

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

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. *SF*
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.¹ The fact that in SF we have perfective aspect and present tense will be –

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1 Compare the following present tense and simple future forms of ‘write’:

(a) present tense	(b) simple future
ja <i>piszę</i> _{1.sg}	ja <i>napiszę</i> _{1.sg}
ty <i>piszesz</i> _{2.sg}	ty <i>napiszesz</i> _{2.sg}
on <i>pisze</i> _{3.sg}	on <i>napisze</i> _{3.sg}
my <i>piszemy</i> _{1.pl}	my <i>napiszemy</i> _{1.pl}
wy <i>piszecie</i> _{2.pl}	wy <i>napiszecie</i> _{2.pl}
oni <i>piszą</i> _{3.pl}	oni <i>napiszą</i> _{3.pl}

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” *będzie* complemented with an imperfective lexical verb in form of an *l*-participle or an infinitive (see (2)).²

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 “futures” 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 FCPorto *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 hours.’

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 futures, 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

2 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. ✓Jan żeni się (jutro). *futurate*
 Jan get-married.prs.impf.3sg refl (tomorrow)
 ‘Jan is getting married (tomorrow).’
- b. #Jan będzie się żenił (jutro).³ *PF*
 Jan be.aux.3sg refl married.prt.impf.sg.m (tomorrow)
 ‘#Jan will be getting married (tomorrow).’
- c. #Jan ożeni się (jutro). *SF*
 Jan write.prs.perf.3sg refl (tomorrow)
 ‘#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. ✓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
 ‘#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
 ‘#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)).

3 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. ✓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
 ‘#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
 ‘#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 contrast 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. | ✓Pociąg do Berlina odjeżdża | o 11:49. | <i>futurate</i> |
| | train to Berlin leave.prs.impf.3sg at 11:49 | | |
| | ‘The train to Berlin is leaving at 11:49 a.m.’ | | |
| b. | #Pociąg do Berlina będzie odjeżdżał | o 11:49. | <i>PF</i> |
| | train to Berlin be.aux.3sg leave.prt.impf.sg.m at 11:49 | | |
| | ‘#The train to Berlin will be leaving at 11:49 a.m.’ | | |
| c. | #Pociąg do Berlina odjedzie | o 11:49. | <i>SF</i> |
| | train to Berlin leave.prs.perf.3sg at 11:49 | | |
| | ‘#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. ✓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. ✓(?)O której wzejdzie jutro słońce? *SF*⁴
 at which rise.prs.perf.3sg tomorrow sun
 ‘What time is the sunrise tomorrow?’

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 contrast 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. ✓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
 ‘#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
 ‘#If you want, we are repairing your car.’

4 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.

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.

- a. ✓Uwaga, spadniesz! *SF*
 caution fall-down.prs.perf.2sg
 ‘Be careful. (If not) you are going to fall down!’
- b. #Uwaga, będziesz spadał! *PF*
 caution be.aux.2sg fall-down.prt.impf.sg.m
 ‘#Be careful. (If not) you will be falling down!’
- c. #Uwaga, spadasz! *futurate*
 caution fall-down.prs.impf.2sg
 ‘#Be careful. (If not) you are falling down!’

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 contrasts 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 “negative-bias” 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. ✓Kto mi kiedykolwiek naprawi *SF*
 who me.dat ever repair.prs.perf.3sg
 takie stare zardzewiałe auto?
 such old 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 *PF*
 who me.dat ever be.aux.3sg repair.prt.impf.sg.m
 takie stare zardzewiałe auto?
 such old rusty car
 Oczywiście, że nikt.
 of course that nobody
 ‘#Who will ever be repairing such an old rusty car for me? Nobody, of course.’
- c. #Kto mi kiedykolwiek naprawia *futurate*
 who me.dat ever repair.prs.impf.3sg
 takie stare zardzewiałe auto?
 such old rusty car
 Oczywiście, że nikt.
 of course that nobody
 ‘#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.

2.3 Explaining (7): the contrast between PF vs. SF and futurates

In section 1, we already saw a difference between PF, on the one hand, and SF and futurates, on the other hand. We repeat the relevant context below as (13). The context in (13) is a “being amazed” context. Surely one can only be amazed by something which is already presupposed to be true. Given what we concluded in the previous section, we immediately understand why the SF form in (13b) is not good here. This is because the SF form is not compatible with contexts in which there is an arrangement or a plan for a future eventuality. Still, following our reasoning from the previous section, we should expect that both PF and futurates should be equally good in the context under discussion, but, as illustrated in (13a) vs. (13c), there is a contrast between them.

(13) 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
 be.prs.1sg amazed that most unorganized
 osoba w naszej firmie
 person in our company

a. ✓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
 ‘#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
 ‘#I am amazed that the most unorganized person in our company is organizing such an important conference.’

Why is it so? This cannot be a pure accident because the contexts which we are going to discuss below display the same behavior. Have a look at the context illustrated in (14).

(14) *Context:* Your car has broken down. You take it to a car repair station. They agree to repair your car within a week. You are curious which mechanic will be repairing your car.

- a. ✓Kto będzie mi naprawiał samochód? *PF*
 who be.aux.3sg me.dat repair.prt.impf.sg.m car.acc
 ‘Who will be repairing my car?’
- b. #Kto naprawi mi samochód? *SF*
 who repair.prs.perf.3sg me.dat car.acc
 ‘#Who will repair my car?’
- c. #Kto naprawia mi samochód? *futurate*
 who repair.prs.impf.3sg me.dat car.acc
 ‘#Who is repairing my car?’

In the context in (14) the future action is pre-planned and the speaker only wants to know who will perform it. The SF form is bad, as predicted. But again, somewhat surprisingly the futurate form in (14c) is odd as well. Before we explain this, let us look at the last context illustrating the point we want to make.

(15) *Context:* You are a parachuting instructor. Your student is just about to jump. The jump has been pre-arranged and you only want to signal its beginning.

- a. ✓Uwaga, będziesz spadał! *PF*
 caution be.aux.2sg fall-down.prt.impf.sg.m
 ‘Caution: you are about to begin falling down.’
- b. #Uwaga, spadniesz! *SF*
 caution fall-down.prs.perf.2sg
 ‘#You will fall down.’
- c. #?Uwaga, spadasz!⁵ *futurate*
 caution fall-down.prs.impf.2sg
 ‘#You are falling down.’

In the context under discussion there is an arrangement between the parachuting instructor and the student that the jump will take place. That is why the SF form is deviant in this context, as illustrated in (15b). The PF is preferred in this context since it announces an action which is already settled at the moment of speaking but the announced action is clearly following the moment

5 Example (15c) is not really bad in the context at hand, but still there is a difference between the strongly preferred PF form in (15a) and the futurate form in (15c), as is discussed in the text following this example.

of speaking. What about the futurate form in (15c)? Here the situation is more complicated. In fact, it seems that this form is ambiguous. On the one hand, it can – just like the PF in (15a) – express a pre-arranged future eventuality, but this meaning is not dominant and it would have to be facilitated by a further or a more specific context. In fact, the most dominant reading is the one in which the beginning of the eventuality of falling almost coincides with the moment of speaking, thus giving rise to the impression that this is not a future eventuality but a present tense one.

Interestingly, if we take a closer look at the contexts in (13) and (14), we will notice the same ambiguity of the futurate forms. So, in (13c) the first interpretation we get is that John (the most unorganized person in the company) is already organizing the conference. The future interpretation of this sentence does not seem to be excluded but it is hard to obtain this interpretation. Likewise, in (14c) the future interpretation is not immediately available, it would have to be triggered by an additional context.

2.4 Preliminary conclusions

Summing up the discussion in the preceding sections, the following can be said.

First, it is not the case that the three ways of referring to future eventualities (i.e., SF, PF and futurates) are freely exchangeable. On the contrary, there are clear preferences as to when a given form is used.⁶

6 This does not mean that there are no contexts in which both PF and SF are equally good. Such contexts are, for example, intention or prediction; cf. (i)-(ii).

- (i) a. Obiecuję, że ci jutro pomogę. SF
 promise.prs.1sg that you.dat tomorrow help.prs.perf.1sg
 ‘I promise to help you tomorrow.’ (‘I promise that I will help you tomorrow.’)
- b. Obiecuję, że ci jutro będę PF
 promise.prs.1sg that you.dat tomorrow be.aux.1sg
 pomagał przez cały dzień w sprzątaniu.
 help.prt.impf.sg.m for whole day in cleaning
 ‘I promise to help you the whole day tomorrow with cleaning.’
 (‘I promise that I will be helping you the whole day tomorrow to do cleaning.’)
- (ii) Look at her face.
- a. Basia zaraz się rozpłacze. SF
 Basia immediately refl burst-into-tears.prs.perf.3sg
 ‘Basia is going to/will burst into tears right now.’
- b. Basia zaraz będzie płakała. PF
 Basia immediately be.aux.3sg cry.prt.impf.sg.f
 ‘Basia is going to/will cry right now.’

Second, regarding the use of SF the following can be observed: this form is preferably used whenever the existence of a plan is contextually excluded.

Third, as for the question of when a futurate form is preferred the following condition must be the case: the implication of the existence of a plan for some future eventuality in a given context must be strong enough to cause some kind of a coercion as a result of which the default present tense interpretation of an imperfective present tense verb gets “overwritten” by its future interpretation. This condition is satisfied in the case of, e.g., “get-married” or “sun-rising” contexts. In such contexts the SF will be excluded. However, what still is not completely clear is the question of why PF forms are deviant in a “get-married”-type of context. Recall that the PF form is also compatible with a plan. Our informal answer, which will be formalized in the next sections, is as follows: there is a competition between the PF and the futurate forms in that in cases in which there is a very strong implication of the existence of a plan the present tense imperfective form will be used. Why? As we will see later, this is so because the existence of a plan is sufficient to “overwrite” the default present tense interpretation of such a form, and, more importantly, the plan can be incorporated into the preparatory phase of an event thus giving rise to the interpretation that such a future eventuality is part of a plan.

What about PF forms? In contexts in which there is no strong implication of the existence of a plan, an imperfective present tense form will be either ambiguous between a present tense and a future interpretation, or the present tense interpretation will be the only one available. Given this, if someone wants to express unambiguously a future eventuality, he or she will choose a PF form because this form has an unambiguous future time interpretation. And the PF form, unlike the SF form, is compatible with the existence of a plan.

If we are on the right track in our reasoning, the prediction should be that when we find a context in which a future eventuality is clearly pragmatically unplannable, the future interpretation of an imperfective present tense verb should not be possible. Why? This is so because such a verb – in order to get a future interpretation – needs a plan which would trigger a coercion. Without a plan there will be no coercion, hence a future interpretation of an imperfective present tense verb will be blocked. This prediction is corroborated. As illustrated in (16), while a PF form is plausible and good, an imperfective present tense form is deviant. Why? This is so because one cannot plan feeling hungry.

(16) *Context*: There is a party tomorrow evening at 8 p.m. There will be a lot of food so you had better not eat anything before and come hungry to the party.

- a. ✓Dobrze, będę odczuwał głód o 20:00. *PF*
 good be.aux.1sg feel.prt.impf.sg.m hunger at 8 p.m.
 ‘Okay, I will be feeling hungry at 8 p.m.’
- b. #Dobrze, odczuwam głód o 20:00. *futurate*
 good feel.prs.impf.1sg hunger at 8 p.m.
 ‘#Okay, I am feeling hungry at 8 p.m.’

So far we have sketched an informal account of the distribution of SF, PF and futurate forms. This descriptive background will serve as a basis for our formal analysis in the subsequent sections. We will use a force-theoretic model proposed by Copley (2012) and Copley & Harley (2011) to work out the formal semantics of the discussed real future and futurate forms in Polish. Once we have done this, we will show how the proposed semantics of these forms together with some pragmatic principles constrain their distribution.

3 Framework

3.1 *Why a force-theoretic model?*

In our informal discussion in the previous section we made use of the notion of a plan. We pointed out that futurates are dependent on a notion of a plan and PF forms are compatible with plans. Given that the notion of a plan plays an important role for future forms in Polish, a framework for the proposed analysis should offer a tool for incorporating plans into their formal semantics. Copley (2008; 2012) in her discussion of futurates and futures in English makes use of the notion of a plan. While futures can refer to plannable or non-plannable future eventualities (cf. (17)), futurates presuppose that the eventuality is a plannable one. Compare the contrast between (18a) and (18b) (examples adapted from Copley 2008, 261).⁷

7 An anonymous reviewer wonders whether “plan” and “plannable” are the best terms here. The reviewer suggests that we can plan to defeat Yankees tomorrow but we cannot normally arrange it beforehand. The notion of a plan will be explained and formalized in terms of Copley’s (2012) and Copley & Harley’s (2011) force-theoretic work which will be discussed in sections 3.2 and 3.3. In the context under discussion we use the notion of a plan meaning “scheduled, arranged.” You can arrange/schedule a football match but you cannot arrange/schedule its result beforehand (unless you bribe referees or players).

- (17) a. The Red Sox will play the Yankees tomorrow.
b. The Red Sox will defeat the Yankees tomorrow.
- (18) a. The Red Sox are playing the Yankees tomorrow.
b. #The Red Sox are defeating the Yankees tomorrow.

The futurate in (18a) has a form of a present tense progressive, hence we should expect this sentence to have an ongoing present tense interpretation, i.e., the reference time should overlap with the speech time and the event time should overlap with the reference time ($RT \subseteq ST \ \& \ ET \subseteq RT$). From this it follows that the event time should overlap with the speech time ($ET \subseteq ST$). But this is not what is the intended meaning of (18a). In (18a) the eventuality referred to is a future eventuality (which is additionally strengthened by the use of the temporal adverbial *tomorrow*), that is, the event time should follow the speech time ($ST < ET$).⁸ To solve this problem, Dowty (1979) proposes that what overlaps with ST is not ET but the time of the plan for the eventuality. This is in accordance with a strong intuition that the future eventuality in (18a) is subject to a plannability constraint. Notice that in (18b) it is not possible to obtain a future time meaning because defeating cannot be planned.

Dowty's proposal seems to be very intuitive and plausible, but – as pointed out by Copley (2012) – it is formally problematic. Following Dowty, one could think of a plan as a preparatory event to the event described by the verb phrase. But could one take a plan to be an event of a Davidsonian kind? Copley (2012, 5-7) points out that plans have some similarities to events in that they can exist in time (can be modified by temporal adverbials (19a)) or can even be modified by certain manner adverbials (19b), but they do not support locative or instrumental modification (19c,d).

- (19) a. Yesterday, John was getting married tomorrow.
b. Secretly, John is getting married in public tomorrow.
c. #In the room, John is getting married in church tomorrow.
d. #With a calculator, John is getting married tomorrow.

She concludes that “[plans], therefore, may share some properties with events, but at the very least are not stereotypical events” (Copley 2012, 7). Hence, the question is what the nature of plans is and how they should be formally incorporated into the semantics of futurates. Copley (2012), drawing on the force-theoretic framework developed in Copley & Harley (2011), argues that the notion of *force* is an appropriate concept for understanding how plans

8 In the following we will use the following notation: $A < B$ should be read as “A precedes/is earlier than B.”

function in the semantics. Before we proceed, a few words about the force-theoretic model are in order.

3.2 A Force-theoretic model: a short introduction

Copley & Harley (2011) replace events by means of *forces*, where a force is treated as a transition from an initial situation to a situation that results *ceteris paribus* (*all else being equal*). Situations are understood as spatiotemporal arrangements of individuals along with their properties. Copley & Harley claim that introducing forces makes it possible to create simpler accounts of a number of linguistic phenomena. For example, they point out that in an event-chaining approach it is not possible to account for the fact that the causation relationship between a causing sub-event e_1 and a caused sub-event e_2 might fail to occur. In some languages, for example, in (some) Salish languages it is possible to express morphologically whether a causing sub-event e_1 implies or entails the successful completion of the caused sub-event e_2 in the case of verbal predicates denoting accomplishments (see Bar-el, Davis & Matthewson 2005). Unlike in an event-chaining framework, in a force-theoretic model, forces interact with each other in predictable ways. Forces arise from properties of individuals in situations. The same force applied to the same object may produce a different or no result, depending on what other forces are active in the situation. In other words, if you have an initial situation and a force is applied, and no stronger force intervenes, the final situation results. Forces can thus be envisaged as “the glue that links the causal chains together” (Copley 2012, 11). Copley & Harley (2011) represent the relation between the present and the future by means of causal chains of situations with net forces envisaged in Figure 1.

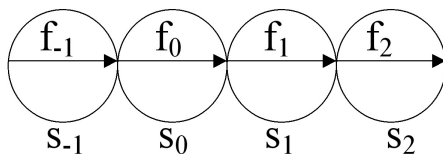


Fig. 1: A causal chain of situations with net forces

3.3 Plannability in a force-theoretic model

In connection with the above discussion about plans it is important to stress that “the concept of force is not the same as the concept of event, in that all events are forces, but not all forces are events” (Copley 2012, 11). Given this, a plan can be treated as a force, more precisely “a kind of social force: an input of ‘social energy’ that causes people to behave in a certain way [...]” (Copley 2012, 17). How to explain the difference between futurates and futures, i.e., the

sensitivity to plans in the case of futurates and the lack of it in the case of futures in English? Copley proposes that futures and futurates differ in terms of the length of the causal chain between the causing situation and the caused situation. In the case of futurates this chain is shorter. The observed sensitivity or non-sensitivity to plans is claimed to follow from the interaction between short causal chains and ‘social forces’ which make one obliged to fulfil a plan. Plans, being intentional forces, can be preparatory for a temporally distant (hence future) eventuality. Spatiotemporal forces do not have this effect (see Copley 2012, 20f.). Compare the contrast between (20a), where an event can be planned and where the plan functions as an intentional force that can cause a temporally distant immediate effect, and (20b), where an event is caused by some spatiotemporal force which can only cause a temporally local immediate effect.

- (20) a. John is getting married tomorrow.
b. #A vase is breaking tomorrow.

Interestingly, as Copley (2012, 21) points out, some physical tendencies have the ability to have a causally immediate but temporally distant effect which makes them similar to plans. Thus, the sun has such a tendency, which makes an utterance like (21a) possible, but there is no natural tendency for rain to fall at 6:30; cf. (21b). (Recall also the examples in (9).)

- (21) a. The sun rises tomorrow at 6:30.
b. #It rains tomorrow at 6:30.

4 Back to futures and futurates in Polish

4.1 Problem

As for the semantics of futurates in Polish, we adopt Copley’s (2012) claim that futurates have a short causal chain linking the causing situation and the caused situation. Their sensitivity to plans follows from the interaction between short causal chains and “social forces” which make one obliged to fulfil a plan. However, this cannot be the end of “the story” for Polish. Recall that in Polish in addition to futurates, there are two future forms, PF and SF, which differ in their distribution. PF but not SF is preferably used for pre-planned/pre-determined contexts. In fact, SF cannot be used in contexts in which there exists a plan for a future eventuality (recall examples in section 2.3). So, both futurates and PF are sensitive to plans. The role of a plan in futurates and PF must therefore be made more precise. Moreover, the difference between futurates and PF cannot be claimed to be due to the length of the causal chain since – as we will see in the

next section – also in the case of PF we have to do with a short causal chain. Thus, the question is: what makes PF and futurates different if both involve a short causal chain and if both are sensitive to plans? Before we answer this question, let us look more closely at differences between PF and SF and ask how they can be formally accounted for.

4.2 The meaning of PF and SF

4.2.1 Force-theoretic semantics of aspect

As pointed out in section 1, SF in Polish is just a perfective present tense form of a lexical verb. PF, in contrast, consists of an auxiliary BE and an imperfective lexical verb in form of either an *l*-participle or an infinitive. Thus, there are two important differences between SF and PF: first, they differ in terms of the aspectual properties of the lexical verb (perfective vs. imperfective), and second, the PF, but not SF, contains an auxiliary which introduces a state BE.⁹ Given this, the first step in the analysis is to show how a force-theoretic model handles, first, the distinction between states and events, and, second, between imperfective vs. perfective. In a force-theoretic model, events involve a force reflecting an input of energy into a situation, while states are simply true of a situation. How does a force-theoretic model formalise grammatical aspect? According to Copley & Harley (2011), aspect maps from predicates of forces to predicates of situations. This corresponds to the common assumption that aspect maps from event predicates to temporal predicates. In a force-theoretic model proposed by Copley & Harley (2011), imperfective aspect takes a predicate of forces (π , the denotation of the lexical verbal predicate) and a topic situation s_0 provided by tense and says that the property π holds of the net force of this topic situation, as shown in (22).

$$(22) \quad [[\text{imperfective}]] = \lambda\pi\lambda s_0.\pi(\text{net}(s_0))$$

In the case of imperfective predicates, a force with a property π is the net force in the topic situation s_0 , and if all else is equal and nothing external interferes, s_1 will result, as shown in the causal chain of situations with net

9 An argument in favor of the assumption that the Polish *będzie* is not completely devoid of a lexical content as it denotes a state BE is the fact that one cannot use two verbs BE to express the meaning corresponding to the English *will be*; cf. (i).

(iii) **będe* *był* /**będe* *być*
 be.aux.1.sg be.prt.sg.m /be.aux.1.sg be.inf
 (intended: ‘I will be’)

forces in Fig. 2. A broken line indicates situations which are not part of the denotation of the imperfective.

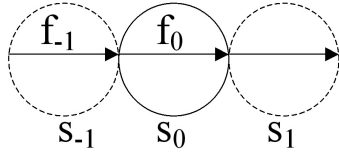


Fig. 2: A causal chain of situations for the imperfective aspect

Perfective aspect, on the other hand, is assumed by Copley & Harley (2011) to take a predicate of forces (π , the denotation of the lexical verbal predicate) and a topic situation s_0 provided by tense and to say that the predicate of forces π is the net force of s_{-1} , as shown in (23).

$$(23) \quad [[\text{perfective}]] = \lambda\pi\lambda s_0.\pi(\text{net}(s_{-1}))$$

In (23), s_{-1} is a situation in the causal chain preceding s_0 . According to Copley & Harley (2011, 29), perfective aspect signals that “the result of some force holds of the topic situation”. That is, Copley & Harley assume that π is true of the force that caused the topic situation s_0 , as envisaged in Fig. 3.¹⁰

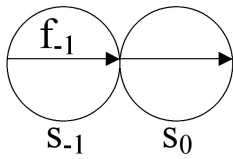


Fig. 3: A causal chain of situations for the perfective aspect

With this background let us see how the future meaning is composed in SF and PF and how the differences pointed out in section 2 in the use of PF and SF can be accounted for.

¹⁰ An anonymous reviewer points out that one cannot associate perfective aspect with a result state. But notice that in the framework we use the term “result situation” is not equivalent with the common notion of a result subevent being part of the event structure. Rather, what is meant by “result situation” is some situation triggered by some previous situation. This “result situation” being true of the topic situation is not necessarily equivalent with a result subevent but it can also refer to what is traditionally understood as an inceptive subevent.

4.2.2 *The composition of the future meaning in SF*

Let us start with SF, which is a combination of present tense and perfective aspect. According to Copley & Harley (2011), perfective aspect signals that the result situation of some force holds as of the topic situation provided by tense. However, what we have in Polish in SF morphologically speaking is not future tense, but rather present tense. To explain the future meaning of a perfective present tense verb in Polish, we use Borik's (2002) analysis of Russian tense and aspect since Russian is similar in this respect to Polish. Borik assumes that present tense by default establishes the following relation: ST overlaps with ET. But actually, the present tense morphology in a language like Polish or Russian should be understood as the absence of past tense morphology (a non-past form). Given this, the only semantic requirement imposed by present tense morphology is that ET should not precede ST. By default ET will overlap with ST unless it clearly follows from the context that ET is not overlapping with ST but following it.

Because we assume a situation-based semantics and not an event-based one, we will take ET to be equivalent with the time of the topic situation s_0 . Perfective aspect in Borik's analysis requires that there cannot be any overlap between ST and RT and, additionally, that ET is included in the RT. Translating this into our terminology, this would mean that there cannot be any overlap between RT and ST and the time of s_0 should be included in RT. So, present tense (non-past) morphology requires that ET should not precede ST and perfective aspect requires that ET (i.e., our s_0) should not overlap with ST. To satisfy these two requirements, the only logically possible interpretation of perfective present tense forms in Polish is a future one where ET (i.e., our s_0) follows ST. Thus it seems that it is perfective aspect in SF that "overwrites" the default present tense interpretation, namely that of overlapping between ST and ET ($ST \subseteq ET$). As a result of this, ET/s_0 is located after ST ($ST < ET/s_0$).

These theoretical considerations are supported by additional evidence pointing out that the combination of present tense and perfective aspect is sufficient to trigger a future time reference. Look at the examples in (24).

- (24) a. Muszę myć tę klatkę schodową za karę.
 must.1sg clean.inf.impf this.acc staircase.acc as punishment
- b. Muszę umyć tę klatkę schodową za karę.
 must.1sg clean.inf.perf this.acc staircase.acc as punishment

'I have to clean this staircase as a punishment.'

The only formal difference between (24a) and (24b) is the aspectual form of an infinitival complement of a present tense modal verb. This difference results in a semantic contrast. (24a) means by default (when no adverbial modifiers are used) that the speaker is cleaning a staircase at the moment of speaking because it is his or her obligation. In contrast, (24b) means that the speaker will clean a staircase after the moment of speaking because he or she has such an obligation at the moment of speaking. This points to a conclusion that perfective aspect is sufficient to trigger a future time interpretation of the eventuality in the complement of the modal verb in (24b) (see also Condoravdi 2001).

Having clarified this, let us return to the denotation of perfective aspect in Copley & Harley's (2011) force-theoretic framework. Perfective aspect takes a predicate of forces π (the denotation of the lexical verbal predicate) and a topic situation s_0 , which in this case is provided by the combination of present tense (non-past tense) and perfective aspect, and says that the predicate of forces π is the net force of s_{-1} , where s_{-1} is a situation in the causal chain preceding s_0 . This results in a causal chain of situations presented in Fig. 4.

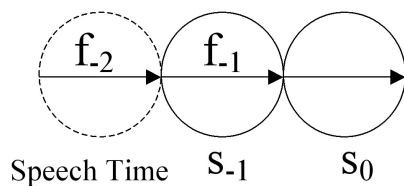


Fig. 4: A causal chain of situations for SF in Polish

In Fig. 4 the topic situation s_0 : (i) is provided by the combination of present tense (non-past tense) and perfective aspect; (ii) is the situation the speaker is talking about; (iii) is the result situation of s_{-1} .

4.2.3 The composition of the future meaning in PF

Having clarified the composition of future meaning in Polish SF, let us turn now to the PF form. Recall that PF is a combination of *będzie* + an imperfective complement. There is morphological and diachronic evidence (see Błaszczak, Jabłońska, Klimek-Jankowska & Migdalski 2012) that *będzie* is a perfective present tense form expressing the state BE (for diachronic evidence, see van Schooneveld 1951). However, despite the fact that *będzie* is morphologically marked for perfective aspect, in a PF form when it is complemented by an imperfective lexical verb it does not display its usual telecizing semantics as PF comprising *będzie* + an imperfective complement denotes a durative eventuality. Why? This is so because *będzie* is not completely devoid of a lexical content, as it denotes a state BE, which we take to be a Kimian state (see Maienborn 2001

for discussion).¹¹ Kimian states do not introduce a typical eventuality argument but rather they introduce a referential argument for a temporally bound property exemplification. Given this, *będzie* does not have an event argument, hence the perfective aspect cannot operate on it. The combination of present tense and perfective aspect in *będzie* – just in the case of SF – temporally locates the topic situation (s_0) after the speech situation, i.e., $ST < s_0$. The state BE introduced by *będzie* predicates over the topic situation (s_0). The lexical complement of *będzie* is marked as imperfective. Imperfective aspect says that the denotation of the lexical verbal predicate, i.e., π , holds of the net force of the topic situation (s_0). This means that the combination of a state BE introduced by *będzie* and the denotation of the imperfective lexical verbal predicate (π) hold of the topic situation (s_0). This results in the causal chain of situations presented in Fig. 5.

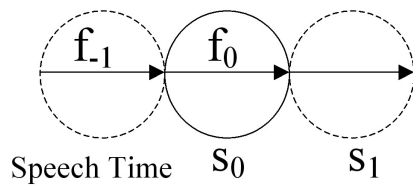


Fig. 5: A causal chain of situations for PF in Polish

In Fig. 5 the state introduced by *będzie*, which itself is complemented by a lexical verb, holds of the topic situation (s_0). The topic situation s_0 : (i) is provided by the combination of present tense (non-past tense) and perfective aspect; (ii) is the situation the speaker is talking about; (iii) is the situation of which the state BE and the property π denoted by the lexical verbal predicate hold. Given this, in PF in Polish, the situation whose net force has the property π is s_0 (the topic situation), and not s_{-1} .

4.2.4 The length of causal chains in PF and SF

If we compare Fig. 4 and Fig. 5, we will notice that SF and PF differ in terms of the length of the causal chain between the moment of speaking and the topic situation s_0 . In SF there is s_{-1} between the moment of speaking and s_0 which makes the causal chain between them longer. A longer chain creates more opportunities for other forces to creep in. In contrast, the causal chain of

¹¹ Dölling (2005) is skeptical about Maienborn's ontological distinction between Davidsonian states and Kimian states. He observes that the former can entail the latter and hence they should be subsumed under the same ontological category. We think, just as Dölling himself admits, that this observation does not have to be treated as a conclusive piece of counter-evidence to Maienborn's proposal.

situations in the case of PF is shorter as there is no s_{-1} between the moment of speaking and s_0 . This chain (or more precisely, the distance between ST and s_0) is thus not long enough to create opportunities for other forces to creep in. As we will see in the following section, this fact can be used to explain why PF and not SF forms are preferably used for the expression of pre-planned future eventualities. Whenever the speaker wants to express a pre-planned future eventuality, he or she will choose a form which more faithfully expresses his or her desire for this future eventuality to be realized. As there is no intermediate situation (s_{-1}) in the denotation of PF in Polish, the topic situation will immediately follow the speech situation and thus constitute a natural continuation of a plan (which is made at the moment of speech or before it).

Recall that plans also play a role in the meaning of futurates. Thus, the next step in the analysis is to work out the force-theoretic semantics of futurates.

4.3 The composition of the future meaning in futurates

As was pointed out in section 1, the grammatical form of futurates is present tense imperfective. The situation denoted by present tense imperfective verbs (marked as s_0 = topic situation) is by default interpreted as overlapping with the speech time (ST). As we pointed out in sections 2.1 and 2.4, in a context in which there is a strong implication of the existence of a plan (e.g., “get-married”, “train-leaving”, “sun-rising” types of contexts), it is the plan itself that is overlapping with ST (Dowty 1979). Recall also that according to Copley (2012), plans, being intentional forces, can be preparatory for a temporally distant (hence future) eventuality. This can be understood in terms of coercion. As indicated in Fig. 6, the existence of a plan, which now overlaps with ST, causes a forward-shifting of the topic situation, s_0 , from around ST ($ST \subseteq s_0$) to after ST ($ST < s_0$). This results in a future meaning, but importantly, future time reference is not expressed by the present tense imperfective form itself but it is the result of the coercion operation determined by the context, as illustrated in Fig. 6.

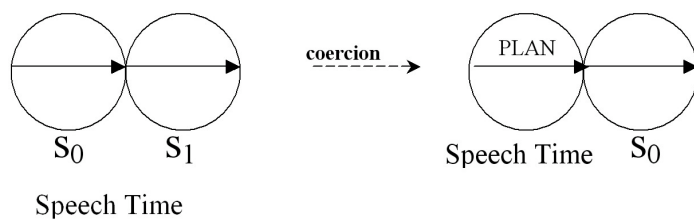


Fig. 6 Futurates

4.4 The role of a plan in futures and futurates in Polish

In the previous section we saw that in the case of futurates, the existence of a plan (either an intentional plan (“social force”) or a plan following from a law of nature) is a necessary condition for obtaining future time reference for the topic situation (i.e., the situation we are talking about). Given this, obtaining a future time reference in the case of futurates is costly. Why? It is so because the future meaning is not triggered by the form itself but it is a result of a coercion operation. Moreover, this coercion operation itself is conditioned by the availability of the contextually implied existence of a plan.

Unlike in the case of futurates, in PF (cf. Fig. 7) and SF (cf. Fig. 8), the existence of a plan is not a necessary condition for obtaining future time reference for the topic situation. Recall that future time reference is part of the semantics of PF and SF. It is due to the combination of perfective aspect and present tense. As explained in section 4.2.2, according to Borik (2002), perfective aspect requires that there cannot be any overlap between ST and RT and, additionally, that ET is included in RT, which was translated in terms of a situation-based semantics as that there cannot be any overlap between RT and ST and the time of s_0 should be included in RT. As a consequence, perfective aspect was taken to “overwrite” the default present tense interpretation, that of overlapping between ST and ET ($ST \subseteq ET$) and to locate ET/ s_0 after ST ($ST < ET/s_0$), which results in a future meaning.

There is an important difference between PF and SF, though. As indicated in Fig. 7 and Fig. 8, both of these forms are in principle compatible with the existence of a plan. It follows from the force-theoretic semantics of PF (recall the discussion in sections 4.2.3 and 4.2.4) that the topic situation, even if it cannot overlap with ST (because of the perfective aspect on BE), can be located right after ST and thus be understood as a natural continuation of a plan.

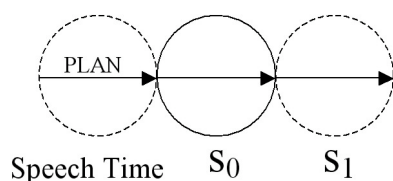


Fig. 7 PF

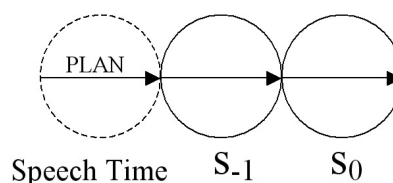


Fig. 8 SF

Additional support for the claim that in the case of PF the topic situation can be located right after ST comes from the observation that PF can be used in a combination with ‘still’; cf. (25a). The situation denoted by PF in (25a) can serve as a natural (“seemingly temporally uninterrupted”) continuation of a situation which is going on at the point of utterance. Unlike in PF, in SF the

topic situation cannot be located right after ST and thus it cannot be understood as a natural continuation of a plan, given that in the force-theoretic semantics of SF there is a situation s_{-1} immediately preceding s_0 , the topic situation. The existence of this intermediate situation s_{-1} in the semantics of SF is supported by the fact that unlike PF, SF cannot be used in a combination with ‘still’; cf. (25b). In other words, the situation denoted by SF in (25b) cannot serve as a natural (“seemingly temporally uninterrupted”) continuation of a situation which is going on at the point of utterance.

- (25) Jan czyta gazetę
 Jan read.prs.impf.3sg newspaper.acc
- a. ✓i nadal będzie ją czytał. *PF*
 and still be.aux.3sg it.acc read.prt.impf.sg.m
 ‘Jan is reading a newspaper and he will still be reading it.’
- b. *i nadal ją przeczyta. *SF*
 and still it.acc read.prs.perf.3sg
 ‘*Jan is reading a newspaper and he will still have read it.’

Now with this formal background we are ready to correlate the force-theoretic formal semantics of PF, SF and futurates with the observed contrasts in their distribution.

5 Proposal

5.1 Starting point

The starting point for our analysis is the fact that the differences in the distribution of futurates, PF and SF in Polish are not a matter of a sharp contrast in grammaticality but rather a matter of preference. So what we need is an account at the interface of semantics and pragmatics which would allow us to explain the preferences in the use of the forms under discussion.

5.2 Puzzles to be solved

Puzzle 1: Why is it so that if a future eventuality is understood to be part of a plan and the given context strongly implies the existence of a plan, futurates are preferred over PF and SF?

Puzzle 2: Why is it so that if the speaker wants to convey the meaning that a future eventuality is compatible with some plan, but the existence of a plan as

such is not implied by a context (not immediately recoverable from the context), PF is preferred over futurates and SF?

Puzzle 3: Why is it so that in contexts in which the existence of a plan is contextually excluded, SF is preferred over futurates and PF?

5.3 Solutions to the puzzles

Answer 1: We emphasized earlier that obtaining a future time reference in the case of futurates is costly because it can only be achieved by means of a coercion operation which is conditioned by a contextually implied existence of a plan. If a context is strong enough to guarantee this coercion, as a consequence, it will be the plan itself that will be overlapping with the moment of speaking, thus “pushing” the topic situation forward. As indicated in Fig. 6, after the coercion has taken place, the plan becomes part of the semantics of the present tense imperfective form. Given this, it is this form that will be preferably used to express future eventualities that are understood as being part of plans.

Neither PF nor SF can be used in a situation in which the speaker wants to express the meaning that the future eventuality is necessarily part of some plan (recall that this is also true for plans designed by the nature). Given that plans are made before or at the moment of speaking (but not after it), and given that in SF and PF perfective aspect locates s_0 after the ST, a plan understood as a preparatory phase of a future situation cannot be incorporated into the semantics of these forms. Hence the use of PF or SF in the context under discussion would lead to a violation of the Gricean Maxim of Quantity. These forms do not convey the crucial piece of information that at the moment of speaking there exists a plan and that this plan is in the preparatory phase of a future situation.

Answer 2: In the case in which the context does not necessarily (or strongly) imply the existence of a plan (even if a plan as such is possible), futurates cannot be used since their use would not guarantee the most optimal/economical way of expressing a future time reference. Their future meaning is the result of a pragmatic (context-dependent) operation of coercion, which is costly. The use of PF or SF is more economical since they assert future time reference (without any need of coercion). Okay, but why is PF and not SF preferred in this context? In a context in which the future situation can be understood as a natural continuation of a plan, it is better to use PF than SF since in the case of PF the causal chain between the moment of speaking at which the plan is true and the future topic situation is shorter. Recall that in the case of PF the topic situation can be located right after the utterance situation (but importantly not at the

moment of speaking) and this makes this form more suitable to express pre-planned/pre-determined/pre-arranged situations.

Answer 3: In contexts in which we want to have an option of changing or preventing a future situation, the existence of a plan is pragmatically excluded. For example, in an offering context there should be an option of rejecting the offer and hence not fulfilling the future eventuality, or likewise, in a warning context there should be an option of preventing the future outcome (recall examples in section 2.2). Why are SF forms preferred over PF and futurate forms in such contexts? This is so because in the case of SF the causal chain between the moment of speaking and the future topic situation is longer, hence allowing for possible interventions. Both in the case of futurates and PF there is no intermediate situation between the moment of speaking and the topic situation allowing for such interventions. Recall that in fact the future time reference in the case of imperfective present tense forms is the result of a coercion by means of which the plan (existing at the moment of speaking) becomes an integral part of the semantics of these forms. Also in the case of PF, due to the absence of an intermediate situation between the moment of speaking and the future topic situation, it is pragmatically plausible to associate such future situations with plans existing at the moment of speaking. Given this, PF and futurates will be pragmatically deviant in contexts in which there should not be any plan at the moment of speaking.

6 Conclusion

As we saw, the use of a force-theoretic model in combination with basic pragmatic principles allows us to explain the preferences in the choice of different forms referring to future eventualities. The distribution of futurates and PF and SF in Polish is not determined by strict semantic constraints, but still it is not completely free. We can observe a systematicity in the use of these forms and this can be explained if one considers the interaction between the semantics of these forms and the pragmatic constraints, i.e., the question of which of the discussed forms satisfies the requirements of a given context in the best way.

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