How real is future? The case of futurates in Polish

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The issue

- Polish has two ‘real’ future forms:
  - a simple future form, and
  - a periphrastic future form.
Two future forms in Polish

- **simple future** (=SF):
  
  Ajax *zagra* z FC Porto.
  Ajax *play.prs.perf.3sg* with FC Porto
  ‘Ajax will play with FC Porto.’

- **periphrastic future** (=PF)
  
  Ajax *będzie grał* z FC Porto.
  Ajax *be.aux.3sg play.prt.impf.sg.m* with FC Porto
  ‘Ajax will be playing with FC Porto.’
Two future forms in Polish

- **simple future (SF)**
  - Ajax zagra z FC Porto.
  - Ajax play.
  - prs.perf.3sg with FC Porto
  - ‘Ajax will play with FC Porto.’

  a lexical verb = present tense + perfective aspect
  no auxiliary

- **periphrastic future (PF)**
  - Ajax będzie grał z FC Porto.
  - Ajax be.aux.3sg play.prt.impf.sg.m with FC Porto
  - ‘Ajax will be playing with FC Porto.’

  a combination of the so-called “future auxiliary” BE
  and an imperfective lexical verb
Futurates in Polish

- **Futurates**

  Ajax *gra* z FC Porto.

  Ajax *play.prs.impf.3sg* with FC Porto

  ‘Ajax is playing with FC Porto (at the moment of speaking or in the future).’
imperfective forms of present tense verbs

Ajax gra z FC Porto.
Ajax play.prs.impf.3sg with FC Porto‘
‘Ajax is playing with FC Porto (at the moment of speaking or in the future).’
Question 1

Is the distribution of PF, SF and futurares predictable or constrained in any way or are these three forms freely exchangable?

Observation:
There are contexts in which one of these three forms is strongly preferred whereas the others are deviant and not suitable.
Goal of the talk

To show novel contrasts in the distribution of PF, SF and futurares and to show how the semantics of these forms constrains their distribution.
Common knowledge

- Obvious aspectual differences between
  - **SF** → bounded
    - Napiszę list w godzinę /* (przez) godzinę.
      - ‘I’ll write a letter in an hour.’
  - **PF** → unbounded
    - Będę pisać list (przez) godzinę/ *w godzinę.
      - ‘I’ll be writing a letter for an hour.’
But...

- The semantic difference between the two real future forms (PF and SF) – as we will see below – is definitely more than just aspectual.
Futurates  thumbs up  PF      F  SF      thumbs down

Scenario 1

- A: Are you going to John’s wedding tomorrow?
- B: John’s wedding?
- A: Yes, John’s wedding! Haven’t you heard that ...
a. Jan żeni się (jutro). **FUTURATE**
   ‘Jan is getting married (tomorrow).’

b. #Jan będzie się żenił (jutro). **PF**
   ‘#Jan will be getting married (tomorrow).’

c. #Jan ożeni się (jutro). **SF**
   ‘#Jan will get married (tomorrow).’
Scenario 2

- 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. **FUTURATE**
    ‘The train to Berlin is leaving at 11:49 a.m.’

b. #Pociąg do Berlina będzie odjeżdżał o 11:49. **PF**
    ‘#The train to Berlin will be leaving at 11:49 a.m.’

c. #Pociąg do Berlina odjedzie o 11:49. **SF**
    ‘#The train to Berlin will leave at 11:49 a.m.’
What do these two contexts have in common which gives rise to the observed contrasts?

The intuitive answer is that the eventualities of getting married and train leaving are part of a plan.

Interim conclusion:

Futurates are the best forms to be used in the contexts in which a future eventuality is part of a PLAN.
Offering contexts
(Copley 2002)
a. Jeśli chcesz, naprawimy ci auto. **SF**
   ‘If you want, we will repair your car.’

b. #Jeśli chcesz, będziemy ci naprawiać auto. **PF**
   ‘#If you want, we will be repairing your car.’

c. #Jeśli chcesz, naprawiamy ci auto. **futurate**
   ‘#If you want, we are repairing your car.’
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.
Warning context

Scenario 3:

- 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**
   ‘Be careful. (If not) you are going to fall down!’

b. #Uwaga, będziesz spadał! **PF**
   ‘#Be careful. (If not) you will be falling down!’

c. #Uwaga, spadasz! **futurate**
   ‘#Be careful. (If not) you are falling down!’
Warnings imply that the hearer can still do something to prevent the future action. Hence this future action cannot be pre-arranged at the moment of speaking.
“negative bias” questions
in which the truth of the proposition cannot be presupposed to be true
a. Kto ci kiedykolwiek naprawi takiego grata? **SF**  
   ‘Who will ever repair such a crock?’

b. #Kto ci będzie kiedykolwiek naprawiał takiego grata? **PF**  
   ‘#Who will be ever repairing such a crock?’

c. #Kto ci kiedykolwiek naprawia takiego grata? **futurate**  
   ‘#Who is ever repairing such a crock?’
In a negative-bias question the implication is that the future event will never take place (it is not presupposed to be true and it cannot be part of a plan)
Conclusion: SF forms are preferred over PF and futurates in contexts in which there is no pre-arrangement or plan for a future eventuality.
“Being amazed” contexts
Scenario 4:

A: Have you heard the latest news? The boss chose John to organize the biggest conference we have ever had.

B: I am amazed that the most unorganized person in the company:
a. ... będzie organizować tak ważną konferencję. **PF**  
... will be organizing such an important conference.

b. #zorganizuje tak ważną konferencję. **SF**  
... will organize such an important conference.

c. #organizuje tak ważną konferencję. **futurate**  
... is organizing such an important conference.
-One can only be amazed by something which is presupposed to be true.

-PF is preferably used in contexts in which a future eventuality is pre-arranged or pre-planned.
Scenario 5: 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? \textit{PF}
   ‘Who will be repairing my car?’

b. #Kto naprawi mi samochód? \textit{SF}
   ‘#Who will repair my car?’

c. #Kto naprawia mi samochód? \textit{futurate}
   ‘#Who is repairing my car?’
In this scenario the future action is pre-planned and the speaker only wants to know who will perform it.
Summary

- **SF** preferred in contexts in which the existence of a plan is contextually excluded as it should be possible to change or prevent a future eventuality.

- Both **PF** and **futurates** are compatible with a plan.
Question

- If both **PF** and **futurates** are compatible with a plan how to account for the contrasts in their distribution?

- **Futurates** but not **PF**: ‘getting married’ and ‘train leaving’ contexts.

- **PF** but not **futurates**: ‘being amazed’ and questions in which the future eventuality is pre-arranged.
Futurates

For present tense imperfective statements to be interpreted as futurates the existence of a plan for a future eventuality must be recoverable from the context.

Then, as a result of coercion, the plan gets incorporated into the preparatory phase of an event and the event is automatically understood as following the plan.
Futurates

a. Jan żeni się (jutro). **FUTURATE**
   ‘Jan is getting married (tomorrow).’

b. #Jan będzie się żenił (jutro). **PF**
   ‘#Jan will be getting married (tomorrow).’

**COERCION (meaning shift)**

Speech Time → Speech Time

PRESENT INTERPRETATION → FUTURE INTERPRETATION

PLAN
a. Kto będzie mi naprawiał samochód? **PF**
   ‘Who will be repairing my car?’

b. #Kto naprawia mi samochód? **futurate**
   ‘#Who is repairing my car?’
Formal account

- Using a force-theoretic model of Copley & Harley (2011) and Copley (2012) we will:
  - work out the semantics of PF, SF and futurates
  - show how the proposed semantics of these forms constrains their distribution.

We use this framework as it offers a tool for incorporating a plan into the formal semantics of the discussed forms.
A few words about force dynamics

- What is a force?
- A force can be understood as an input of energy which can change the initial situation into a different one,
  - as long as no stronger force keeps it from doing so.
A few words about force dynamics

- In formal terms, a force is a function from a situation to a situation.
  
  - Situations are understood as spatio-temporal arrangements of individuals along with their properties.
A few words about force dynamics

- Forces form causal chains of situations.
A few words about force dynamics

The traditional distinction between states and events is understood in a force-dynamic model as follows:

- Eventive PPs are predicates of forces
- Stative predicates are predicates of situations
A few words about force dynamics

- Aspect maps from predicates of forces to predicates of situations

- This assumption is analogous to the common assumption that aspect maps from event predicates to temporal predicates.
A few words about force dynamics

- **Imperfective aspect** takes a predicate of forces $\pi$ (the denotation of the $\nu P$) and a topic situation $s_0$ provided by tense and says that the property $\pi$ holds of the net force of this topic situation.

- Broken line indicates situations which are not part of the denotation of the imperfective.
A few words about force dynamics

- **Perfective aspect** takes a predicate of forces \( \pi \) (the denotation of the \( \nu P \)) and a topic situation \( s_0 \) provided by tense and says that the property \( \pi \) holds of the net force of the situation \( s_{-1} \), where \( s_{-1} \) is a situation in a causal chain which precedes the topic situation.

![Diagram showing the net force \( f_{-1} \) and the situations \( S_{-1} \) and \( S_0 \)]
SF - the composition of meaning

**SIMPLE FUTURE**

**PRESENT (NON-PAST)** =
The topic situation $s_0$ should not precede ST

**Perfective aspect** = no overlap between ST and the topic situation $s_0$.
(灵感来源于Borik 2002)

$s_0$ follows ST = future time reference
SF - the composition of meaning

In SF perfective aspect takes a property $\pi$ (the denotation of vP) and a topic situation $s_0$ and says that $\pi$ is predicated over the net force of $s_{-1}$ (a situation in the causal chain preceding $s_0$).

A causal chain of situations for SF in Polish
**PF - the composition of meaning**

**PERIPHRASTIC FUTURE**

**BĘDZIE**

- *będzie* is a perfective non-past tense form of BE (van Schooneveld 1951) → topic situation (s0) after ST

- The state BE introduced by *będzie* is true of the topic situation (s0).

- BE is a Kimian state (no event argument; see Maienborn 2001) → perfective aspect cannot display its telecizing semantics.

**IMPERFECTIVE VERBAL COMPLEMENT**

Imperfective aspect says that the denotation of the lexical verbal predicate Π, holds of the net force of the topic situation (s0).
**PF - the composition of meaning**

- The combination of a state BE introduced by *będzie* and the denotation of the imperfective lexical verbal predicate (Π) hold of the topic situation (s₀).

![Causal chain of situations](image)

- A causal chain of situations for **PF** in Polish
A causal chain of situations for **SF** in Polish

Jan czyta gazetę *i nadal ją przeczyta. SF*

‘*Jan is reading a newspaper and he will still have read it.’

A causal chain of situations for **PF** in Polish

Jan czyta gazetę i nadal będzie ją czytał. **PF**

‘Jan is reading a newspaper and he will still be reading it.’
**PF vs. SF**

- 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 but not in PF there is $s_{-1}$ between the moment of speaking and $s_0$.

- A longer chain creates more opportunities for other forces to creep in.
FUTURATES - the composition of meaning

NON-PAST
The topic situation $s_0$ should not precede ST

IMPERFECTIVE ASPECT
Imperfective aspect says that the denotation of the lexical verbal predicate $\Pi$, holds of the net force of the topic situation ($s_0$).
In the case of present tense imperfective verbs the topic situation is by default interpreted as overlapping with the speech time (ST).

However in a context in which there is a strong implication of the existence of a plan (e.g., “get married”, “train-leaving”, “sun-rising”), it is the plan itself that is overlapping with ST (Dowty 1979).
Futurates - the composition of meaning

- In Copley (2012) plans are intentional forces causing some other situation. If it is the plan, which overlaps with ST it gets incorporated into the preparatory phase of the planned situation which forward-shifts this situation from around ST to after ST.

- This results in a future meaning of futurates.
Futurates - the composition of meaning

In futurates, future time reference is not expressed by the present tense imperfective form itself but it is the result of the coercion operation determined by context.
Proposal

- **Puzzle 1**: Why is it so that in contexts in which the existence of a plan is contextually excluded (e.g. offering contexts and warning contexts), **SF** is preferred over **futurates** and **PF**?
**Proposal**

- **Answer 1:** In contexts in which we want to have an option of changing a future situation, the existence of a plan is pragmatically excluded.

  For example, in a warning context there should be an option of preventing the future outcome. Why are SF forms preferred over PF and futurates 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.
Puzzle 2: 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*?
Answer 2: If the existence of a plan is recoverable from context and it guarantees a coercion operation which in turn guarantees a future time reference of a present tense imperfective form, futurates are preferred over PF and SF forms.
Puzzle 3: 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?
Proposal

**Answer 3:** When the existence of a plan is not recoverable from context futurates cannot be used since their use would not guarantee the coercion operation which in turn would not guarantee the future time reference. The use of **PF** or **SF** is more economical since they assert future time reference (without any need of coercion).
Proposal

- 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.
THANK YOU 😊
Methodology

- A scenario-based online questionnaire
  - for Polish
    - www.ifa.uni.wroc.pl/questionnairePL
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