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# FORMAL DESCRIPTION OF SLAVIC LANGUAGES: THE NINTH CONFERENCE

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# **Futures, Futurates, Plans and Forces**\*

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### **Abstract**

In this paper we account for some novel contrasts in the distribution of futurate, simple and periphrastic future forms in Polish. We work out the formal semantics of these forms using a force-theoretic framework recently proposed by Copley (2012) and Copley & Harley (2011). More precisely, we explain how the semantics of these forms constrains their distribution depending on the availability of a plan in the context of use.

### 1 The issue

(a)

Polish uses two types of constructions to express a future time reference: i) a "simple future" (= SF) (see (1)) and ii) a "periphrastic future" (= PF) (see (2)).

- (1) Ajax zagra z FC Porto.

  Ajax play.prs.perf.3sg with FC Porto

  'Ajax will play with FC Porto.'

  (it cannot mean: 'Ajax is playing with FC Porto.')
- (2) Ajax będzie grał / grać z FC Porto. *PF*Ajax be.aux.3sg play.prt.impf.sg.m play.inf.impf with FC Porto
  'Ajax will be playing with FC Porto.'
  (it cannot mean: 'Ajax is playing with FC Porto.')

SF is a present tense form of a perfective lexical verb. If one looks closer at the morphological composition of SF, it will become clear that it does not contain any morpheme which could be taken to correspond to "future tense" *sensu stricto*. In fact, the morphological make-up of SF is identical to that of a present tense form in Polish except for the presence of a "perfectivizing" prefix in SF. The fact that in SF we have perfective aspect and present tense will be –

<sup>1</sup> Compare the following present tense and simple future forms of 'write':

present tense	(b) simple future
ja <i>piszę</i> <sub>1.sg</sub>	ja <b>na</b> piszę <sub>1.sg</sub>
ty piszesz <sub>2.sg</sub>	ty <b>na</b> piszesz <sub>2.sg</sub>
on <i>pisze</i> <sub>3.sg</sub>	on <b>na</b> pisze <sub>3.sg</sub>
my <i>piszemy</i> <sub>1.pl</sub>	my <b>na</b> piszemy <sub>1.pl</sub>
wy <i>piszecie</i> <sub>2.pl</sub>	wy <b>na</b> piszecie <sub>2.pl</sub>
oni <i>piszą</i> <sub>3.pl</sub>	oni <b>na</b> piszą <sub>3.pl</sub>

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as we will see later in the paper – crucial for the derivation of a future time reference.

As far as PF is concerned, it consists of the so-called "future auxiliary"  $b \neq dz ie$  complemented with an imperfective lexical verb in form of an l-participle or an infinitive (see (2)).<sup>2</sup>

In the rest of the paper we will call SF and PF "real future forms" meaning by this that these forms can only have a future meaning. This is important because in Polish – as is the case in many other languages – in addition to real future forms mentioned above, there are "futurates" which as such are not future forms, but nonetheless can (at least in some contexts) refer to future-oriented eventualities (see Copley 2008; 2012); cf. (3). Morphologically, they are imperfective forms of present tense verbs. Unlike PF and SF, they are ambiguous between a present tense and a future time interpretation.

(3) Ajax gra z FC Porto. futurate
Ajax play.prs.impf.3sg with FC Porto
'Ajax is playing with FC Porto (at the moment of speaking or in the future).'

The morphological difference in the aspectual marking of the lexical verb in the case of real future forms (i.e., the perfective marking in SF vs. the imperfective marking in PF) is manifested in their aspectual semantic differences: while PF is compatible with duration adverbials ('for an hour') (4b), SF is compatible with 'frame' adverbials ('in an hour') (4a).

- (4) a. Napiszę list w godzinę / \* (przez) godzinę. SF write.prs.perf.1sg letter.acc in hour for hour 'I'll write a letter in an hour.'
  - b. Będę pisać list (przez) godzinę / \* w godzinę. *PF* be.aux.1sg write.inf.impf letter.acc for hour in hour 'I'll be writing a letter for an hour.'

These facts are usually mentioned in traditional descriptive literature on Slavic aspect. They may appear very simple and clear at first glance, but when we look at them more closely, we will discover that these three "harmless" future constructions, SF, PF and futurates, give rise to serious linguistic considerations. First of all, the difference between the two real future forms (PF and SF) – as we will see below – is definitely more than just aspectual. Secondly, it is not always the case that these three ways of referring to future

<sup>2</sup> The choice of an infinitive or an *l*-participle as a complement in a periphrastic future form does not cause any semantic difference. For more discussion on this point, see Błaszczak, Jabłońska, Klimek-Jankowska & Migdalski (2012).

events (i.e., SF, PF and futurates) are freely exchangeable. So, for example, there are contexts in which one of these three forms is strongly preferred whereas the others are deviant and not suitable. For instance, in a context of "getting married" which necessarily involves a plan only futurates but neither PF nor SF are pragmatically plausible; cf. the contrast between (5a) and (5b,c).

- (5) A: Are you going to John's wedding tomorrow?
  - B: What are you saying, John's wedding?
  - A: Yes, John's wedding! Haven't you heard that
  - a. ok Jan żeni się (jutro). futurate

    Jan get-married.prs.impf.3sg refl tomorrow

    'Jan is getting married (tomorrow).'
  - b. #Jan będzie się żenił (jutro).<sup>3</sup> *PF*Jan be.aux.3sg refl married.prt.impf.sg.m tomorrow
    lit. 'Jan will be getting married (tomorrow).'
  - c. #Jan ożeni się (jutro). SF

    Jan get-married.prs.perf.3sg refl tomorrow
    lit. 'Jan will get married (tomorrow).'

In contrast, in contexts such as "offering" which – as will be shown below – do not involve a plan only SF forms but neither PF nor futurates are suitable; cf. the contrast between (6a) vs. (6b,c).

- (6) a. ok Jeśli chcesz, naprawimy ci auto. SF if want.prs.2sg repair.prs.perf.1pl you.dat car.acc 'If you want, we will repair your car.'
  - b. #Jeśli chcesz, będziemy ci naprawiać auto. *PF* if want.prs.2sg be.aux.1pl you.dat repair.inf.impf car.acc lit. 'If you want, we will be repairing your car.'
  - c. #Jeśli chcesz, naprawiamy ci auto. *futurate* if want.prs.2sg repair.prs.impf.1pl you.dat car.acc lit. 'If you want, we are repairing your car.'

Finally, in a context like (7) – an "I am amazed that ..." context – the best suitable form is PF; SF is pragmatically deviant in such a context, a futurate form sounds good but it is hard to interpret it as unambiguously referring to a future eventuality (as is required in (7)).

<sup>3</sup> The pragmatic implausibility is indicated by means of "#".

- (7) A: Have you heard the latest news? The boss chose John to organize the biggest conference we have ever had.
  - B: Jestem zaskoczony, że najbardziej niezorganizowana osoba be.prs.1sg amazed that most unorganized person w naszej firmie in our company
  - a. ok będzie organizować tak ważną konferencję. *PF* be.aux.3sg organize.impf.inf so important conference 'I am amazed that the most unorganized person in our company will be organizing such an important conference.'
  - b. #zorganizuje tak ważną konferencję. *SF* organize.prs.perf.3sg so important conference lit. 'I am amazed that the most unorganized person in our company will organize such an important conference.'
  - c. #organizuje tak ważną konferencję. *futurate* organize.prs.impf.3sg so important conference lit. 'I am amazed that the most unorganized person in our company is organizing such an important conference.'

The fact that some "future" forms in (5)-(7) are deviant does not result from the ungrammaticality of these forms (since all of them – as evidenced in (1)-(3) – are well-formed), but it must be attributed to some kind of incompatibility of the semantics of these forms with the intended interpretation/context of use.

The main goal of the paper is twofold: first, to answer the question of what the semantics of the forms in (1)-(3) must be given their different distribution; second, to explain how this semantics interacts with different contexts and thus to answer the question of why some of these are pragmatically more plausible in a given context while the others are deviant. By addressing these questions we subscribe to a recent trend in semantic research which is to look for very fine-grained crosslinguistic semantic parameters, thus throwing a new light on the apparently well understood categories whose meanings are taken to be established and fixed within clearly determined boundaries (see, e.g., de Swart 2007; de Swart & Zwarts 2008; Farkas & de Swart 2009; Farkas & de Swart 2010; Le Bruyn 2010; Matthewson 2011; among others).

The paper is organized as follows. In section 2, we descriptively discuss the differences in the distribution between PF, SF and futurates in Polish. On the basis of the already observed contrasts in (5)-(7), enriched with additional contexts, we draw some preliminary conclusions. In short and very informally, the choice between real future forms (PF and SF) and futurates is a result of the

negotiation along two parameters: (i) expressing the meaning that a future event is a necessary realization of a plan and (ii) expressing the meaning that an eventuality has an unambiguous future time reference. In contexts in which factor (i) is more important, futurates are most suitable while in contexts in which factor (ii) is more important real future forms are preferred. If we want to express an unambiguous future eventuality but still we want to convey the idea that this eventuality is compatible with a plan, we preferably use PF. In unambiguous future contexts which are not compatible with a plan, we prefer SF. In sections 3 and 4, we present the formal semantics of real future and futurate forms in the framework of a force-theoretic model developed by Copley (2012) and Copley & Harley (2011). In section 5, we put forward our proposal in which we relate the formal semantics of the forms under discussion to their distribution and explain the preferences in the use of PF, SF and futurates in specific contexts. In section 6, we present final conclusions.

## 2 Setting the scene: informal analysis

2.1 Explaining (5): the constrast between futurates vs. PF and SF

As we saw in (5), in a context of "getting married" only futurates but neither PF nor SF are pragmatically plausible. The observed contrast cannot be just due to this particular verb "get married", since the same pattern can be observed in a variety of other contexts, as shown in (8) and (9).

- (8) *Context*: You are looking at the timetable at the train station in order to check your connection to Berlin for tomorrow. You are informing your spouse (on the phone) about what you see:
  - a. ok Pociag do Berlina odjeżdża o 11:49. *futurate* train to Berlin leave.prs.impf.3sg at 11:49
    'The train to Berlin is leaving at 11:49 a.m.'
  - b. #Pociag do Berlina będzie odjeżdżał o 11:49. *PF* train to Berlin be.aux.3sg leave.prt.impf.sg.m at 11:49 lit. 'The train to Berlin will be leaving at 11:49 a.m.'
  - c. #Pociag do Berlina odjedzie o 11:49. SF train to Berlin leave.prs.perf.3sg at 11:49 lit. 'The train to Berlin will leave at 11:49 a.m.'

- (9) *Context*: You want to watch the sunrise tomorrow, so it is important for you to know the exact time of the sunrise. Your spouse is just watching the weather forecast, so you ask him/her:
  - a. ok O której wschodzi jutro słońce? *futurate* at which (hour) rise.prs.impf.3sg tomorrow sun
  - b. #O której będzie wschodziło jutro słońce? *PF* at which be.aux.3sg rise.prt.impf.sg.n tomorrow sun
  - c. ok(?) O której wzejdzie jutro słońce?  $SF^4$  at which rise.prs.perf.3sg tomorrow sun

What do the contexts in (5), (8) and (9) have in common which gives rise to the observed contrasts? The intuitive answer is that the eventualities of getting married, train leaving, sun rising are part of a plan, understood here in a broad way: a concrete plan or arrangement, a timetable or a plan "designed" by the nature (e.g., sunrises and sunsets, tides, etc.). The simple conclusion following from the examples under discussion is that futurates are the best form to be used in the contexts in which a future eventuality is part of a plan. What we still do not know is whether there is any difference between SF and PF in terms of their (in)compatibility with plans. The next sections will throw more light on it.

### 2.2 Explaining (6): the constrast between SF vs. PF and futurates

As was pointed out in section 1, in "offering contexts", repeated below as (10) – only SF forms but neither PF nor futurates are suitable.

- (10) a. ok Jeśli chcesz, naprawimy ci auto. SF if want.prs.2sg repair.prs.perf.1pl you.dat car.acc 'If you want, we will repair your car.'
  - b. #Jeśli chcesz, będziemy ci naprawiać auto. *PF* if want.prs.2sg be.aux.1pl you.dat repair.inf.impf car.acc lit. 'If you want, we will be repairing your car.'

<sup>&#</sup>x27;What time is the sunrise tomorrow?'

While the PF in (9b) is clearly deviant in the context at hand, the status of SF in (9c) is less clear. In the context in (9) it is definitely the futurate form in (9a) which is the most natural one. However, the SF in (9c) also seems to be acceptable, at least for some native speakers of Polish.

c. #Jeśli chcesz, naprawiamy ci auto. *futurate* if want.prs.2sg repair.prs.impf.1pl you.dat car.acc lit. 'If you want, we are repairing your car.'

Why is it so? In her dissertation, Copley (2002) observes that whenever we make an offer, our addressee should have a possibility of either accepting or rejecting it. This implies that we cannot offer future actions which are already settled or planned at the moment of speaking. Given this, it is not surprising at all to see that futurates (cf. (10c)) are not good in the "offering contexts" since we have just concluded that futurates are part of a plan. Okay, but why is PF not good either? The prediction is that PF must also be somehow associated with a plan, in contrast to SF. In section 2.3 we will see other contexts, all pointing out that PF but not SF forms are compatible with a plan. But first we will focus on contexts that are clearly not associated with a plan. Again, our prediction is that only SF but neither PF nor futurates should be good in such contexts.

Apart from "offering contexts", another context illustrating the same point is a "warning context", illustrated in (11).

(11) *Context*: We see a blind man walking towards a precipice. We see that he is just about to fall down. So we want to warn the man to prevent him from falling.

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a. okUwaga, spadniesz! SF
caution fall-down.prs.perf.2sg
'Be careful. (If not) you are going to fall down!'
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b. #Uwaga, będziesz spadał! PF
caution be.aux.2sg fall-down.prt.impf.sg.m
lit. 'Be careful. (If not) you will be falling down!'
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c. #Uwaga, spadasz! futurate
caution fall-down.prs.impf.2sg
lit. 'Be careful. (If not) you are falling down!'
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The intended meaning in (11) is that of a strong warning which implies that the hearer can still do something to prevent the action of falling. In other words, the action of falling in (11) is not pre-arranged or otherwise planned at the moment of speaking. The constrasts in the usage of the forms in (11) confirm the observation we have just made, namely that SF unlike PF and futurates is not compatible with a plan.

The last context which confirms our observation has to do with "negativebias" questions in which the truth of the proposition cannot be presupposed, hence such questions cannot be subject to a plan or an arrangement. Compare the contrasts in (12):

- (12) a. ok Kto mi kiedykolwiek naprawi takie stare SF who me.dat ever repair.prs.perf.3sg such old zardzewiałe auto? rusty car Oczywiście, że nikt. of course that nobody 'Who will ever repair such an old rusty car for me? Nobody, of course.'
  - b. #Kto mi kiedykolwiek będzie naprawiał takie *PF* who me.dat ever be.aux.3sg repair.prt.impf.sg.m such stare zardzewiałe auto?
    old rusty car
    Oczywiście, że nikt.
    of course that nobody
    lit. 'Who will ever be repairing such an old rusty car for me? Nobody, of course.'
  - c. #Kto mi kiedykolwiek naprawia takie stare futurate
    who me.dat ever repair.prs.impf.3sg such old
    zardzewiałe auto?
    rusty car
    Oczywiście, że nikt.
    of course that nobody
    lit. 'Who is ever repairing such an old rusty car for me? Nobody, of course.'

In a negative-bias question the implication is that the future event will never take place. This predicts that only SF should be good in such a context since the future eventuality referred to by a SF form is not presupposed to be true (as it is not part of or is not associated with a plan). This prediction is borne out, as shown in (12a). On the other hand, both the PF form in (12b) and the futurate form in (12c) seem to imply that it is certain that someone will be repairing my car due to the existence of a plan for this future action. But this of course clashes with the implication arising in a negative-bias question that nobody will ever repair such an old rusty car. This explains why the PF and the futurate forms sound awkward when used in a negative-bias context.

To conclude this subsection: we see that SF forms are good in contexts in which there is no pre-arrangement or plan for a future eventuality. In contrast, both PF and futurates can be associated with a plan. Does it mean that there is no difference between PF and futurates? The next section will show that there is an important difference between them.