domain. Thus, there seems to be a closer connection between Aspect and finiteness in Russian than in Czech. Let us then turn to finiteness in these languages.

4 Why finiteness?

It is standardly assumed that finiteness is associated with the T(ense)P layer, where tense information is provided and e.g. person/number agreement with the subject takes place (see, e.g., Pitsch 2015: for recent discussion). Furthermore, a common view is that Tense/TP expresses a relation between R(eference time) (or topic/assertion time) and S(peech) time (or utterance time), whereas Aspect/AspP relates E(vent time) (or situation time) and R(eference time) (e.g. Reichenbach 1947; Klein 1995; Demirdache & Uribe-Etxebarria 2000).

However, there are some accounts that depart from such standard assumptions. For example, Cable (2013) discusses temporal remoteness morphemes in Gikūyū that have a tense semantics but directly restrict E, rather than R. Furthermore, Lin (2006) argues that Chinese, in the absence of dedicated tense morphemes, lacks a TP layer altogether so that features typically associated with temporal information are located in Asp instead. Similarly, Todorović (2016) argues for all Slavic languages, except for Bulgarian and Macedonian, that there is no true tense morphology and therefore no TP either (in analogy to the lack of DP described for these languages in various works). She proposes that tense semantics can be derived from inner/outer aspect and modals. At the same time, she notes that there is actually no consensus as to what “finiteness” actually is.

Hence, it might make sense to explore similar ideas for Czech and Russian and depart from the possibly oversimplifying standard view we started out with and to furthermore question what finiteness even is. In the following, I will try

to explore this issue further, also taking into account existing formal semantic approaches to cross- and within-Slavic variation in Aspect use, as well as the diachrony of past tenses in these languages.

4.1 Tense or no Tense in Czech and/or Russian?

The verb forms that form part of or make up what I have labelled “finite past tense” forms in §3, so-called *l*-participles, were initially part of periphrastic perfect tenses (present, past, future), as well as of other periphrastic verb forms that I will not go into here. However, in most contemporary Slavic languages (e.g. Czech, Polish, Russian), except for Bulgarian, Macedonian, Sorbian, and some Serbian dialects, which all retained the additional aorist/imperfect distinction in the past tense domain, these forms are the only “past tense” forms. It is therefore plausible to assume that they have been reanalysed as the default tense for describing past events, and this is a common view in the literature.

On the other hand, *l*-participles themselves have been argued to be non-finite verb forms, and that finiteness comes from the ‘be’-auxiliary, which is overt in, e.g., Czech (in most cases), and always covert in, e.g., Russian (e.g. Pitsch 2015; Todorović 2016). Arguments for the non-finite status of *l*-participles come from the fact that they lack person/number agreement, which is typical for finite verb forms, but express gender/number agreement instead (since they are “participles”). This kind of analysis, as well as other empirical observations that I will get to shortly, have been used in accounts that assume that in general there is no TP in Slavic languages like Czech and Russian (e.g. Todorović 2016).

An alternative we could pursue is that there might be cross-Slavic variation in this respect, even in languages that only have this one “past tense”. In particular, it could be that the view presented above only holds for Czech (and maybe also Serbian and other languages), but not for Russian. In Russian, in turn, we could be dealing with the reanalysis of the Russian *l*-participles as finite past tense forms, with *-l* being inserted in T. Let us take a closer look at these two competing ideas.

4.1.1 Todorović (2016)

Todorović (2016) argues that while Bulgarian and Macedonian have a TP, all other Slavic languages lack TP and tense semantics is derived from inner/outer aspect and modals. For example, what is commonly labeled a “future tense” is a combination of a modal auxiliary with the infinitive or *l*-participle. Her main arguments come from the fact that there are finiteness mismatches in VP-ellipsis (but no aspectual mismatches) in the latter languages but not in Bulgarian and Macedonian.

Furthermore, she observes that what is traditionally labelled “present” or “past” tense forms in the allegedly tenseless Slavic languages also appears in contexts without a present or past tense semantics, respectively. For example, *l*-participles in Polish and Slovenian are also used in the periphrastic “future”, and they quite generally appear in subjunctives/conjunctives, without (necessarily) being associated with a past tense semantics. Serbian “present tense” forms, in turn, surface in subordinate clauses and conditionals, without necessarily expressing present tense semantics. Todorović also takes a closer look at aorist/imperfect forms in Bulgarian, as opposed to the Serbian dialects that still have such forms. Based on the observation that these forms can freely combine with either IPFV or PFV in Bulgarian, she proposes that they are tense forms in this language. In contrast, Serbian aorist and imperfect forms are restricted to the PFV and IPFV, respectively, which leads to their analysis as aspects, rather than tenses.

Finally, Todorović (2016) claims that only Bulgarian and Macedonian have dedicated tense morphology (see also Migdalski 2013; Jung & Migdalski 2015; Pitsch 2015). For example, the present tense forms of Bulgarian ‘read’ are given in table 4, with the relevant forms analysed as a combination of stem + tense suffix + agreement suffix.⁹

Table 4: Bulgarian tense forms (Todorović 2016: 249)

Stem /tʃɛtʲ/ ‘read’	Underlying form	Surface form
2sg	/tʃɛˈtʲ+ɛ+ɨ/	/tʃɛˈtʃɨ/
3sg	/tʃɛˈtʲ+ɛ/	/tʃɛˈtʃɛ/
1pl	/tʃɛˈtʲ+ɛ+m/	/tʃɛˈtʃɛm/
2pl	/tʃɛˈtʲ+ɛ+tʃɛ/	/tʃɛˈtʃɛtʃɛ/

In contrast, Serbian present tense forms are analysed as being made up of the stem (+ thematic vowel *a/i/e*) + agreement suffix, thereby lacking dedicated tense morphology. This is illustrated for Serbian present tense forms of ‘sleep’ in (16).

- (16) spava-m, spava-š, spava-∅, spava-mo, spava-te, spava-ju (Serbian)

Note that Czech present tense forms morphologically resemble the Serbian forms described here. On the other hand, Russian verb forms look more like Bulgarian

⁹First person singular and third person plural forms as well as other conjugation classes are not mentioned in this context, presumably because they are less transparent in their morphology.

in the same conjugation class that is described in the table above, but more like Serbian (and Czech, and actually also like other Bulgarian conjugation classes) in other conjugation classes, as illustrated in (17).

- (17) a. ‘read’: čit-a-e(-)š’, čit-a-e(-)t, čit-a-e(-)m, čit-a-e(-)te (Russian)
 b. ‘say’: govor-i-i-š’, govor-i-t, govor-i-m, govor-i-te

Nevertheless, [Todorović \(2016\)](#) analyses the relevant morphology in examples like those in (17a) (in particular the *-e*) not as separate tense morphemes (which is the analysis of the Bulgarian counterparts and would therefore require the hyphen), but as being reanalysed as part of the agreement markers (in which case the hyphen should not be used).

4.1.2 What if: Russian vs. Czech TP

What if the analysis of verbal morphology proposed by [Todorović \(2016\)](#) for, e.g., Serbian is correct for Czech, but not for Russian? The fact that the present tense forms in Russian look more like Bulgarian could point in this direction (recall (17)). Furthermore, [Todorović’s](#) arguments from “past/present tense” forms appearing in non-past/non-present contexts in the allegedly tenseless Slavic languages, are a lot weaker for Russian: there are no uses of *l*-participles in future tense contexts (as in Polish or Slovenian) or of “present tense” forms in subordinate and subjunctive clauses (as in Serbian). The only argument that remains is the use of *l*-participles in combination with a conjunctive marker, but in all other cases the *l*-participle is restricted to the past tense contexts. However, we also find “tense forms” with different tense semantics in languages that are not doubted to have tense morphology/TP. For example, English *if*-clauses often contain past tense forms without a past tense semantics, and many languages with Tense use present tense forms in the historical present to describe events that happened in the past. Finally, if [Todorović’s](#) proposal were correct, one would expect much more freedom in temporal interpretation, and to find a situation that might be similar to what we have in, e.g., Chinese, for which the arguments that it lacks tense (morphology) are far more convincing (see, e.g. [Lin 2006](#): and literature cited therein). In particular, we should find “past/present” tense forms in all kinds of temporal constellations, but they are rather restricted and confined to the past vs. non-past, respectively, with the few exceptions mentioned above, which are, however, similar to what we find in, e.g., English.

4.2 Aspect vs. Tense semantics

All existing formal-semantic accounts of cross-Slavic aspectual variation work with (some notion of) temporal definiteness (see also Dickey 2000; Mueller-Reichau 2018; to appear). In her account of differences in the use of factual IPFVs in Czech, Polish, and Russian, for example, Klimek-Jankowska (2022) follows Ramchand (2008) in assuming that PFVs generally introduce a definite or specific reference time point.¹⁰ To account for the variation, she proposes that a speaker can choose whether the reference point is definite/specific with respect to either E (the temporal trace of the event) (as in Ramchand's 2008 account) or the speech time S. In Russian and Eastern Polish, she argues, there is a preference for R to be definite/specific with respect to S, whereas in Czech and Western Polish there is a preference for R to be definite/specific with respect to E. This, in turn, is taken as an explanation for why there are more factual IPFVs in Russian and Eastern Polish (e.g. with existential IPFVs it is usually not known or specified when the event happened exactly, in relation to S), as opposed to Czech and Western Polish, where we find more PFVs (because the actual event is often "completed"). This account, then, seems to suggest that Russian (and Eastern Polish) Aspect is more similar to what is commonly assumed to be a tense (relating R and S), whereas Czech (and Western Polish) Aspect functions the way we would expect grammatical Aspect to, cross-linguistically (relating R and E).

Another departure from the possibly simplistic assumptions we started out with is found in the Tense-Aspect-architecture proposed in Reinhart (1986; 2000) for English, and further applied to Russian by Borik (2006; 2018). Reinhart argues that the E-R relation is by default the inclusion relation $E \subseteq R$; the Progressive is proposed to reverse this relation. The S-E relation, in turn, is taken to determine the sentence's truth conditions and temporal interpretation. Finally, the S-R relation is argued to provide the speaker's perspective and to be related to tense morphology (e.g. past: $R < S$ / present: $S \cap R \neq \emptyset$). Perspective here concerns the question whether the speaker at S is "inside" the relevance domain R (e.g. in the present perfect) or not.

Borik (2006) applies this system to Russian, with some adjustments. She proposes that $E \subseteq R$ is fixed as well, and there is obviously no Progressive to reverse this relation. The S-E relation, in turn, is argued to be the one that is responsible for both temporal interpretation and tense morphology in Russian. Finally, the S-R relation is taken to be determined by Aspect. Borik follows the standard view that PFV is the marked Aspect in Russian, and its definition is a conjunction of

¹⁰Klimek-Jankowska (2022) uses the notions "definite" and "specific" seemingly interchangeably and does not make precise which exact semantic notion she has in mind.

an external perspective on the event from the speaker's point of view (S and R do not overlap) and E being included in R, since this relation is fixed (18a). IPFV, in turn, is argued to negate this conjunction, leading to the disjunction in (18b), which represents either an existential IPFV ("perfect") reading (S and R overlap) or a progressive/ongoing reading (E is not included in R).

- (18) a. PFV: $S \cap R = \emptyset \ \& \ E \subseteq R$
 b. IPFV: $\neg(S \cap R = \emptyset \ \& \ E \subseteq R)$
 in other words: $S \cap R \neq \emptyset \ \vee \ E \not\subseteq R$

Again, by taking Russian (PFV) Aspect to primarily relate S and R, contra standard assumptions about Aspect (and with the E-R relation being fixed), Russian Aspect is closer to what we standardly assume a tense to be.

Borik (2018) relativises this system and hypothesises that the idea that the S-E relation is responsible for both temporal interpretation and tense morphology, thereby leaving the relation to R unspecified, might only hold for the Russian past tense, whereas the present (non-past) tense might be a standard tense (expressing a relation between R and S).¹¹ This hypothesis is motivated by her observation that while both IPFV and PFV past tense forms can correspond to the English (present or past) perfect, only PFV non-past forms correspond to the English (future) perfect. She suggests that this split in past vs. non-past tense semantics could be connected to the diachrony of *l*-participles. In particular, she speculates that due to the drop of auxiliaries in combination with *l*-participles in Russian (see §4.3), the link to S in TP (where the auxiliary sits), i.e. to the present moment, is lost as well, so that the *l*-participle gets shifted to report on an eventuality that occurred in the past. Let us then look at the diachrony of these participles.

4.3 Diachrony of *l*-participles

Migdalski (2005) describes in detail the different diachronic developments of the *l*-participle and its function(s) in Slavic languages. For example, he observes that there was an increased use of the present perfect in Old Church Russian that happened earlier than in Old Church Slavonic. The auxiliary started to be left out in the 11th century, and auxiliary drop becomes the norm in the 12th/13th century (at the same times as Russian becomes non-pro-drop), which is rather early, from a cross-Slavic perspective. The decline of the imperfect started in the 13th century, and the decline of the aorist took place in the 15th/16th century.

¹¹If the S-R relation is the tense relation in non-past contexts, it is less clear whether (I)PFV maintains the semantics proposed in (18), something that Borik (2018) does not discuss.

In Polish, on the other hand, Migdalski (2005) observes that aorist and imperfect were lost in the 14th century. In addition, Polish started to use reduced forms of the auxiliary in connection with the *l*-participle, which extend to the whole paradigm. He argues that this was followed by a reanalysis of the auxiliary following the *l*-participle as an affix, and this process continues in Modern Polish and is not completed. He furthermore describes a second strategy in Modern Polish with the auxiliary as a second position clitic when it encliticises onto an element that has been moved to the clause-initial position (due to focus or topicalisation). He argues that in this case the *l*-participle is the head of the VP, which undergoes head movement to T to left-adjoin to the perfect auxiliary in T. He assumes other auxiliaries to be lower, in Aux, above VP.

Finally, Migdalski (2005) states that Czech lost the aorist/imperfect forms also in the 14th century but that the auxiliary in Czech is still more independent than in Polish. While it has been reduced to a clitic, it is still separate from the *l*-participle and never appears as an affix. Fronted *l*-participles are argued to involve predicate inversion (phrasal movement), as in South Slavic, which is different from Polish as well.

4.4 Taking stock: Some speculations

Let us take stock and connect some of the dots. We saw that Czech Aspect use functions the same in both finite and non-finite contexts (aspectual pairs, aspectual readings: e.g. ongoing vs. “completed”), whereas in Russian the full functional potential of Aspect is only found in the finite domain, and possibly even differs in past vs. present tense contexts. Judging from the different morphological make-up of “past tense” forms, we could assume that in Czech, *l*-participles are truly non-finite and stay low (say, in VP/AspP) (unless there is predicate inversion), and the auxiliary sits in T and is responsible for the temporal interpretation. This is essentially the kind of syntactic structure we find in proposals for Czech by, e.g., Veselovská (2008), and this also fits well with Biskup’s (2019) analysis of Czech *l*-participles as spelling out a participial head, but certainly not being located in T. This leads to Tense and Aspect being morphologically dissociated and therefore fulfilling their regular duties in that they independently express standard Tense and Aspect relations, as outlined in the beginning of this section. Therefore there is also no difference between active and passive forms, since for passives we also have an auxiliary in T and the PPP in VP or AspP (or *-n/t* spelling out a different participial head, as proposed in Biskup 2019).

In Russian, on the other hand, *l*-participles have been reanalysed as synthetic verb forms, e.g. with *-l* being the head of T, and the verb arguably moving to

T.¹² This leads to Russian Tense and Aspect being more intertwined and together contributing to the overall temporal-aspectual interpretation. Participial passives work differently from actives, then, because we have an auxiliary in T, and the PPP stays low. As for the intermediate position of Polish (recall discussion of Klimek-Jankowska 2022), we could speculate even more and assume that participles can stay low but can also move up to left-adjoin to the auxiliary in T.

The question remains as to what happens with present tense forms: these are synthetic forms in both languages, and if Borik's (2018) speculation is right, Russian past tense does not come with a regular past tense semantics, whereas Russian present tense is a run-of-the-mill tense. Does that mean that Aspect in past tense contexts is more temporal, but less so in present (or non-past) tense contexts? At this point, I do not have an answer to this question. Nonetheless, with respect to present/non-past "tense" forms, we could speculate and follow Todořović (2016) in assuming that "present tense" forms lack tense/TP in both Czech and Russian.¹³ The only tense form that Russian has, then, is the past tense form.

Finally, we could entertain the possibility that cross-Slavic differences in the use of external prefixes or the general question of whether particular prefixes are even external to begin with, could also be connected to the general differences discussed in this paper. In particular, we could assume that (at least some) Russian external prefixes (e.g. delimitative *po-*, ingressive *za-*) are Asp heads closer connected to the temporal domain, given that they are commonly used precisely in those contexts in which states or activities are temporally bound to create a SOE interpretation (recall discussion in §3.1 and references cited therein). In Czech, on the other hand, external prefixes (or at least those that are not like regular internal prefixes in being related to resultativity) usually add a meaning that is closer to that of adverbial modification, but not necessarily temporal in nature (see also discussion in Gehrke 2008), so that one could assume that Czech "external" prefixes are actually lower than Russian ones?¹⁴ This would also make

¹²Such an analysis seems to be assumed in Biskup (2019), since all his trees representing Russian past tense examples (e.g. in chapter 2) have *-I* (with its relevant features) merged in T, even though he does not explicitly argue for this.

A potential problem for locating Russian *l*-participles in TP are arguments from Gribanova (2013) in support of an account that has verbs move as high as Asp, but not as high as T (see also arguments in Bailyn 1995). In this context, Biskup (2019: 11, footnote 4) suggest that there might be an additional lowering of T at PF.

¹³However, there are also cross-Slavic Aspect differences in non-past contexts, e.g. in historical present, commentaries, instructions (see, e.g., Dickey 2000: and several references cited in §2).

¹⁴Cross-Slavic differences in the use of particular prefixes are also discussed in Dickey (2015) and references cited therein (recall also table 2), albeit not under the label "internal/external" prefixes (or similar), but rather under the label *préfixe vide* or with respect to particular prefixes, such as delimitative and distributive *po-*.

sense of arguments provided in, e.g., Žaucer (2009); Biskup (2019); Milosavljević (2023) for languages like Slovenian, Czech, and Serbian, respectively, that (at least some) “external” prefixes (i.e. counterparts to prefixes that, for example for Russian, have been argued to be external, such as *po-* or *za-*) behave more like internal or at least lower ones. Alternatively, some could be yet external in a different way. For example, the Czech prefix *u-* can contribute a modal interpretation (‘to be able to’) (see, e.g., Filip 1999) and could therefore be part of the modal system. One instance of Czech *po-*, in turn, namely the one that appears on present tensed determinate motion verbs, could be even higher in the syntactic tree, as it got reanalysed as a Tense head to mark future tense, as argued convincingly by Biskup (2019). A systematic and extensive investigation into difference in the use of external prefixes still needs to be done.

5 Conclusion

This paper started out from the well-known fact that Slavic languages vary in the way they use Aspect in various contexts. I added a new overarching difference between particularly Czech and Russian in the way their Aspect systems work in finite vs. non-finite domains by looking at sequence-of-events readings, nominalisations, and participial passives. The picture that emerged from these domains is that in Czech, Aspect fulfils its full functional potential in both the finite and non-finite domain, whereas Russian Aspect is not fully functional in the non-finite domain. Thus, there is a closer connection between Aspect and finiteness, or between Aspect and Tense in Russian than in Czech.

I provided some speculations about the source of this difference and also tried to link it to the different diachronic developments of Czech and Russian “past tense” forms. I speculated that in Czech, the auxiliary is inserted in T (Tense), whereas the *l*-participle stays low (e.g. in Asp), so that there is a clear separation of Tense and Aspect. In Russian, on the other hand, there is only one form and I assumed that it sits in T directly, so that Tense and Aspect cannot be separated morphologically, which could lead to the semantics being different as well. The precise implementation of this idea across different linguistic domains (morphology, syntax, semantics, pragmatics) needs to be worked out, and the contrast between past- and non-past-tenses remains an open question.

Abbreviations

ACC	accusative	NOM	nominative
ADJ	adjective	PFV	perfective
AP	adverbial participle	PL	plural
DAT	dative	PPP	past passive participle
FREQ	frequentative	REFL	reflexive
INF	infinitive	REFLPOSS	reflexive possessive
INSTR	instrumental	SEM	semelfactive
IPFV	imperfective	SG	singular
ITER	iterative	SI	secondary imperfective
N	neuter	SOE	sequence of events
NEG	negation	TH	theme (vowel)

Acknowledgments

(To be filled in)

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