# Reverse temporal interpretations in Slavic: towards an analysis

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#### Abstract

The temporal/aspectual systems of most Slavic languages have the peculiar feature of allowing, for restricted sets of verbs and in contextually salient environments, a 'reverse' temporal interpretation, i.e. a past-inflected verb (nota bene: in matrix clauses, not in subordinate ones because of a Sequenceof-Tense rule) can be interpreted as having future reference, and vice-versa. Typical examples of future-oriented readings of past tense forms include Russian expressions like poexali (lit. '[we] went/left' but interpreted as 'let's go' or 'we are going') and the so-called 'future aorist' in Serbian/Croatian/Bosnian and in Macedonian. Conversely, in Russian and Polish – and arguably also in other Slavic languages – a future-marked form (the perfective present) can get a past reading when the setting is clearly situated before the speech time. Although the conditions that are required to allow such 'reverse' interpretations of Tense are different across the Slavic languages and are generally far from clear, the trigger for the reversal unquestionably lies in pragmatics and in the discourse environment. On these bases this paper will offer a very preliminary analysis of tense morphology in Slavic and it will be argued that, in neo-Reichenbachian terms, it only partially contributes to the relation between the E(vent) time and the R(eference) time, whereas the relation between R and the S(peech) time is essentially introduced in morphosyntax as a free variable that gets bound later, in dependance to discourse and pragmatics.

### **Keywords**

Syntax; Semantics; Pragmatics; Tense; Slavic languages; Relevance Theory; Syntax-Semantics interface.

#### 1. Introduction<sup>1</sup>

This paper provides a preliminary assessment of a peculiar feature displayed by the temporal-

<sup>&</sup>lt;sup>1</sup> Some of the ideas developed in this paper were originally presented in a talk given, jointly with Andrea Tarantola, at the GLOW 33 – Slavic Syntax and Semantics Session, held in Wrocław on April 13<sup>th</sup>, 2010. As Andrea's contribution to the theoretical part of the talk (reflected in Section 4 of this paper) was much larger than mine, I wish to gratefully acknowledge his influence on my research and to thank him for virtually coauthoring this article. I also wish to thank Natalia Osis and Valeriia Zhukova for discussing with me some Russian examples and for providing some fresh ones as native speakers. Thanks also to the audience of the 5<sup>th</sup> Incontro di Linguistica Slava (Università Sapienza and Università Roma Tre, Rome, September 25<sup>th</sup>-27<sup>th</sup>, 2014), especially to Lucyna Gebert for pointing out the possibility of future-for-past usages in Polish. Finally, a big 'thank you' to Gord Muschett for generously proofreading the manuscript and improving its English.

aspectual systems of many Slavic languages, which can be subsumed under the label of 'reverse temporal interpretation': given appropriate pragmatic contextual conditions and a salient discourse environment, the event expressed by a past-inflected verb is interpreted as located in a time after the utterance time, and, conversely, the temporal interpretation of a future-inflected verb is unambiguously set at a time, which is relative to an interval established at the discourse level, prior to the utterance time. To illustrate the issue, (1) exemplifies the 'past for future' reversal in Russian, (2) is an example of 'future for past' in Macedonian.

- (1) Nu, my pošliok.INTJ we went.PFV.PST.PL'Now we are going.'/'Now we have to go.' (Uttered when about to say goodbye to the person one is talking to)
- (2) Srceto ì bieše ludo ì se čineše
  heart.ART and beat.IPRF crazy and REFL looked\_like.IPRF.

  ke se rasprsne vo gradite.

  FUT REFL explode.PFV.PRS.3SG in chest.ART

  'My heart was beating like crazy, it looked like it was exploding in the chest.' (Nikolovska 2016)

## 2. Reversing the temporal interpretation

The vast literature on Tense and Aspect, be it grounded in the formal linguistics tradition or in other approaches, has for a long time familiarized us with the idea that the relationship between Tense and the temporal reference is, at best, indirect and mediated by the Aktionsart of the verb and the syntactic environment in which the tense inflection occurs. Thus, a well-established (at least since Ladusaw 1977; Comrie 1985) parameterization divides languages into two groups: those, like English, having a Sequence-of-Tense (SOT) rule in embedded clauses, which 'copies' the past of the matrix clause onto the complement clause present, and those, like Russian or Japanese, where such a rule does not hold.

The interlinear glosses in the examples follow the *Leipzig Glossing Rules* – LGR (available at <a href="https://www.eva.mpg.de/lingua/resources/glossing-rules.php">https://www.eva.mpg.de/lingua/resources/glossing-rules.php</a>, last seen: May 10<sup>th</sup>, 2023), including the standard abbreviations listed therein. Other abbreviations used in this article and not included in the LGR appendix are the following: AOR – aorist; IPRF – imperfect; INTJ – interjection particle; INCH – inchoative; PRF – perfect. Throughout the article I extensively use the abbreviations, customary in generative linguistics, LF (Logical Form) and PF (Phonological Form), the syntactic levels of representation that interface, respectively, with the conceptual-intentional system and with the articulatory-perceptual system.

However, in the cases dealt with in this article, it must be emphasized that what is referred to as 'reverse temporal interpretation' is always observed in matrix clauses and cannot be ascribed to whatsoever interaction with a Tense feature located higher in clausal spine, i.e., in other words, the reversal of the temporal interpretation is in no way a consequence of a SOT rule. Also, what is striking in the cases at stake is the fact that the temporal interpretation is not simply 'shifted' forward or backward with respect to a certain time – be it the event time or a reference time – but is truly reversed with respect to the speech time, making a past time a future time and vice-versa.

One point, however, has to be made clear before presenting the data and discussing the various details: the reversed temporal interpretations that I will discuss in this paper have limited occurrences and can be thus considered a minor phenomenon<sup>2</sup>, and – most importantly – their occurrence across different languages and various morphosyntactic environments cannot be regarded as the result of one and only syntactic feature that would cause such a 'reversal' of the time reference. Rather, the past-future swap (in either direction) has all the characteristics of what appears to be the result of a conspiracy of different factors (hence, an epiphenomenon), belonging to two distinct domains: morphosyntax and pragmatics/discourse.

On the other hand, it has to be stressed that such instances of 'deviant' use of tenses in Slavic have been a rather neglected topic in the literature (see, e.g., Góralczyk & Łozińska 2021: 631-33), since they have only rarely been taken into consideration in formal approaches (a notable exception being Grønn 2011 for constructions with the perfective future), while the treatments in Russian aspectology (Bondarko 1971; Švedova 1970: 607; Maslov 2004: 107 ff.) and in the typological-functional approaches have been more descriptive than explanatory.

Be that as it may, at first approximation, the facts that will be taken under investigation in this article, which I will label as reversed temporal interpretations, can be characterized based on the following distinctive features:

Morphological inflections that normally encode a past reference (with respect to the speech time, in matrix clauses), are interpreted as referring to a future time, after the speech time. Conversely, some future tenses may convey an interpretation of the eventuality being described as having occurred prior to the speech time.

In Russian, one tense may occasionally be used with the meaning of another. The present tense may be used to mean the future or the past; the simple future tense may be used to mean the present or the past; the past tense of perfective verbs is (rarely) used to mean the future (Pulkina & Zakhava-Nekrasova 2000: 338).

<sup>&</sup>lt;sup>2</sup> That such facts are in some sense minor but cannot be regarded as marginal is witnessed by their mention even in grammar textbooks, especially for second-language acquisition, as in Pulkina & Zakhava-Nekrasova's text for Russian:

- The temporal interpretation of the eventuality which is being described clearly displays a mismatch with respect to the morphological Tense. In some sense, there seems to occur a 'semantic shift' at LF, all other things being equal at PF.
- The eventuality undergoing a shift of its temporal interpretation must be a dynamic one: this excludes states but not, at least in some cases, perfective forms of stative verbs (inchoatives and delimitative forms that point to a limited duration of the state).
- The tensed verb undergoing the reversal of its temporal interpretation is a matrix clause verb.
- The reversal of the temporal interpretation always appears to be licensed by more or less specific discourse or pragmatic environments.

Finally, a note is in order concerning the presence of this phenomenon outside Slavic: while a survey of the studies dealing with similar phenomena in other languages or language families would go beyond the scope of this paper, it is crucial to recall that past/future semantics inversions have indeed been observed cross-linguistically (e.g. in the Georgian aorist, see Giorgi & Haroutyunian 2011; as well as in the Italian Epistemic-doxastic Imperfect and Imperfect of planning, see Ippolito 2004) and are by no means anomalous or deviant.

#### 3. Data

In Slavic languages, instances of the 'past for future' swap can be seen in the following languages and morphological environments:

- Russian: past tense in -l- on perfective bases, with perfective motion verbs and other telic perfectives, including inchoatives;
- Macedonian (and possibly Bulgarian): aorist inflections on perfective bases;
- Serbo-Croatian: aorist inflections on perfective bases with (indefinite) future interpretation; 'verbal adjective' in *-l* with exhortative interpretation.

Conversely, the 'future for past' reversal seems to be less widespread across Slavic, since it clearly occurs in East and West Slavic, whereas in South Slavic only Macedonian seems to display some sort of future tense that may refer to eventualities in the past:

- Russian (probably also Ukrainian and Belorussian), Polish: the event denoted by a perfective verb marked by present tense ('simple future') is interpreted as having occurred habitually/repeatedly in the past, if the discourse setting in which it occurs makes reference to a time prior the utterance time.
- Macedonian: the future marker ke can be attached to present-inflected perfective verbs, to express habituality/repeated events; however, the status of this 'perfective future' as an

independent tense is dubious (see discussion below in §3.2.2).

In the following subsections, I provide examples of the above-mentioned occurrences of temporal reversals and briefly discuss how the time reference emerges depending on certain pragmatic and discourse conditions.

#### 3.1. 'Past for future'

# 3.1.1. Russian: -l- morphology on perfective verbs

In Russian the past tense morpheme -*l*- (basically, a participial inflection, since it has subject agreement in gender and number, not in person), when attached to perfective stems (most often, motion verbs), can convey the following readings that exclude the default interpretation of the event as located in the past:

- A) an intention of the speaker that s/he plans to realize in the immediate future: ex. (3)-(5);
- B) an exhortation to the hearer or an instruction to her/him to perform a certain action (directive or 'quasi-imperative' use)<sup>3</sup>: ex. (6)-(8);
- C) an intention of the speaker that entails also a directive to the hearer to participate in the same action (basically, the same as (A) above, but with an inclusive first person plural semantics): ex. (9)-(12);
- D) the result or consequence of an event that is generally foreseen or hypothetical: ex. (13)-(14); in certain stylistically marked cases, even imperfective verbs may be used.
- (3) Ja poexala s veščami a ty pribereš' kvartiru.

  I went.PFV.PST-SG.F with things and you clean\_up.PFV.PRS/FUT.2SG flat

  'I'll take the things down in a lorry and you clean up the flat.'

  (A. Gajdar, *Timur i ego komanda*. Example taken from Pulkina & Zakhava-Nekrasova (2000: 341))
- (4) Nu, ja pošël.

  INTJ I go.PFV.PST.SG.M

  'Well, I'm going.'

<sup>&</sup>lt;sup>3</sup> According to Mel'ničuk (1966: 77) this kind of directive use is available also in Czech, in expressions like *šel sem* (lit. 'go.IPFV/PFV.PST.M here.ADV') when directed to a male child to convey an instruction ('come here!'). I could not find any other example involving other verbs or mentions of figurative usage of tense in Czech descriptive grammars, so I assume that such uses are probably very restricted or even idiomatic with the verb *jit* ('to go') only.

(5) Ubila, ubila ja tebja!
killed.PFV.PST.SG.F... I you.ACC
'I'll kill you!'
(Uttered by a little girl trying to kill a mosquito)

All examples (3)-(5) carry an implicature, namely that the eventuality described by the verb in the past tense has not yet happened. In (3) the implicature obtains through discourse means, since the coordinate sentence verb (*pribereš'*) is explicitly future-tensed, which bans a reading of *poexala* as having occurred in the past: in Gricean terms this is a generalized conversational implicature motivated by the Maxim of Manner, where chronological order between the first and the second conjunct of (3) is expected. There is, however, a further condition that is required for the default past reading of *poexala* to be excluded, which is in some sense extralinguistic and pertains to the situational context only: (3) is uttered in the course of a conversation in which no reference has been made to any situation in the past whereby the speaker's leaving could be possibly situated and, most importantly, the speaker is 'here and now', therefore his/her leaving cannot have happened yet. This contextual condition (the physical presence of speaker and the absence of a situation set in the past in the preceding conversational exchange), in (3) and (4) is sufficient to trigger the same implicature, i.e. that the event has not yet happened.

- (6) Pošël ty k čertu.

  Went.PFV.PST.SG.M you to devil

  'Go to hell!'
- (7) A nu-ka bystro vsë ubral!

  and INTJ quickly everything clean\_up.PFV.PST.SG.M

  'Clean up everything quickly!' (Plungjan 2005: 144)
- (8) No sejčas podnjali vse ruki... vse, vse požalujsta, i poexali! Eščë, ....

  But now raised.PFV.PST.PLeverybody hands everybody..please and went.PFV.PST.PL again...

  'Now, everybody raise your hands up! Let's go!' (Pop singer Sofija Rotaru addressing the audience during a concert)<sup>4</sup>

Examples (6)-(8) reproduce the same syntactic pattern and pragmatic conditions of examples (3)-(5), but the 2<sup>nd</sup> person subject is either postponed to the verb, as in (6), or dropped, as in (7)-(8). The readings of such utterances display no ambiguity and any Russian speaker will clearly interpret them

<sup>&</sup>lt;sup>4</sup> Available at <a href="https://www.youtube.com/watch?v=mcyqN37YS3E&t=3122s">https://www.youtube.com/watch?v=mcyqN37YS3E&t=3122s</a> (last seen: April 13<sup>th</sup>, 2023).

as imperatives. Without getting into detail, these clauses, besides having an imperative meaning, may also have an imperative syntax as is shown by the fact that the verb raises higher than the subject in (6). At any rate, the temporal location of the events described by (6)-(8) is unambiguously fixed at a time later than the utterance time, and the implicature that is triggered is that the event being described refers to an action to be performed in the immediate future by the hearer.

(9) Poexali!
go.PFV.PST.PL
'Let's go!'

639)

- (10) *Nu, zapeli*.

  INTJ sang.INCH.PFV.PST.SG.M

  'Come on, let's sing!'
- (11) Nu dvinulis', čto li? K Slavkam zajdëm?

  INTJ move.PFV.PST.PL.REFL what Q to Slavkasgo.PFV.PRS/FUT.1PL

  'Well, let's move on, right? Shall we go to the Slavkas?' (Varvara Kljueva, Unikum, ch. 15)
- (12) *Staëm* na načale kovrika, stopy vmeste. Soedinili ladoni pered soboj stand.IPFV.PRS.1PL on edge mat.GEN feet together join.PFV.PST.PL hands front oneself v namaste. Kosnulis' lbom končikov pal'cev, nastroilis' in namaste touch.PFV.PST.PL forehead.INS fingertips tune in.PFV.PST.PL to practice ruki vverx, sdelali *Vytjanuli* vdox, naklon vniz, kosnulis' stretch.PFV.PST.PL hands up make.PFV.PST.PL breath bend down touch.PFV.PST.PL pal'cami ruk pola ... fingers.INS hands.GEN floor.GEN 'We stand on the edge of the mat, feet together. Let's join hands in front in *namaste*. Let's touch the fingertips with the forehead, let's get tuned into the practice. Let's stretch our hands up,

The exhortative use of the past tense morpheme -*l*- with the inclusive first person plural semantics is reflected in examples (9)-(12), which basically do not differ from the directive use of examples (6)-(8). In fact, at least (9) and (10) could equally receive an interpretation which excludes the speaker, given slightly different expectations of the audience (for instance, if (10) is uttered by a choir director just before rehearsing a song). In examples (9) and (12) we can note again the occurrence of verbs

breath in, bend down, let's touch the floor with our fingers ...' (Góralczyk & Łozińska 2021:

with different morphological tenses (the future *zajdëm* and the present *staëm*), which are consistent with the narrative progression that is obtained if the *-l-* morphological past tenses are assigned a future reference.

(13) I vot predstav', zavtra ty uznal, čto tvoj drug

And here imagine.IMP.2SG tomorrow you learned.PFV.PST.SG.M that your friend

tebja obmanul

you.ACC cheated.PFV.PST.SG.M

'And just imagine, tomorrow you find out that your friend cheated you.' (Švedova 1970: 358)

(14) Gliadiš – i ožil
look.IPFV.PRS.2SG and come\_alive.PFV.PST.SG.M

'You look, and feel like coming alive' (Švedova 1970: 358)

The reading of the past tense as future described in (C) above is illustrated by examples (13)-(14). This is perhaps the most intricate case, for – even intuitively – several temporal plans intersect and reference to the time indicated by *uznal* in (13) and *ožil* in (14) is mediated by a reference time from which there is a backward shift to the time when the state described by the verb begins. Percov comments on (13) as follows:

Such marginal cases also retain the idea of precedence: some hypothetical situation is considered, which is preceded by a certain fact (in the quoted sentence, a hypothetical situation is a certain state of the addressee, which is immediately preceded by learning about the deceit committed by the other) (Percov 2001: 209, translation mine).

The past meaning of *uznal* in (13) and *ožil* in (14) is, in some sense, a perfect meaning rather than a simple preterite, since the event is the beginning of a state (learning about being cheated, coming alive) and its result is the state itself, which is an enduring state, with the only difference that this enduring state is obtained not in a present time but in a future one.

As a final observation, we note that all verbs in the examples quoted, besides being perfective ones, are telic in nature, including the inchoatives in (13)-(14). Perfective verbs with delimitative meaning, i.e verbs denoting a state or an atelic activity which occurs for some short indefinite time (Dickey & Hutcheson 2003) like *pogovorit* '('to talk for some time'), seem not to occur in past-for-future usage though in substandard language examples like (15) can be actually found<sup>5</sup>:

<sup>&</sup>lt;sup>5</sup> Russian speakers I consulted judged this example as not acceptable.

(15) Davajte poboltali na takuju bredovuju temu?
give.IPFV.IMP.2PL chat.PFV.PST.PL on such crazy topic
'Let's talk about such a crazy topic, shall we?' (Post in an internet forum)<sup>6</sup>

# 3.1.2. Macedonian and Bulgarian: the aorist

In Macedonian the aorist tense (also called 'past definite complete tense', *minato opredeleno svršeno vreme*), is formed generally from perfective stems with the addition of a set of person-number endings, partially overlapping (in the first person singular and in the plural) with the endings of the imperfect ('past definite incomplete tense', *minato opredeleno nesvršeno vreme*). The use of the aorist to convey future reference is analogous to use of Russian -*l*- past to express the speaker's plan to perform an action in the immediate future (as in (A) above, §3.1.1):

- (16) Ajde, jas otidov

  all\_right.INTJ I went\_away.PFV.AOR.1SG

  'All right, I'm leaving.'

  (Usikova 2003: 200)
- (17) Parčinja te storiv!

  pieces you.ACC make.PFV.AOR.1SG

  'I'll cut you into pieces!' (Koneski 1967: 425)
- (18) Trgnav
  left.PFV.AOR.1SG

  'I'm going (now).' (Said when on the point of departure) (Lunt 1952: 91)

However, differently from Russian, the past-future swap is obtained also in the 3<sup>rd</sup> person, if the narrative context provides a suitable temporal environment: in (19) the imperative *isturi* sets the reference time at the time of utterance; the aorist *vtasa* is embedded under the adjunct clause introduced by *oti* and, as far as the adjunct clause expresses the reason for the instruction given in the main clause, the reading 'it won't grow old' (i.e., 'it will not last long anyway') is favored over 'it didn't grow old' as a motivation for spilling the oil.

<sup>&</sup>lt;sup>6</sup> Available at <a href="https://www.woman.ru/rest/freetime/thread/4821241/">https://www.woman.ru/rest/freetime/thread/4821241/</a> (last accessed: April 21st, 2023).

(19) Isturi go, bre momče, masloto, mu rekol konjo,
spill.IMP.2SG it INTJ boy oil.ART him.DAT said.PRF.M.SG. horse

oti ne vtasa stario
since not grew.PFV.AOR.3SG old

'Spill the oil, boy – said the horse – since it won't grow old.'

(Koneski 1967: 425)

On the other hand, the agrist in the first or second person plural to convey an exhortation or instruction (either excluding or including the speaker) as in (A)-(B) above for Russian, see examples (6)-(12), seems not to be attested in Macedonian.

Bulgarian, despite being closely related to Macedonian, displays some differences in the Tense-Aspect system but basically the core meaning of the Bulgarian perfective aorist coincides with the meaning of the Macedonian one. Bulgarian descriptive grammars do not mention, as far as I can tell, the usage of the aorist to convey a future action, nonetheless in the National Bulgarian Corpus<sup>7</sup> instances can be found of past-for-future usage of the aorist, much in the same way as it occurs in Macedonian. Example (20) is particularly prominent since it is an excerpt from the Bulgarian translation of Harper Lee's *To Kill a Mockingbird*: in the conversational exchange between the two main characters a future (hypothetical) situation is introduced in the first turn (*šte te napljaskam*, 'I'll spank you'), but this is not the source of the temporal shift from past to future, as the only implicature that excludes a past reading of the aorist *ubix* is construed by way of the situational context only, as in Russian examples (4)-(5) and in Macedonian examples (16)-(18). The event described by the predicate – Scout (the speaker) killing Jem (the hearer) – cannot logically have taken place, hence this is enough to exclude its temporal location in the past and to compel its interpretation as an action the speaker intends to perform in the immediate future.

- (20) Slušaj, Skaut, govorja ti săvsem seriozno, ako jadosvaš lelja, šte te ... šte te napljaskam. Tova me nakara da izbuxna.
  - Ah ti, proklet mafrodit, sega te ubix!
     INTJ you damn hermaphrodite now you.ACC killed.PFV.AOR.1SG
  - '- Now I mean it, Scout, you antagonize Aunty and I'll—I'll spank you. With that, I was gone.
  - You damn morphodite, I'll kill you!'

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<sup>&</sup>lt;sup>7</sup> Available at <a href="http://search.dcl.bas.bg/">http://search.dcl.bas.bg/</a> (last accessed: April 6<sup>th</sup>, 2023).

# 3.1.3. Serbo-croatian: the 'future aorist' and the optative

Descriptive grammars of Serbo-Croatian<sup>8</sup> (Barić et al. 1995; Stanojčić & Popović 1992) point clearly to the fact that the prototypically preterite meaning of the aorist can, in many cases, be overridden and acquire different temporal and modal properties. Barić et al. (1995: 413-14) explicitly mention the existence of a 'future aorist' (*futurski aorist*), stating that «the aorist expressing a relative past that refers to the future is used when the speaker is convinced that what is expressed by the aorist will happen in the near future. It is the so-called future aorist». So do Piper & Klajn (2013: 395), saying that it has «the general meaning of a future situation that is experienced and expressed expressively in a given sentence as if it had already happened» (translation mine).

- (21) Odoh ja!
  left.PFV.AOR.1SG I
  'I'm going (soon)' (Piper & Klajn 2013: 395)
- (22) Brže, podavismo se!

  faster choked.PFV.AOR.1PLREFL

  'Faster, we're chocking!'

  (Piper & Klajn 2013: 395)
- (23) Mogu li tvoji od zemlje živjeti? Ne mogu, ub-i nas suša can.PRS.3PL Q yours from land live.INF NEG can.PRS.3PL kill.PFV.AOR.3SG us drought '- Can your people live off the land? They cannot, the drought will kill us.' (J. Kosor, cited in Barić et al. 1995: 413)

<sup>&</sup>lt;sup>8</sup> I use here *Serbo-Croatian* as a term of convenience to refer to the standard language presently known as Bosnian-Croatian-Serbian (BCS) or Bosnian-Croatian-Montenegrin-Serbian (BCMS), where such labels are used to define a single pluricentric language with three or four intelligible varieties. While the question of whether these are to be considered one language or different languages involves delicate geopolitical issues, I stick to the position, held by most linguists, that Serbian, Croatian, Bosnian and Montenegrin are regional variants of one single language. See Bailyn (2010) for a discussion.

(24) Polomit će hrastove zapornje, razvaliti starodrevna vrata – izginusmo, break.INF FUT oaken pull down.INF ancient gates perish.PFV.AOR.1PL bars vuci i orlovi i pogibosmo, i junaci i sirotinja get killed.PFV.AOR.1PL and wolves and eagles and heroes and poor people and Oleh ban njegova Neva Nevičica! Oleg the Warden and his **Bride Bridekins** 'They will break down the oak stockade, batter down the ancient gates. We will perish, we will get killed —wolves and eagles, heroes and poor people, Oleg the Warden and his Bride Bridekins<sup>9</sup>!' (I. Brlić-Mažuranić, cited in Barić et al. 1995: 413)

(25) Što rekoh, ne porekoh
what said.PFV.AOR.1SG NEG retracted.PFV.AOR.1SG
'I will not retract what I said.'

Examples (21)-(22) are from everyday communication and are plainly equivalent to Russian (3)-(5) and Macedonian (16)-(18), in that they refer to the same situation types and in comparable pragmatic conditions. On the other hand, examples (23)-(24) are taken from literary works, whereas (25) is more like a saying or an idiom: this is consistent with the fact that agrist, as a general preterite tense (roughly corresponding to the English Past Simple), is typical of the register of narrative fiction, while in spoken language and in stylistically unmarked usage the Perfect is used. However, as noted in the above cited grammars, the use of the agrist in ordinary speech is not excluded and, in fact, expresses a sort of closeness between the speaker and the event itself, conveying, on the one hand, that the event is recent and has a connection with the speech time and, on the other hand, that the speaker's attitude towards the event is not neutral. Examples (23) shows that in Serbo-Croatian the past-for-future usage extends also to the 3<sup>rd</sup> person, as happens in Macedonian example (19). In (24) we note again that the narrative progression allows for the presence of tenses other than the past (the future-tensed *polomit* će 'they will break' and razvaliti će 'they will pull down') in the coordinate clause. Example (25) is striking for the presence of two agrist-tensed forms with opposite temporal readings: the first one, embedded in the fronted object clause, receives a default past interpretation in the absence of any contextual information, while the interpretation of the second in the main clause is shifted to a future time as the most salient reading, perhaps due to its Focus position.

Before closing this section, I have to mention another construction in Serbo-Croatian that could be a potential candidate as an instance of a past-to-future interpretive shift, the optative mood

<sup>&</sup>lt;sup>9</sup> Adapted from F. S. Copeland's translation (Brlić-Mažuranić 1922).

(*optativ*). Even if it pertains more to the domain of Modality rather than to that of Tense proper, this construction deserves attention in this respect at least because of its morphological makeup. In fact, the optative mood is realized by the same morphological form, the so-called 'active verbal adjective' (*glagolski pridjev radni*) in -*l*-<sup>10</sup> – essentially a past active participle – that is used in two analytical tenses, the Perfect and the Future II: in the former the auxiliary is the present of the verb *biti* 'to be', whereas in the latter it is the future. In both tenses the verbal adjective agrees in gender and number with the subject and conveys anteriority with respect to the time denoted by the tense of the auxiliary<sup>11</sup>. When the copula is dropped the construction with verbal adjective alone denotes a wish or hope of the speaker that the event described by the predicate be realized (necessarily, in the future with respect to the utterance time).

- (26) *U zdravlju pošla i što tražiš našla* in health gone.PFV.PTCP.PST.SG.F and what look\_for.IPFV.PRS.2SG found.PFV.PTCP.PST.SG.F 'May you be in health and find what you are looking for.'
- (27) Vrag ga odnio
  devil.M.SG him.ACC taken\_away.PTCP.PST.SG.M
  'May the devil take him!'

In this respect the pattern is rather similar to cases (A) in Russian (cf. §3.1.1) although the modality flavor is actually different (deontic for Russian, volitive for Serbo-Croatian).

# 3.2. 'Future for past'

As far as I can judge from the data I was able to collect, the future-for-past inversion has a more limited cross-Slavic distribution than that of the past-for-future. It is attested in Russian (and possibly also in Bielorussian and Ukrainian) and Polish, but among South Slavic languages only Macedonian displays a comparable behavior. The contexts of occurrence, too, are in some sense more restricted, as future-tensed verbs that refer to events that occurred in the past are found only in narrative

<sup>&</sup>lt;sup>10</sup> In the masculine singular, whose person/number ending is zero, the -l- morpheme is found in coda position and undergoes vocalization in [o]. Thus, the masculine singular -o ending alternates with -l- followed by a vocal (-a, -o, -i, -e) for the other person/number inflections.

<sup>&</sup>lt;sup>11</sup> As is quite evident, the *-l-* morphology of the Serbo-Croatian 'verbal adjective' is historically the same suffix of the Russian past tense morpheme *-l-* discussed in section 3.1.1. In Old Slavic the *-l-* perfect participle was used in the analytical preterite tenses, the Perfect and the Pluperfect, the latter of which was subsequently lost in Modern Russian, along with the synthetic preterite forms (the Aorist and the Imperfect), in such a way that the only surviving form of past tense in contemporary Russian is the descendant of the Old Slavic Perfect. Moreover, since the auxiliary in the Old Slavic Perfect was the present of the copula *byti*, which was also lost in Russian, subject agreement in the past tense is by number and gender and not by number and person.

environments (albeit not necessarily in written text), to denote habituality/iterativity. Given that future-inflected verbs with past reading are always perfective, this is an unexpected feature, since habituality is usually associated with imperfective aspect. There seems also to be a requirement that two or more verbs appear in the same narrative unit, so as to describe the sequence of actions that are typical of the *habitus*.

## 3.2.1. Russian (Ukrainian/Bielorussian?) and Polish: the simple future

In Russian, the so-called 'simple future' (*buduščee prostoe*) is formed from perfective stems and present-tense personal endings. In declarative sentences, a perfective verb in the present tense always conveys a future interpretation; in subordinate clauses it shifts forward the temporal reference (as expected in a non-SOT language), so in traditional grammars it is customary to call it 'future simple' to set it apart from the 'compound future', formed from imperfective verbs.

In its temporal reverse use the simple future is used to point to events that occurred repeatedly in the past, provided that there is an introducing past-tensed clause that sets the reference time, or the impersonal form *byvalo* ('used to'). In Russian linguistic tradition the use of the future simple in past contexts is usually referred to as the *nagljadno-primernoe značenie* 'demonstrative-exemplifying meaning'.

(28) Noč'byla tixaja, slavnaja, samaja udobnaja dlja ezdy.

die away.PFV.PRS/FUT.3SG

```
Veter to prošelest-it v kustax, zakačaet vetki, wind now rustled.PFV.PRS/FUT.3SG in bushes swing.PF-PRS/FUT.3SG twigs to sovsem zamret
```

'The night was quiet and splendid, perfect for a journey. A wind would rustle occasionally in the bushes, set the branches quivering and then die away.' [I. Turgenev. Stučit! [Zapiski oxotnika])

now at all

<sup>&</sup>lt;sup>12</sup> Translation by Richard Freeborn (Turgenev 1979: 232).

(29) Bylo u nego strannoe obyknovenie – xodiť po našim kvartiram.

Pridet k učitelju, sjadet i molčit, [...]

come.PFV.PRS/FUT.3SG to teacher sit\_down.PFV.PRS/FUT.3SGand keep\_silent.IPFV.PRS.3SG

posidit etak molča čas-drugoj i ujdet

sit\_for\_a\_while.PFV.PRS/FUT.3SG so keeping silent hour-other and leave.PFV.PRS/FUT.3SG

'He had a strange habit – of visiting our apartments. He would call on a teacher, sit down, and say nothing [...] He would sit like that, silently, for an hour or two, and then leave.' (A. Čechov. Čelovek v futljare)

Contrary to the cases seen in the preceding section, there is no requirement for the event to be a telic one: the verb needs only be perfective in aspect, as witnessed by *posidit* 'sit for a while' in (29) above. Note that the past setting is introduced in both examples above by the initial sentence with a copular predicate in the past tense.

In Polish, which, too, has a perfective simple future, the pattern is the same. This is shown in example (30), a translation into Polish (by Ludwik Szczepański, 1898)<sup>14</sup> of the same excerpt from Čechov's short story *The man in a case* in (29).

(30) Miał dziwny zwyczaj łażenia po naszych mieszkaniach.

Przyjdzie, siądzie i milczy, [...]

come.PFV.PRS/FUT.3SG sit\_down.PFV.PRS/FUT.3SGand keep\_silent.IPFV.PRS/FUT.3SG

Posiedzi tak w milczeniu za dwie godziny i odchodzi.

sit\_for\_a\_while.PFV.PRS/FUT.3SGso in silence for two hours and leave.PFV.PRS/FUT.3SG

# 3.2.2. Macedonian: ke-future with perfective verbs

In Macedonian the future marker ke can be used with present-inflected perfective verbs to express an iterative or habitual meaning. This kind of perfective future, however, has a special status: as a rule, ke attaches to imperfective verbs to express the simple future, whereas present-inflected forms of perfective verbs are blocked in matrix sentences (that is, they cannot be used independently). Moreover, the habituality covers all temporal dimensions, not only the past, so it looks like more of a (semantically) tenseless form. (Panovska-Dimkova 2020; Koneski 1967). Cf. also example (2).

<sup>14</sup> Available at <a href="https://pl.wikisource.org/wiki/Człowiek">https://pl.wikisource.org/wiki/Człowiek</a> w futerale (last accessed: May 2<sup>nd</sup>, 2023).

<sup>&</sup>lt;sup>13</sup> Translation by Richard Pevear and Larissa Volokhonsky (Chekhov 2000: 301).

(31) Ke dojde, ke sedne, pa ke stane i

FUT comes.PFV.3SG FUT sits\_down.PFV.3SG then FUT stands\_up.PFV.3SG and

ke si izleze, bez da prozbori.

FUT REFL.DAT goes.PFV.3SGwithout that speaks.PFV.3SG

'He used to come and sit down, then he would get up and leave without saying a word.'

(Usikova 2003)

# 4. Deriving the temporal inversion: a (tentative) proposal

The survey of cases of apparent temporal reversal in Slavic languages provided in section 3 gives rather strong evidence that such mismatches between the Tense inflection and the time of the event do arise only in particularly salient situational or discourse contexts: to be more precise, past-for-future interpretations come into being only when the situation in which the sentence is uttered provides some clue that the proposition *p* contained in the predicate is not (yet) true in that situation (i.e. the situation that temporally includes the utterance time). Future-for-past interpretations seem instead to rely more on the discourse environment, viz. a salient reference time is set by the preceding sentence(s) (as in (28): 'The night was quiet and splendid') or is more generally picked up by default, as an indefinite past time span in which the situation described by the future-inflected predicates occurred repeatedly or habitually (recall that future-for-past interpretations usually require that two or more verbs/predicates be coordinated in the sentence).

Against this background, and whatever explanation one may want to give for the 'reversal' of the temporal interpretation, contextual information must enter the picture and be somehow represented in the syntactic structure, perhaps by some abstract/silent heads. It may also be conjectured that the morphology of 'past' or 'future' in the data just reviewed is only apparent and in Russian there are, for example, two distinct but homophonous heads in morphosyntax, phonologically realized as *-l-*, one having the semantics of a 'true' past, and the other conveying a 'shift' of the event time to an interval after the utterance time.

In the very preliminary analysis that I am going to sketch in this section, I will assume, instead, the working hypothesis that there is no syncretism in morphology, hence different interpretations of a morpheme (as it is phonetically realized at the PF interface) must depend only on the syntactic environment where it is inserted (Manzini & Savoia 2007 and subsequent works), to the exclusion of any post-syntactic operation (e.g. Impoverishment or Underspecification in Halle & Marantz's (1993) Distributed Morphology). In such a way, a piece of morphology – say, Russian -*l*- past – is taken to be a *bona fide* past marker, but with a semantics that is flexible (and minimal) enough to allow also for those futural interpretations obtained under certain pragmatic and discourse conditions.

My tentative proposal will be based, on the pragmatics side, on the general framework provided by Relevance Theory (Wilson & Sperber 1993; Sperber & Wilson 1995) and – within that framework – on Smith's (1990) paper on tense. As to the morphosyntactic and semantic side, I will implement Iatridou's (2000) view of past tense morphology as an 'Exclusion Feature' that can range over times or over worlds. In the following two subsections I will thus briefly outline these background concepts.

# 4.1. Background (1): Relevance Theory and Tense (Smith 1990)

As is well known, Relevance Theory (henceforth RT) treats the interpretation of utterances as a process that involves two distinct phases: (1) a modular decoding phase delivers the linguistically encoded logical form of the utterance to (2) a central inferential phase, in which it is developed by contextual enrichment and used to construct a hypothesis about the speaker's informative intention. A crucial step in the second phase is the construction of an 'explicature' that enriches a linguistically encoded logical form to a point where it expresses a determinate proposition which can further be embedded under higher-level descriptions to generate the higher-level explicatures of the proposition expressed by the utterance (i.e. the low-level explicature). The construction of explicatures is driven by the Communicative Principle of Relevance, which states that "every act of ostensive communication communicates a presumption of its own optimal relevance" (Sperber & Wilson 1995: 158). In such a way the hearer can construct explicatures for an utterance and select the 'right' one(s) guided by the expectation that the speaker would be maximally relevant in this respect.

Smith's (1990) programmatic aim is to show that RT principles can fruitfully be applied to the domain of temporality in language and, more specifically, to show that some uses of tense (e.g., the narrative past) that are recalcitrant to an analysis in terms of tense logic can be more readily explained by relevance-theoretic considerations. For the purposes of this paper, it will suffice to focus on two topics in Smith's work: the nature of 'context' when at issue is the temporal interpretation of utterances, and the dichotomy between 'descriptive' vs. 'interpretive' uses of tensed predicates.

As Smith points out, contextual information is always a variable and is never 'given in advance', i.e., the context of an utterance can only be accessed in the course of the comprehension process, building on the presumption of optimal relevance of the utterance:

[An] utterance takes place in a physical setting of which you are aware, and which makes accessible a subset of your encyclopaedic knowledge, but beyond this you can have no prior certainty about the propositional content of the context you will need to assume in order to achieve such relevance. Only when you hear your caller say 'Do you worry about the state of the world?', do you access a context including evangelical proselytization rather than a mental map of the locality (Smith 1990: 83).

The other RT principle highlighted by Smith that I will make use of is the notion of 'interpretive' reading, as opposed to that of 'descriptive' reading<sup>15</sup>. Smith claims that the variety of temporal and aspectual reference that a single grammatical tense may convey need not be fully encoded in its semantics, but simply derived pragmatically from a single semantic representation. So, in (32) the present tense is used descriptively: it is simply a property that is being predicated of Mary, yielding the habitual reading.

(32) Mary climbs the Matterhorn

In (33) and (34) things are slightly more complicated and we have to interpret the utterance of the same sentence in (32) within a context, i.e. interpretively.

(33) This is the story in which Mary climbs the Matterhorn:

(34) [headline:] Mary climbs the Matterhorn

As Smith (1990: 91-92) puts it,

in both cases the sequence in (32) is used interpretively: in (33) the preclusive 'this is a story' gives an explicit indication that the embedded clause is a précis summary of the entire story. That is, it resembles the story by selecting the most important or most salient episode of that story and highlighting it, and hence will have partly identical contextual effects. The headline of (34) is interpretive in a similar way, condensing the core of the following story into a few words.

# 4.2. Background (2): counterfactuality and 'fake past' (Iatridou 2000)

Iatridou's (2000) influential paper started from the observation that a very widespread pattern in natural languages for the expression of counterfactuality is the use of the past tense, in the same fashion as it happens in English wishes (35), counterfactual conditionals (36) and 'Futures Less Vivid' (37), where the past morphology fails to contribute a past interpretation (thus, it is a 'fake past').

<sup>&</sup>lt;sup>15</sup> In Sperber & Wilson's (1995: 228-29) original formulation the distinction is expressed as follows:

Any representation with a propositional form, and in particular any utterance, can be used to represent things in two ways. It can represent some state of affairs in virtue of its propositional form being true of that state of affairs; in this case we will say that the representation is a *description*, or that it is used *descriptively*. Or it can represent some other representation which also has a propositional form - a thought, for instance - in virtue of a resemblance between the two propositional forms; in this case we will say that the first representation is an *interpretation* of the second one, or that it is used *interpretively*.

- (35) *I wish I had a car* (conveys 'I don't have a car now')
- (36) If he were smart, he would be rich (conveys 'he is not smart' and 'he is not rich')
- (37) If he took the syrup, he would get better (conveys 'he is not likely to take the syrup' and 'he is not likely to get better')

Iatridou pursues an approach to the morphological syncretism between 'true' and 'fake' pasts where one and the same morpheme always has the same meaning, but the domain it operates on varies according to the environment. A clue that this approach is the right one comes from past counterfactual conditionals, where one layer of past seems to contribute the counterfactual meaning and another one the past meaning. Notably, the tense in (38) has not the meaning of an English Past Perfect (Pluperfect), i.e. the time interval at which the possession of the car holds is in the past but not before another past event.

(38) I wish I had had a car (conveys 'I didn't have a car at some time in the past')

The solution envisaged by Iatridou is the idea that the so-called 'past tense morpheme' lexicalizes an 'Exclusion Feature' (ExclF for short) that is defined as having a skeletal meaning of the form (39).

(39) ExclF = T(x) excludes C(x).

T(x) stands for 'Topic(x)' (i.e., 'the x that we are talking about').

C(x) stands for 'the x that for all we know is the x of the speaker.'

The Exclusion Feature can range over times (t) or over worlds (w). The past tense morpheme, thus, results in a past tense interpretation when it ranges over times and in a counterfactual interpretation when it ranges over worlds:

- (40) ExclF(t) = the topic time excludes the time of utterance ('the time interval that we are talking about excludes the time interval that for all we know is the time of the speaker')
- (41) ExclF(w) = the topic worlds exclude the actual world ('the worlds that we are talking about exclude the worlds that for all we know are the worlds of the speaker')

The notion of 'topic time' is intended in Klein's (1994: 4) sense: the Topic Time (notated TT) is «the time span to which the speaker's claim on this occasion [e.g. an answer given relative to a certain fact] is confined». Iatridou (2000: 246) stresses that the definition of past tense should be understood exactly as in Klein's conception, i.e. as «a temporal relation of precedence between the topic time and the utterance time and not between the utterance time and the situation (or event) time (the interval

throughout which the predicate holds)». Otherwise, framing the semantics of the past tense in terms of the ExclF would not be possible. As to the intensional version of ExclF (i.e. ExclF(w)), the actual world is more properly termed 'the worlds of the speaker', since «the content of someone's knowledge of the world is given by his class of epistemically accessible worlds» (Iatridou 2000: 247, fn. 21). In other words, C(w) stands for any world w that is such that the speaker cannot explicitly or implicitly rule out that w is the world where s/he lives. The 'topic worlds' are those possible worlds that we are talking about in which the proposition p (say, 'I have a car now' in (35)) holds, but the exclusion relation does not preclude that p may hold also in the actual world: «all a CF conditional marks is that the actual world is not among the p worlds that we are talking about; it does not mark that the actual world is not among the p worlds». A proof for this statement comes from the fact that counterfactual conditionals are normally cancelable: if we append to (36) the statement 'indeed he's smart and he's rich', we can cancel the counterfactual content without producing a contradiction. As will be made clear later, things are slightly different if the source of counterfactuality is contextual information.

### 4.3. RT + ExclF: implementing an explanation

In this section I will lay out a proposal for deriving the reverse temporal interpretations that were briefly discussed in section 3.1, building on Iatridou's ExclF and assuming that – at least in the Slavic languages where instances of 'past for future' are found – it can be active at the syntax/pragmatics interface as it is conceived in RT.

I will concentrate on cases like those listed under point (A) of section 3.1, assuming that for those remaining (and for the optative constructions in Serbo-Croatian) the reasoning is essentially the same, but the additional complications that arise due to their modal nature would require extra assumptions. For concreteness I will consider one simple example only, in Russian, and illustrate just the basic steps at LF and in the decoding and inferential phases that – if my hypothesis is grounded – lead to the past-for-future interpretation. I take it that similar considerations may apply to the agrist in Serbo-Croatian, Macedonian and Bulgarian, with slight modifications.

Consider example (4), repeated below for ease of exposition. I assume that the past tense morpheme -*l*- has an ExclF semantics, consequently it can range over times or worlds.

Now, consider the following:

- A) Leaving aside the -*l* inflections, which we take for a lexicalization of ExclF, the information encoded in the verb, both in the morphosyntax (the verb is marked for perfective aspect) and in the lexical semantics (*pojti*, properly 'start going on foot' is an inchoative)<sup>16</sup> denotes a change-of-state, **telic event**<sup>17</sup>, which corresponds to a part of the propositional content that is recovered in the modular decoding phase (according to RT). It is part of the logical form of the utterance.
- B) A telic event is usually assumed as the **effect** of some **cause** or causer; at least some input is generally required to trigger a change of state. The existence of cause-effect relations that hold between different types of events is part of human cognition, as is the fact that such relations have an intrinsic directionality in time: the cause is always before the effect. It has been repeatedly observed that speakers, for example, use this 'world knowledge' to determine the relative temporal order of events in sequences of sentences. Dery (2009) shows that in a tenseless language like Tagalog, world knowledge of cause and effect, along with aspect marking, plays a large role in the temporal interpretation of narrative discourse. Tarantola (2010: 158) in his analysis of temporal reference in Capeverdean creoles, arrives at the generalization that «the order of events is strictly causal in the absence of tense morphology» (dubbed the 'Causal Correspondence Principle'). What I would like to argue here is that in RT central inferential phase, the telic nature of the event in (4) and the fact that it is being predicated

<sup>&</sup>lt;sup>16</sup> The distinction I do here between the aspectual morphological marking and the inherent actional class is something of an oversimplification, since verbs in Russian (and in Slavic in general) generally come in aspectual pairs, usually formed by prefixation of an unprefixed imperfective, as it happens in this case, where *po-jti* 'to go on foot' (PFV) is formed from *idti* 'to go on foot' (IPFV) by prefixation with *po-*. I have glossed *pojti* in the text above as 'start going on foot' since in the example the verb lacks a complement like *v školu* 'to school' (in such a case the actionality would be more resultative than inchoative). The relationship between viewpoint aspect and the inherent actionality is one of the most debated topics and has generated an impressive amount of literature on Russian aspect, so this simplification will do for the purposes of this article.

<sup>&</sup>lt;sup>17</sup> An anonymous reviewer raises the question of whether the past-for-future shift may be triggered by the semantics of the verb prefix rather than by the viewpoint aspect marking, suggesting that in a case like (4), it is the inchoative meaning of the prefix po- (which denotes the beginning of the unidirectional movement expressed by the verb) that is relevant, since an action that has not yet begun is presented, precisely, as already begun, not carried out and concluded. The reviewer notes also that the same is true in future-for-past contexts for the prefix za- with inchoative meaning (e.g., zamret in example (28)). While it is uncontroversial that Russian verb prefixes, besides being aspect-changing markers, have their own meaning and modify the core semantics of the unprefixed verb, the reviewer's observation is in some sense true, in that the speaker's assertion in (4) is relative to a sub-event of a larger event in which it is included (the initial point/interval of the overall time span of the event of going). However, as will be made clearer in the following, it is precisely the telic nature of this sub-event (change of state from 'being at some location l' to 'not being at some location l') that is relevant for the past-for-future reading, not the fact that the larger event has not yet concluded. This conclusion is strengthened by the fact that past-for-future readings are not restricted to unidirectional verbs of motion and do not require the verb prefix to denote inchoativity, as witnessed, for example, by forms like *ubila* in (5) or ubral in (7). Moreover, strictly speaking, perfectivization by prefixation is not an essential ingredient in past-for-future usages, since such readings can arise as well with unprefixed perfective verbs like dvinulis' in (11) or kosnulis' in (12). For the questions related to the interplay between Aktionsart and viewpoint aspect in Russian, see also the remarks in the preceding footnote 16.

of the speaker give rise to an explicature that is, roughly, as in (42):

- (42) Before some time point t (the time of the event) the speaker is at location l. After t s/he is not at l.
- C) Recall that for RT context is not given in advance: contextual information is always construed on the presumption of optimal relevance of the utterance. In the light of the logical form/propositional content of (4) and of explicature (42), the physical setting of the utterance becomes relevant. In more precise RT terms, a subset of the shared cognitive environment is singled out, i.e. the fact that speaker is physically present in the location where the conversational exchange takes place. The mutual manifestness of this fact, once (4) is uttered, becomes relevant, in that the assumption in (43) serves as the premise to the **contextual implication** in (44).
- (43) The speaker is here now.
- (44) The time point at which the speaker leaves on foot is not within the time interval that includes the utterance and the preceding conversation (no matter how large this interval is).
  - The contextual implication is strengthened by another circumstance: the event predicated in the logical form of the utterance cannot be evaluated at any definite or indefinite time, since the utterance does not contain adverbials or adjuncts that may contribute to fixing it on some point/interval, neither deictically with respect to the utterance time, nor anaphorically with respect to any other salient time that may have been already set.
- D) Contextual information triggers an **interpretive reading** of the utterance: the physical presence of the speaker (contextual information (C)) is clearly at odds with a 'standard' reading by which the past tense in (4) points to an indefinite time before the utterance time. Put another way, on the presumption that the speaker wants to be maximally relevant the hearer is forced to exclude a 'descriptive use' of (4). In Wilson & Sperber's (1993) terms, a procedurally encoded constraint is put on the proposition expressed by (4), on explicature (42) and on contextual implication (44).

Given all the above, how does ExclF enter the picture? I argue that the interpretive reading (D) consists precisely in it, that the ExclF in (4), represented by the 'past' morpheme -l-, ranges over worlds and not over times.

To make this point clearer, consider again Smith's examples (33) and (34): the description (32) is embedded (syntactically in the former case and contextually in the latter) in an environment that

provides an indication for the interpretive use of the present tense of that description. Now consider Iatridou's 'fake past' in (35)-(36): the ExclF must obligatorily range over worlds when embedded in an if-clause or under wish. In a nutshell, what is claimed here is that the contextual embedding in (C) prevents ExclF to range over t (time) and forces it to range over w (worlds) yielding the semantics in (41) (the topic worlds exclude the actual world). In more informal terms, the event of leaving in (4) is interpretively read off as located in another possible world than the actual world.

If we come back to Iatridou's observation that in a counterfactual conditional nothing prevents the actual world from being a p world, we can note that this condition does not hold in our case. It is precisely the contextual implication stated in (44) that further implies that the actual world is not among the p worlds. So, counterfactuality is in some sense 'real', it is constrained by the actual world and is not cancelable.

At this point, we have a set of possible worlds quantified over by ExclF, but within the domain of these possible worlds temporality is not canceled/erased or abstracted away. Iatridou (2000: 252) states that

it is possible inside the topic worlds that exclude the world of the speaker/actual world to refer to time points/intervals of the world of the speaker/actual world [...] time points/intervals in the topic worlds are interpretable because time is absolute across possible worlds. This means that the reference of expressions like *February 22, 1995, now, tomorrow* will be the same in different possible worlds and by extension, the same in the topic worlds as in the actual world.

So, in each world  $w_1$ ,  $w_2$ ,...  $w_n$  there would be (in Klein's (1994) notation) a topic time  $TT_1$ ,  $TT_2$ ,...  $TT_n$ . How are these topic times related to the time of utterance TU (if they are)? Recall that for Klein, in natural languages, the relationship between TT and TT is marked by Tense, and the topic time is «the time span to which the speaker's claim on this occasion [e.g. an answer given relative to a certain fact] is confined» or «a time about which he or she wants to make an assertion, and the speaker is also free to decide how 'long-lasting' the assertion is intended to be» (Klein 1994: 122). If the Topic time has not been fixed in the discourse or by adverbials, and in the absence of explicit morphosyntactic marking of the TT (as is the case in (4), since *-l-* inflection does not range over times), the default TT is taken to be the time of utterance TU. In (4) this might well be the case, but we need consider also that, in relevance-theoretic terms, there is a higher-level implicature that the speaker, on the presumption of optimal relevance, is communicating her/his intention to perform a certain action (necessarily, in the future). Moreover, an illocutionary-force indicator, the particle nu, poses a procedural constraint in this direction. Thus, we can say that TT is after TU. If we translate this into the more familiar (E)vent Time, (R)eference Time and (S)peech Time of Reichenbach (1947)

and of most neo-Reichenbachian approaches (e.g. Hornstein 1990; Giorgi & Pianesi 1997) we get:

## (45) S R

[Tense (for Klein): 'future']

Let's turn now to the relation between the Reference Time and the Event Time. As stated above in (A) the information encoded in the verb (perfective aspect, inchoative Aktionsart) denotes a telic event. The time at which a telic perfective event occurs (E) must necessarily be evaluated after that time, so E precedes R. Explicature (42) essentially says: the event of leaving is evaluated at any time after the event time t when the speaker is not at location t; in other words, 'the time we are talking about' is a time when the speaker is no more at that location. Thus, the relationship we posit to hold between R and E is:

# (46) E R

[Aspect (for Klein): 'perfect']

If we finally merge (45) with (46) we get the compositional product of the two relations as in (47).

(47) 
$$(S R) \cdot (E R)$$

['future perfect' (Hornstein 1990: 117; Giorgi & Pianesi 1997: 29)]

At first sight, the result we get is not as desirable as we want, if we consider the equivalent to (4) that we would get using the English Future Perfect ('I will have gone'). Nonetheless, I believe there are two reasons not to worry about this issue. The first reason is that the usage of this tense in English is restricted to what RT qualifies as 'descriptive use', with few pragmatics involved, contrary to the cases we are dealing with here. The second, more important reason is that the future perfect and the future in past are the only two tenses (out of eleven logically possible ones) where the relation between E and S cannot be unambiguously inferred<sup>18</sup>. In this respect, the idea that past-for-future constructions instantiate a temporal configuration as in (47) may be supported by the observation that an utterance like (4) does tolerate some complements or adjuncts without becoming too odd, but becomes unacceptable with temporal adverbials, except for *teper*' 'now'.

(48) Nu, ja pošël v apteku s Mašej kupit' lekarstva
INTJ I go.PFV.PST.SG.M to pharmacy with Masha buy.INF medicines
'Well, I'm going with Masha to the pharmacy to buy medicines.'

 $<sup>^{18} \</sup>text{ It can, for example, in the present perfect ( } (S,R) \bullet (E\_R) = E\_S,R \text{ ) or in the future ( } (S\_R) \bullet (R,E) = S\_R,E).$ 

(49) Nu, ja pošël (\*minut čerez pjat') (\*čerez minutku / sekundu)

INTJ I go.PFV.PST.SG.M minutes in five in minute second

'Well, I'm going (in about 5 minutes) (in a minute / in a second).'

This suggests that there must be an extra assumption, again supplied by pragmatics in the form of a higher-order implicature, that E must immediately follow S. It is reasonable to assume that such an implicature arises from contextual inference in a situation like the one described: if the speaker is informing the hearer about the fact that in the future s/he will leave, without providing the temporal reference of her/his leaving, the speaker is probably also conveying that this will happen almost immediately. This would also explain why the restriction for an 'immediate future' reading is not found in example (3), where a salient future time has been already set in the discourse.

Approaching the end of this section, I have said nothing about the future-for-past interpretations exposed in section 3.2. One would like, of course, to propose a unified account for the past-for-future and future-for-past reversals, saying, for example, that the temporal properties of the future-for-past can be derived in the same fashion as for the past-for-future, leaving the relation between the Event time and the Reference time unchanged (E\_R, for perfective aspect marking, and so on), and reversing the relation between the Reference time and the Speech time (R\_S). Unfortunately, this is not achievable and would not work, for several reasons. The first, trivial one, is that to attain (R\_S) from the future tense with the same machinery, we should perhaps posit something like a 'fake future', which seems quite unlikely. But the very reason why it is not possible – at least for Russian and Polish – is that the examples presented in §3.2.1 have indeed present morphology, which, when combined with perfective aspect, always produces a future reading.

Grønn (2011) offers a convincing explanation of the mysterious reason why in past context the present perfective does not even shift the event forward and, instead, a habitual past reading arises. His proposal is very articulated and it is not possible to go into its detail here, but, in short, the idea is that present-tensed perfective verbs as those in examples (28)-(29) are semantically tenseless because they are embedded under an overt or covert verbal quantifier *byvalo* ('used to') that quantifies over subintervals of the (large) time interval of the *habitus* in the past, allowing the realization of a complete perfective event for each subinterval. Since Russian is a non-SOT language, in complements that are temporally controlled by the operator/verbal quantifier *byvalo* the present tense is licensed, while perfective aspect, in a tenseless environment, just reflects the punctual Aktionsart of the event.

### 5. Some concluding remarks

In this paper I have investigated cases of apparent inversion of the temporal reference in Slavic languages, concentrating on those where a past morphology receives a future interpretation.

Adopting Iatridou's (2000) Exclusion Feature and combining it with principles of Relevance Theory I have proposed that ExclF in the cases at issue does not range over times but over worlds, making the futurate interpretation available. An observation that was made, namely that the future interpretation with 'past' morphology is only available for telic events, fits nicely with Iatridou's partitioning of counterfactual conditionals into Present Conditional and Future Less Vivid, where the latter is future-oriented only in virtue of containing a telic predicate.

Some general remarks can be made. First, what we call 'past tense' has more of an interpretation than a morphology that rigidly assigns temporal reference (this is nothing new in the field, but the data presented here provide additional evidence). Second, explicatures, contextual enrichments and other operations assumed in the RT framework, are able to manipulate small pieces of morphology and 'create' meaning. This, too, is not a discovery, but, again, a small piece of evidence is added.

There are, as usual, some questions that remain open and require further investigation. One of the issues concerns the distribution of these constructions and the speaker's choice in using them: why does the speaker choose to utter (4) instead of uttering a sentence with the present or the future tense? Why are such past-for-future utterances usually short and do not allow too many adjuncts or complements? These two questions are intertwined, and the answer lies probably in the processing cost-benefit ratio, so I would like to advance here a suggestion in this respect. An utterance like (4), in relevance-theoretic terms, is costly at the decoding and inferential phase: if I am on the right track in saying that the ExcIF quantifies over worlds, this amounts to a heavier computational load, as quantification over worlds requires probably more cognitive resources than quantification over times. Contextual enrichment, too, must be 'richer' and the number of required explicatures is higher. On the other hand, the utterance is more effective in illocutionary force and in carrying the speaker's communicative intention. If the intention of the speaker were more informative than communicative (for example, informing the hearer at what time s/he is going to leave), s/he would probably use the simple future (= perfective present).

Finally, a point I have left vague in this paper is the representation in the syntactic structure of a sentence like (4): as I have phrased it (in the decoding inferential phase it the utterance is 'embedded' under a contextual implication), it may seem that a clearly syntactic object, namely ExclF, comes at LF unsaturated and gets 'filled' by t or w only at a later stage, in pragmatics. Of course, this cannot be the case, and at LF there must be either ExclF(t) or ExclF(w), and since (4) is a simple clause and it is not embedded under a conditional or a wish verb, we should conclude that it can only be Excl(t). However, in Russian 'fake past' morphology indeed appears in counterfactuals and wishes, but always

requires the subjunctive marker by to appear as well<sup>19</sup>. Asarina (2006) proposes a formal denotation for ExclF and for subjunctive by in Russian: without going into the details of her proposal, she shows that for ExclF to work as a regular past tense, it must take a predicate where the world argument is already saturated by  $w_a$  (the actual world); conversely, if by merges, it directly takes the predicate as an argument and then gets quantified over by ExclF. Put simply, a 'true past' structure must be fed by values  $w_a$  (the actual world),  $t_a$  (utterance time) and  $t_t$  (topic time), whereas a 'fake past' is fed by  $w_a$  only, while the subjunctive morpheme by quantifies over times in possible worlds. If the topic time  $t_t$  is supplied, then we get a past time, but what if the topic time is not supplied (and there's no subjunctive marker by in the structure)? Manzini & Roussou (2012), arguing against empty categories and abstract functional heads of mainstream generative research, contend that interpretive enrichments can be produced at LF whenever needed, by the introduction of operators (i.e.  $\lambda$ -abstracts) that create the relevant relations. Building on this, I would like to suggest that the structure containing ExclF – if no topic time  $t_t$  is provided – is interpretively enriched at LF by the introduction of an operator, and that such an operator has basically the semantics of the subjunctive by (existential closure on time in possible worlds). I leave this as a possible development in my future work.

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<sup>&</sup>lt;sup>19</sup> In counterfactual conditionals *by* must go together with the past-tensed verb both in the antecedent and in the consequent.

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