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SFB 833-C2

Aspectual competition and Vendler's verb classes in iterative contexts in Polish

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5.12.2019

(1) *Kamila dwa razy zdobyła złoto, dwa razy srebro.* (NKJP)
Kamila won the gold [medal] two times, two times the silver [medal].

(2) *Radio wiele razy podało już wiadomość o śmierci zakonnika...* (NKJP)
The radio brought the news about the death of the monk many times.

(3) *[On] zauważył pożar i dwa razy dzwonił do straży.* (NKJP)
[He] noticed the fire and called the fire department two times.

(4) *Prokuratorzy wiele razy wypowiadali się publicznie w mojej sprawie.* (NKJP)
Prosecutors spoke about my case publicly many times.

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(2) *Radio wiele razy* ***podało-PF*** *już wiadomość o śmierci zakonnika...* (NKJP)
Radio many times reported about the death of the monk.

(3) *[On] zauważył pożar i dwa razy* ***dzwonił-IPF*** *do straży.* (NKJP)
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→ **aspectual competition**

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Aspectual competition

- Bondarko 1971:

«С частными видовыми значениями связано явление, получившее название «конкуренция видов». Речь идёт о взаимозаменяемости видов, не сопровождаемой изменением основного смысла высказывания (изменяются лишь оттенки выражения этого смысла. Исключение из правила, что замена одного вида другим невозможна (обычно это приводит к бессмыслице, искаженному высказыванию, либо изменению смысла высказывания)»

- Zaliznjak / Šmelëv 1997:

«Частно-видовые значения деляся на центральные и периферические. В центральных значениях совершенный и несовершенный виды максимально противоположны друг другу, в периферийных значениях возможна конкуренция видов»

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Aspectual competition

- Bondarko 1971:

The particular meanings of verbal aspect can lead to such a phenomenon as the *aspectual competition.* The verbal aspect can be replaced with its competitor without a complete loss of the meaning of the statement (the change is only in some nuances of the meaning.

- Zaliznjak / Šmelëv 1997:

The particular meanings of verbal aspect can be divided into central and peripheral ones. With the central meanings verbal aspects reach the maximum opposition to each other whereas the peripheral meanings can lead to aspectual competition.

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Aspectual competition

- concrete-factual meaning of PF (*конкретно-фактическое з.*) vs. abstract-factual meaning of IPF (*обобщенно-фактичское з.*)

- graphic-exemplary meaning of PF (наглядно-примерное з.) vs. unbounded-iterative meaning of IPF (*неограниченно-кратное з.*)

- potential meaning of PF (*потенциальное з.*) vs. potential-qualitative meaning of IPF (*потенциально-качественное з.*)

- summaric meaning of PF (*суммарное з.*) vs. bounded-iterative meaning of IPF (*ограниченно-кратное з.*)

(Bondarko 1971)

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Aspectual competition

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- potential meaning of PF (*потенциальное з.*) vs. potential-qualitative meaning of IPF (*потенциально-качественное з.*)
- summaric meaning of PF (*суммарное з.*) vs. bounded-iterative meaning of IPF (*ограниченно-кратное з.*)

(Bondarko 1971)

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Aspectual competition

- **Summaric meaning of PF**: quantifiers of the type *dvaždy*, *neskol'ko raz*, *pięć razy*, *wiele razy* etc.
  - Single facts or actions are summed up to one complex semantical system
- **Bounded-iterative meaning of IPF**: same quantifiers as for summaric meaning, but
  - Single facts or actions are considered as separated

- Bondarko 1971, Galton 1976: the interpretation of the event/sequence of events ist more important for the choice of the aspect than the number of iterations in the real world

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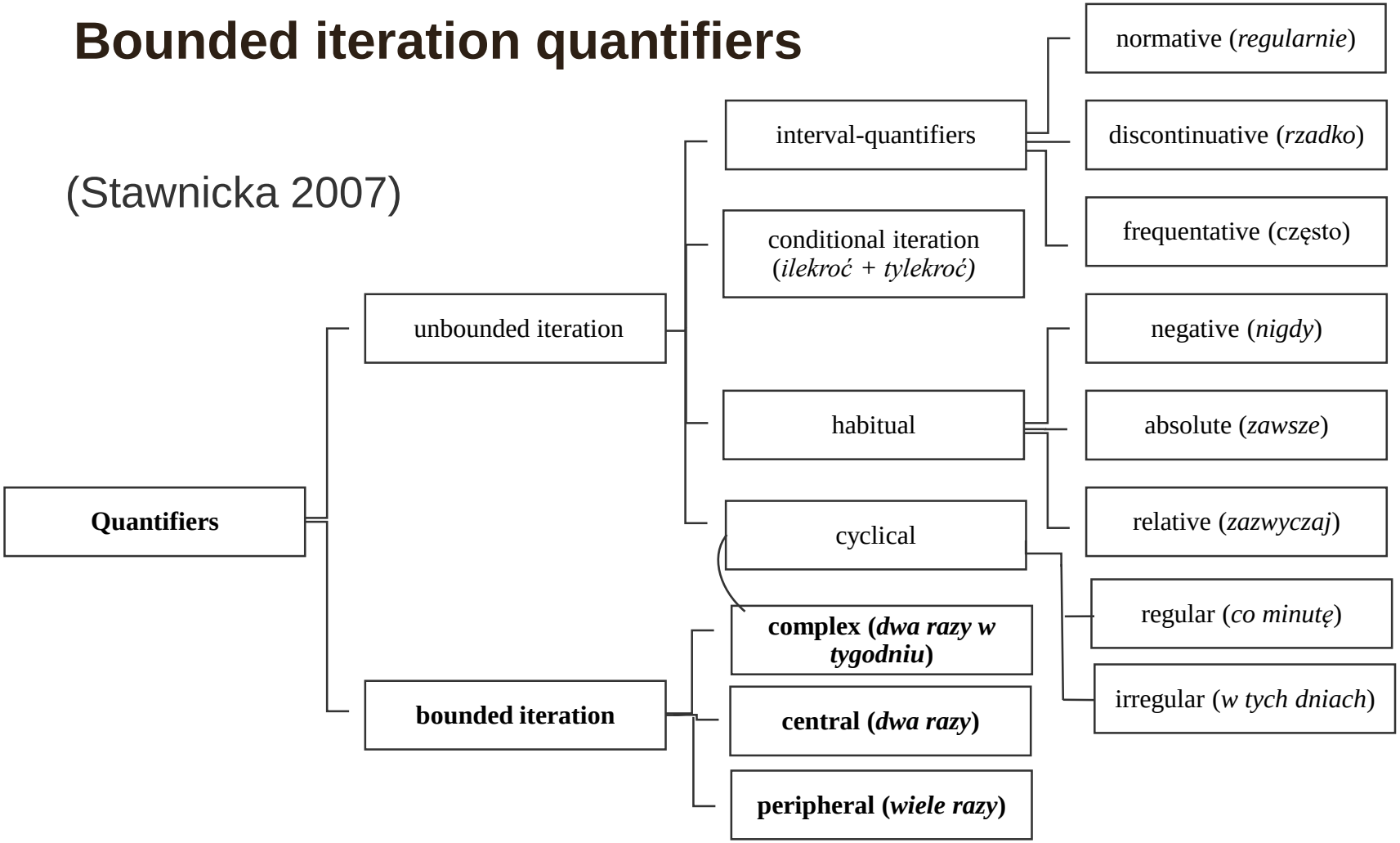
Bounded iteration quantifiers

(Stawnicka 2007)



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Bounded iteration quantifiers

Central group	kilka razy, dwa razy, dwukrotnie, dwakroć, trzy razy, trzykrotnie, trzykroć, cztery razy, czterokrotnie, pieć razy..., parę razy, raz czy dwa...
Peripheral group	wiele razy, wielokrotnie, nie raz, tyle razy, ileż to razy, setki razy, sto razy, stokrotnie, tysiąc razy, tysiąckrotnie, miliony razy...
Complex group	trzy razy dziennie, trzy razy w tygodniu, trzy razy w roku, po dwa razy dziennie, po trzy razy w tygodniu, po dwa razy w roku...

Examples for bounded iterative quantifiers (Wartini 2009)

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Bounded iteration quantifiers

Grzegorczykowa 1973: quantifiers like *pięć razy* can be used equally with PF *or* IPF

Lenga 1976: verbal aspect with bounded iteration quantifiers
indefinite number of iterations → IPF
definite number of iterations → PF

Holvoet 1989: bounded iteration contexts → *mostly* PF

Barentsen 1992 (etc.): both aspects, differentiation between retrospective and narrative contexts

Stawnicka 2007: bounded iteration contexts → both aspects, in narrative contexts PF>IPF, retrospective contexts IPF>PF
definite quantifiers + PF, indefinite quantifiers + IPF

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Gattnar (2013)

- Aspectual competition in iterative contexts in Russian
- Contexts with definite quantifiers *dva raza, tri raza*, *pjat' raz, desjat' raz;* indefinite quantifier *neskol'ko raz*
- Position of the quantifier (before or after the verb)
- A corpus-based study shows that PF and IPF are almost equally represented in bounded iterative contexts
- For definite quantifiers: 55% IPF / 45% PF
- For the indefinite quantifier *neskol'ko raz* 60% IPF / 40% PF
- Very interesting finding: for the quantifiers *dva raza* and *tri raza* there is a relation between aspect and the position of the quantifier
- An experiment shows a significant relation between position of the quantifier, its type and the choice of aspect in Russian

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Gattnar / Kravchenko t.b.p.

- Similar corpus study and an experiment for Polish
- Definite and indefinite quantifiers
- No significant relation between the position of the quantifier and the aspect
- But! Noticeable difference between Vendler's accomplishments and achievements for definite iteration (IPF accomplishments vs. PF achievements)

Some different results for different types of verbs
→ possible impact of Vendler's verb classes on aspect

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Some different results for different types of verbs
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Vendler's verb classes

- Vendler (1957/1967)
  - States
  - Activities
  - Achievements
  - Accomplishments
- Mehlig (1981): Vendler's classes for Russian (but also other Slavic languages)
- Laskowski (1996): similar verb classes for Polish

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Vendler's verb classes

- **States**: stative, durative and atelic:

to love, to know, to believe
kochać, wiedzieć, wierzyć

- **Activities***:* dynamic, durative and atelic:

to draw, *to run*, *to smoke*
rysować, biec, palić

- **Achievements**: dynamic, punctual and telic:

to reach the top, *to win the race*
dotrzeć, wygrać

- **Accomplishments**: dynamic, durative and telic:

to run a mile, *to draw a circle*
przebiec maraton, narysować koło

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Iterative contexts
Aspectual competition

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Corpus search

What can be found in the corpora?
Base for further experiment(s)?

Expectation aspect:

dwa razy	wiele razy	dwa razy w tygodniu
PF≥ IPF	PF < IPF	PF < IPF

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Corpus search I: NKJP

The National Corpus of Polish - Narodowy Korpus Języka Polskiego (NKJP): 1,8 bn. tokens

- 50% journalisitic texts
- 16% fiction
- 10% spoken language
- 5,5% non-fictional texts
- 5,5% manuals
- also: forums, blogs, scientific books; not classified texts...

Balanced version: 300 m.

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Corpus search I: NKJP

Looking for:

„dwa razy“, „wiele razy“ or „dwa razy w tygodniu“
+
verb in past tense, PF or IPF

(additional: except for modal verbs)

e.g.:
[tag!="num:.*"][orth="dwa"][orth="razy"][orth="w"][orth="tygodniu"]
[tag="praet:.*.:imperf"&base!="być|mieć|móc|chcieć"]

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Corpus search I: NKJP

- Results after „cleaning out” the false positives

Quantifier	IPF	PF	total	Ratio IPF/PF
dwa razy	420 (43%)	551 (57%)	971 (100%)	0,76
wiele razy	513 (89%)	64 (11%)	577 (100%)	8,01
dwa razy w tygodniu	36 (97%)	1 (3%)	37 (100%)	36

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Corpus search I: NKJP

- Only one example for dwa razy w tygodniu + perfective verb:

„[...] *ona prowadziła tę piekarnię, a była członkinią Chóru mieszanego "Lutnia" w Dortmund, a ja tego "Chóru" dyrygentem, co tydzień po lekcji a czasem* ***i dwa razy w tygodniu uprosiłem*** *od niej bez kartek jedyn dwu kilowy chleb* […]“

„[…] she led that bakery, she was a member of the mixed choir „Lutnia“ in Dortmund and I was the conductor of that choir, every week after the lesson, sometimes even twice a week, I **entreated** her to give me a two-kilogramm-loaf without any ration cards“

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„[…] she led that bakery, she was a member of the mixed choir „Lutnia“ in Dortmund and I was the conductor of that choir, every week after the lesson, sometimes even twice a week, I **entreated** her to give me a two-kilogramm-loaf without any ration cards“

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Corpus search II: APM

Araneum Polonicum Maius

- hosted by the Czech National Corpus
- 1,2 bn tokens
- Web corpus, license-free data from the Internet:
  - forums, blogs, license-free literature etc.

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Corpus search II: APM

Looking for:

„dwa razy“, „wiele razy“ or „dwa razy w tygodniu“
+
verb in past tense, PF or IPF

(additional: except for modal verbs)

e.g.:
[word="wiele"][word="razy"][tag="praet:.*.:imperf"&lemma!="być|mieć|móc|chcieć"]

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Corpus search II: APM

- Results after „cleaning out” the false positives:

Quantifier	IPF	PF	total	ratio IPF/PF
dwa razy	406 (38%)	675 (62%)	1081 (100%)	0,6
wiele razy	847 (81%)	194 (19%)	1041 (100%)	4,37
dwa razy w tygodniu	36 (100%)	0	36 (100%)	-

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dwa razy w tygodniu + PF: very few conditional sentences, e.g.:

„[...] dobrze jest **aby dwa razy w tygodniu zadbały-PF** o lekki, rekreacyjny ruch np. Pływanie [...]"

„[...] it ist good to have some easy, recreational moving, for example swimming, twice a week [...] "

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Corpus search II:

- Results from APM:

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Corpus Results: Aspect

dwa razy	wiele razy	dwa razy w tygodniu
PF > IPF	PF < IPF	PF << IPF

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Corpus search II: APM

- Most frequent verbs (APM)

dwa razy + IPF			dwa razy + PF		
Verb	**English**	**Number**	**Verb**	**English**	**Number**
próbować	to try	15	wygrać	to win	32
wygrywać	to win	14	przegrać	to lose	30
stawać	to stand	10	udać (się)	to pretend/to be successful	28
zmieniać	to change	8	trafić	to hit	27
wychodzić	to come out	7	zostać	to become	27
triumfować	to triumph	7	zdarzyć	to occur	18
zdobywać	to get	7	zdobyć	to get	18
podchodzić	to walk to	6	pokonać	to overcome	17
padać	to fall	6	odwiedzić	to visit	11
schodzić	to walk down	6	dostać	to obtain	10

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próbować	to try	30	zdarzyć	to occur	23
mówić	to speak/to talk	28	udać (się)	to pretend/to be successful	13
słyszeć	to hear	26	zostać	to become	11
pisać	to write	19	przekonać	to convince	11
zmieniać	to change	19	udowodnić	to prove	11
widzieć	to see	18	uratować	to save	7
powtarzać	to repeat	16	okazać	to show	7
zdarzać	to occur	14	dać	to give	5
podkreślać	to underline	13	pokazać	to show	5
pytać	to ask	8	pomóc	to help	4

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Corpus search II: APM

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wiele razy + IPF			wiele razy + PF		
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pytać	to ask	8	pomóc	to help	4

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Corpus search II: APM

- Most frequent verbs (APM)

dwa razy w tygodniu + IPF			dwa razy w tygodniu + PF	
Verb	**English**	**Number**	**Verb**	**Number**
odbywać	to hold	6	-	-
latać	to fly	3	-	-
grać	to play	3	-	-
jeździć	to drive/to ride	3	-	-
chodzić	to go/to walk	2	-	-
spotykać	to meet	2	-	-
pojawiać	to appear	1	-	-
oglądać	to watch	1	-	-

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Corpus search: some more work to do

- Barentsen (1992): retrospective vs. narrative contexts
- Statistics on Vendler's classes

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Corpus search II: APM

→ The most frequent achievements and (potential) accomplishments serve as the base for an acceptability-experiment

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More empirical data: Experiment

- „Judgment“: is the given sentence grammatically acceptable? Choice between three possibilities; the sentence is…
  - acceptable („dopuszczalne“)
  - not acceptable („niedopuszczalne“)
  - conditionally acceptable („warunkowo dopuszczalne“)

- Tool: *OnExp* (Goettingen University)
- Test persons: Polish native speakers

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Experiment: Expectations

dwa razy	wiele razy	dwa razy w tygodniu
PF > IPF	PF < IPF	PF << IPF

Vendler's classes have impact on aspect:

- achievements more often PF
- accomplishments more often IPF

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Criterion	States	Activities	Accomplishments	Achievements
1. meets non-stative tests	no	yes	yes	?
2. has habitual interpretation in simple present tense:	no	yes	yes	yes
3. φ for an hour, spend an hour φ-ing:	OK	OK	OK	Bad
4. φ in an hour, take an hour to φ:	bad	bad	OK	OK
5. φ for an hour entails φ at all times in the hour:	yes	yes	no	d.n.a.
6. x is φ-ing entails x has φ-ed:	d.n.a.	yes	no	d.n.a
7. complement of stop:	OK	OK	OK	Bad
8. complement of finish:	bad	bad	OK	bad
9. ambiguity with almost:	no	no	yes	no
10. x φ-ed in an hour entails x was φ-ing during that hour:	d.n.a.	d.n.a.	yes	no
11. occurs with studiously, attentively, carefully, etc.	bad	OK	OK	bad

Searching for the most frequent achievements and accomplishments in the corpus data…

(Dowty 1979)

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Experiment: Achievements

Nr.	imperfective verb	perfective verb	English
1.	wracać	wrócić	to return
2.	pojawiać (się)	pojawić (się)	to appear
3.	przegrywać	przegrać	to lose
4.	trafiać	trafić	to hit
5.	zmieniać	zmienić	to change
6.	znajdować	znaleźć	to find
7.	wygrywać	wygrać	to win
8.	otwierać	otworzyć	to open

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Experiment: Accomplishments

Nr.	imperfective verb	perfective verb	English
1.	czytać + object	przeczytać + object	to read + object
2.	opowiadać + object	opowiedzieć + object	to tell + object
3.	pisać + object	napisać + object	to write + object
4.	oglądać + object	obejrzeć + object	to look at + object
5.	budować + object	zbudować + object	to build + object
6.	malować + object	namalować + object	to paint + object
7.	naprawiać + object	naprawić + object	to repair + object
8.	rysować + object	narysować + object	to draw + object

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Experiment: Design

- Conditions
  - Three different types of iterativity
    - definite iterativity: *dwa razy*
    - indefinite iterativity: *wiele razy*
    - complex iterativity: *dwa razy w tygodniu*
  - 16 different verbs: 8 ACC + 8 ACH
  - Two aspects, IPF and PF

    → 96 different items

+ 96 fillers (control-items, mismatches, „true“ fillers)

= 192 different sentences in total

Trying not to discourage potential participants

→ 6 sets of sentences („lists“), 32 sentences in random order

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Experiment: Items

W ramach + gen subject quantifier verb + object

Example:
a) W ramach przygotowań do egzaminu Jacek wiele razy/dwa razy/dwa razy w tygodniu **czytał-IPF** podręcznik.
b) W ramach przygotowań do egzaminu Jacek wiele razy/dwa razy/dwa razy w tygodniu **przeczytał-PF** podręcznik.

„as part of his preparations for the exam Jacek read the study book many times“

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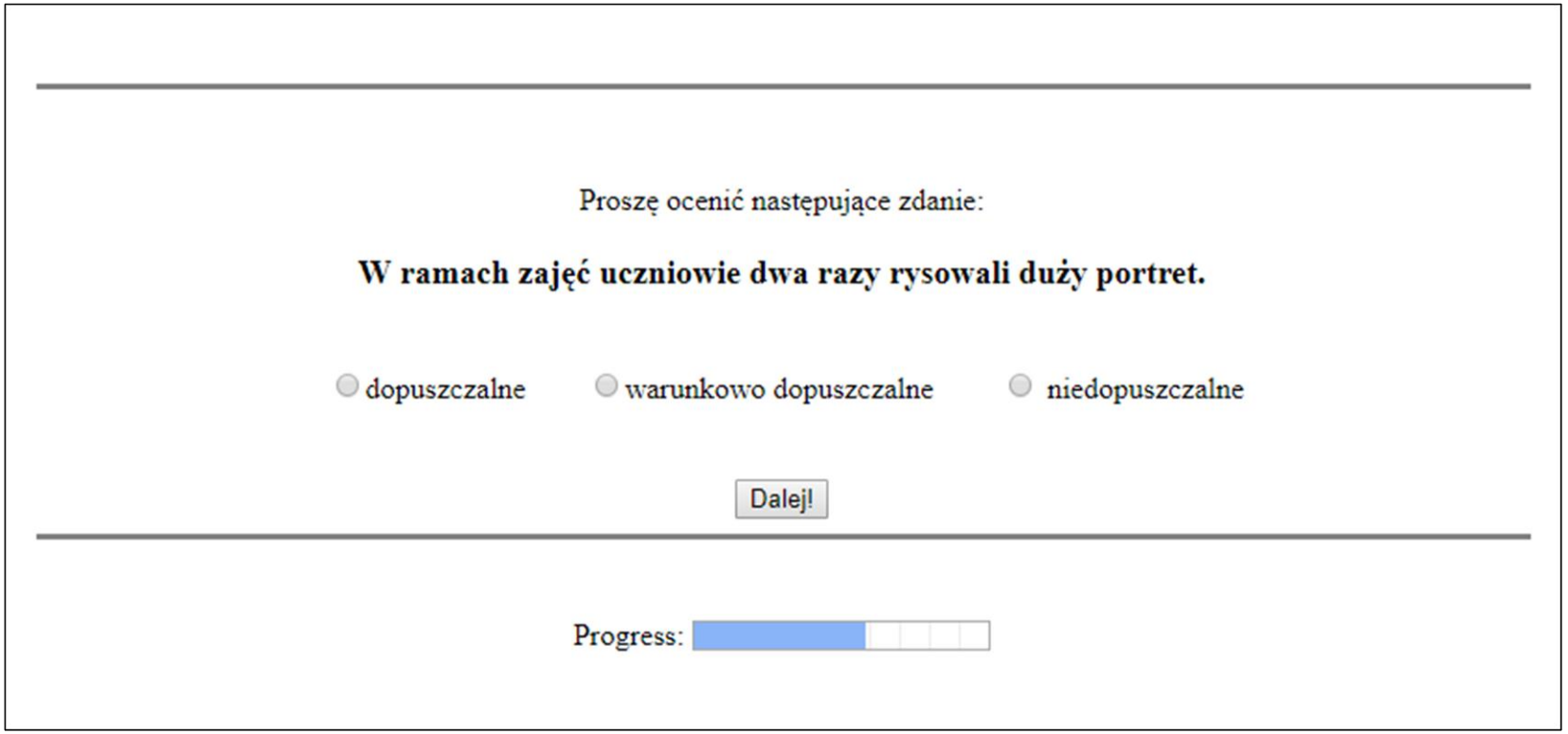

Running experiment, screenshot

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Experiment: Control sentences / mismatches

1. States + quantifiers:

   *W ramach dyskusji Agata **dwa razy wiedziała-IPF** prawdę.
   *During the discussion Agata knew the truth two times.

2. Activites + quantifiers:

   W ramach przygotowania do maratonu Zbigniew **wiele razy biegał-IPF** na stadionie.
   During/As part of his preparation to the marathon Zbigniew ran in a stadium many times

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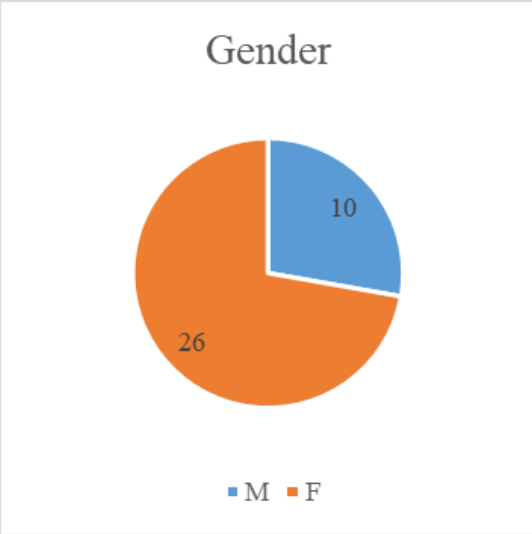
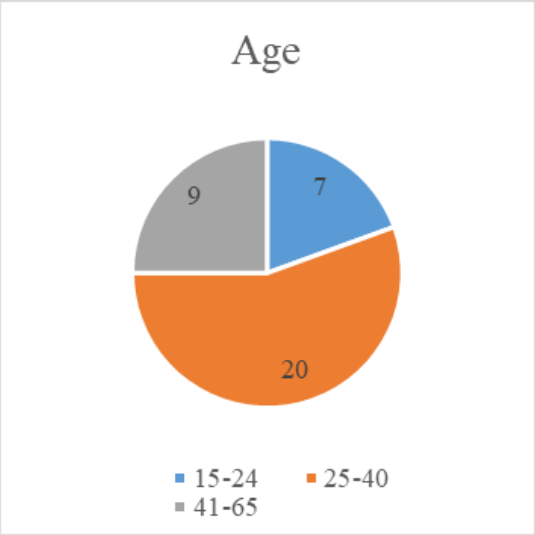
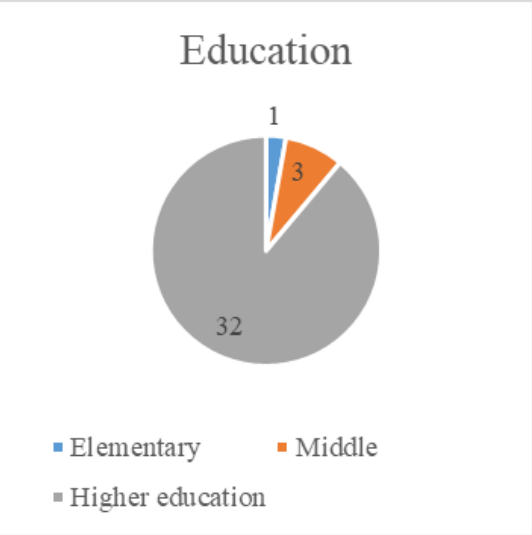
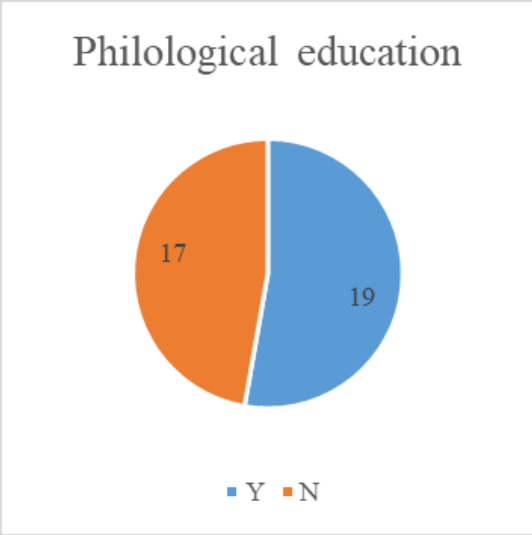
Experiment: Test persons

- 36 participants
- Requirement: Polish native speakers









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Results: Control items / mismatches

	acceptable	conditionally acceptable	not acceptable
Intentionaly correct	**78%**	12,5%	9,5%
Intentionally incorrect	2,8%	5,5%	**91,7%**

Examples:

W ramach treningu Jarosław wiele razy pływał w jeziorze.

*W ramach turneju Andrzej dwa razy w tygodniu wierzył w siebe.

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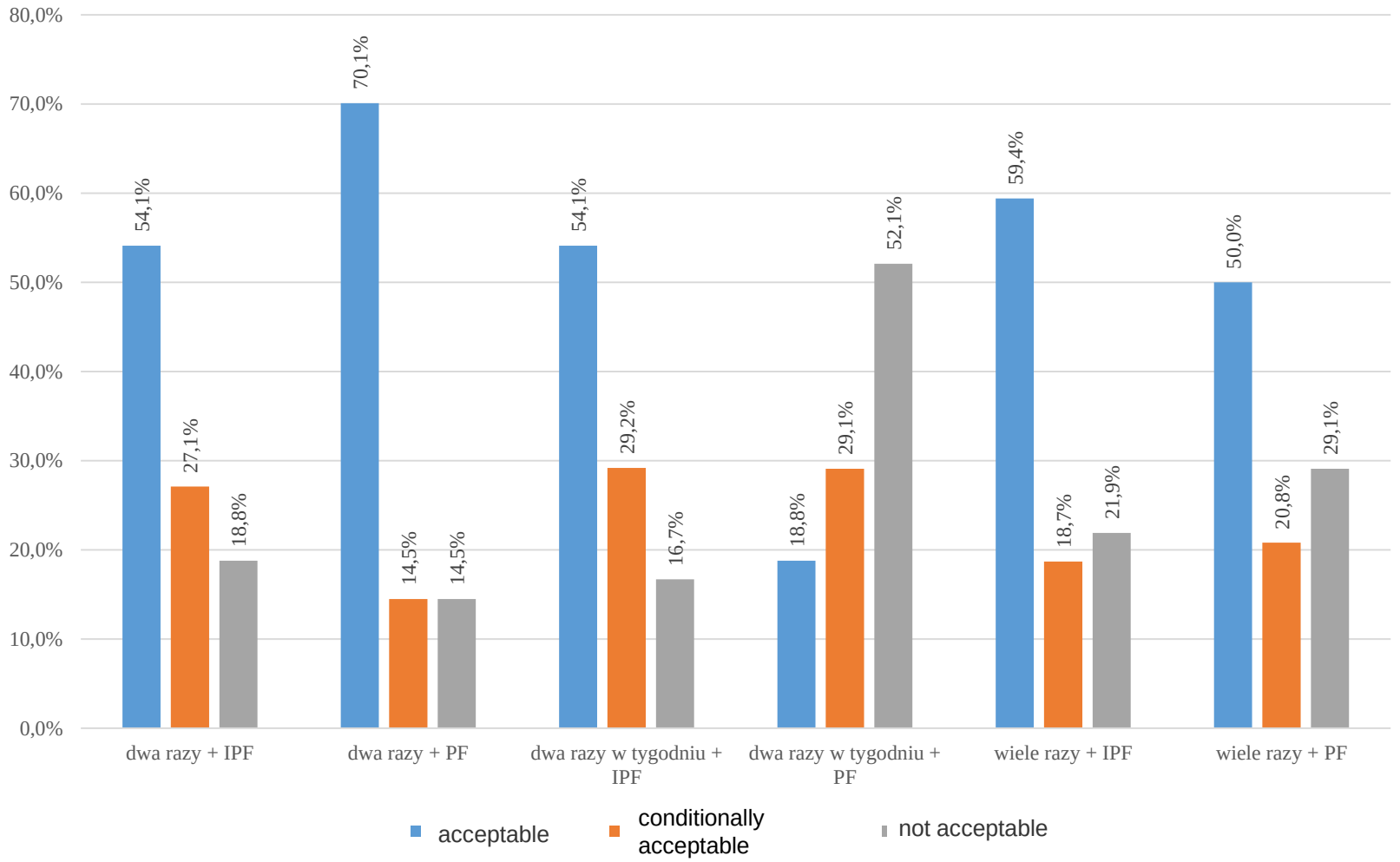

Acceptance of items in relations to quantifier + aspect

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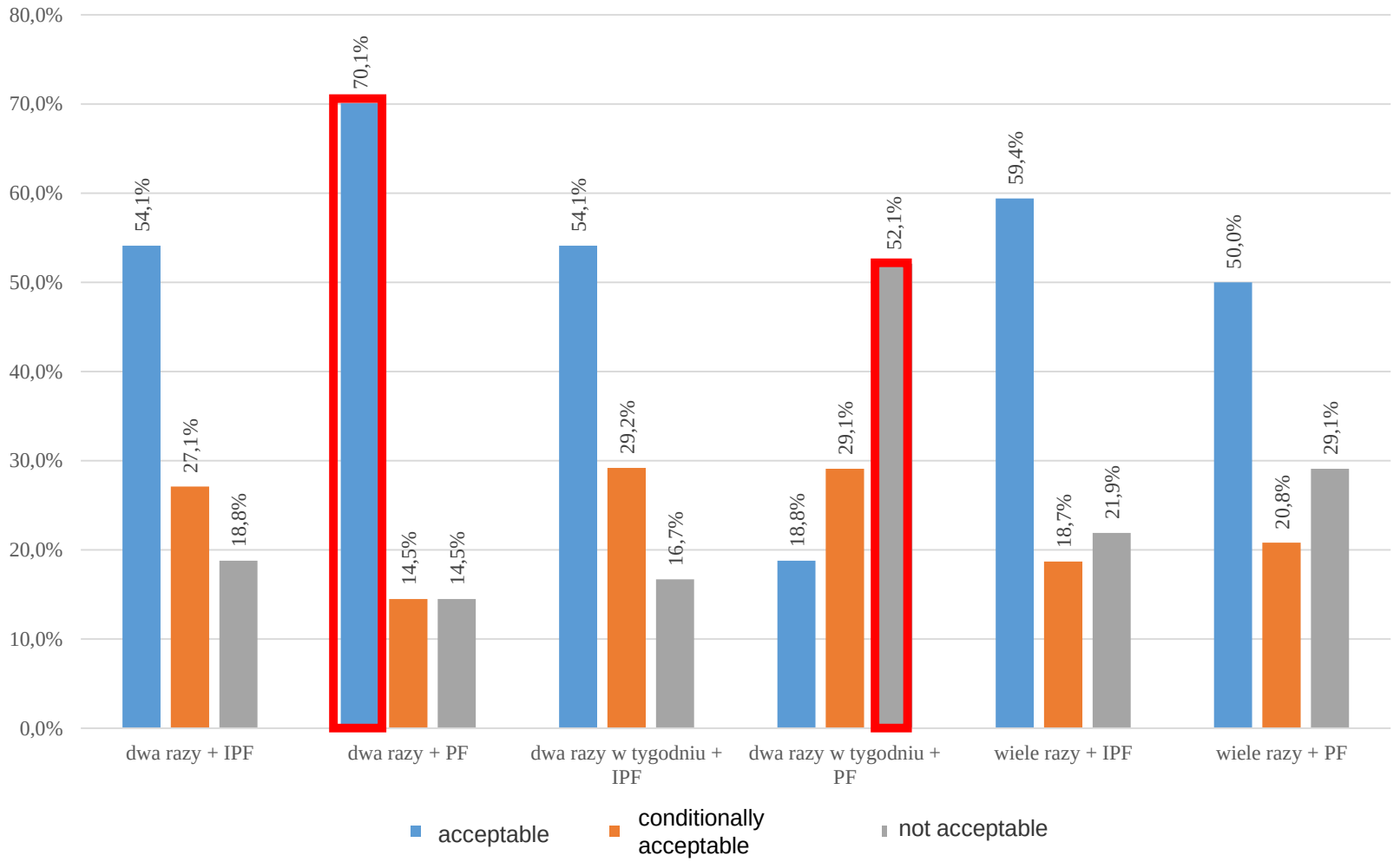

Acceptance of items in relation to quantifier + aspect

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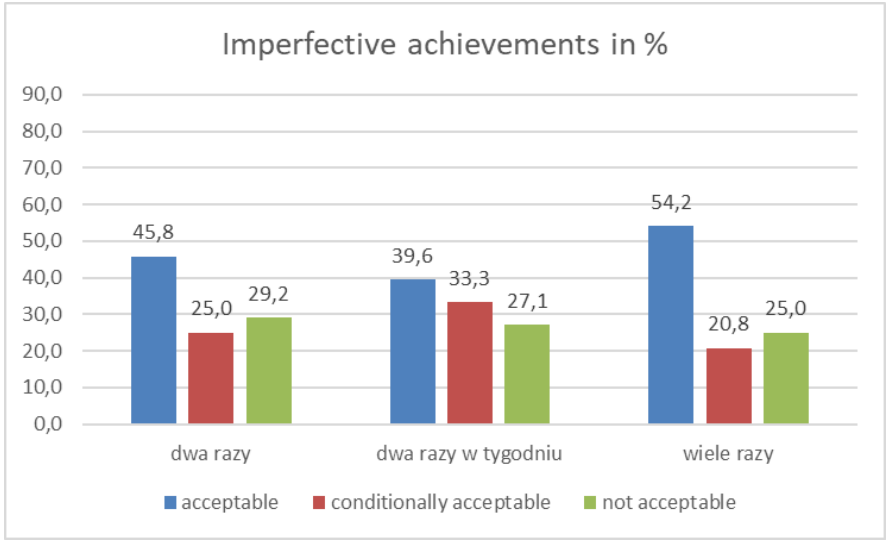

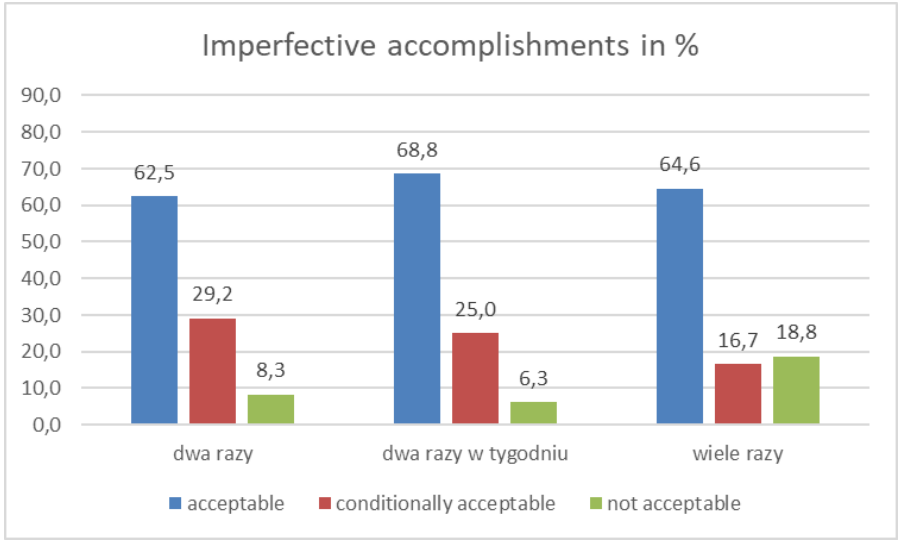

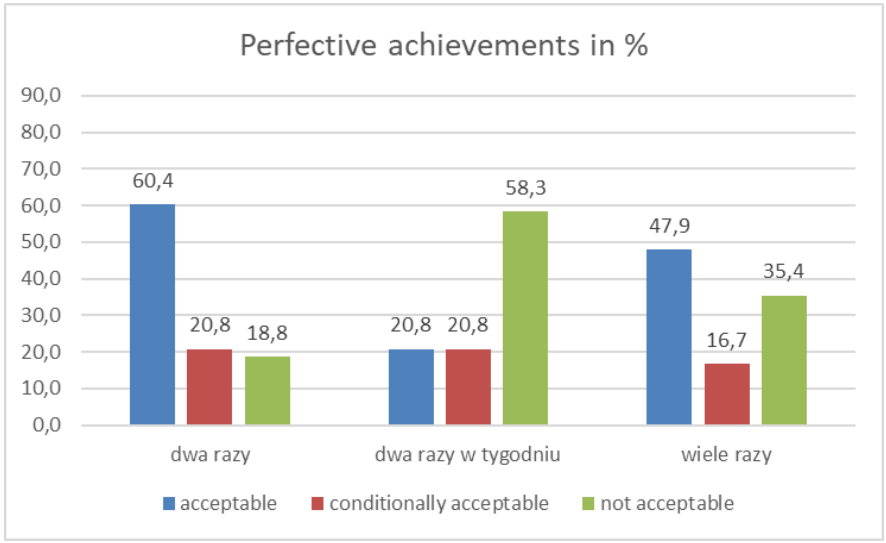

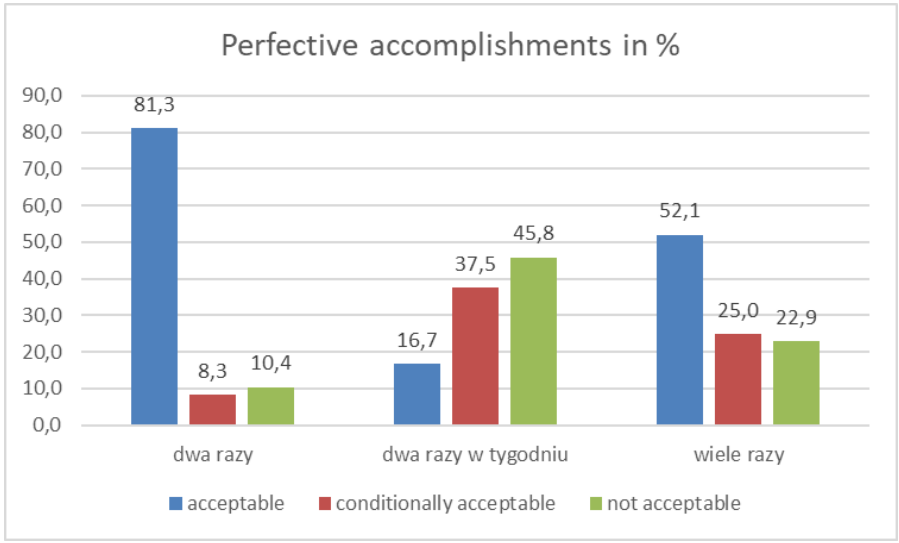

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	dwa razy + IPF	dwa razy + PF	dwa razy w tygodniu + IPF	dwa razy w tygodniu + PF	wiele razy + IPF	wiele razy + PF
ACH	29,2%	18,8%	27,1%	58,3%	25,0%	35,4%
ACC	8,3%	10,4%	6,3%	45,8%	18,8%	22,9%

Combinations of verbs and quanifiers evaluated as **not acceptable**

	dwa razy + IPF	dwa razy + PF	dwa razy w tygodniu + IPF	dwa razy w tygodniu + PF	wiele razy + IPF	wiele razy + PF
ACH	45,8%	60,4%	39,6%	20,8%	54,2%	47,9%
ACC	62,5%	81,3%	68,6%	16,7%	64,6%	52,1%

Combinations of verbs and quanifiers evaluated as **acceptable**

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	dwa razy + IPF	dwa razy + PF	dwa razy w tygodniu + IPF	dwa razy w tygodniu + PF	wiele razy + IPF	wiele razy + PF
ACH	29,2%	18,8%	27,1%	58,3%	25,0%	35,4%
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Combinations of verbs and quanifiers evaluated as **not acceptable**

	dwa razy + IPF	dwa razy + PF	dwa razy w tygodniu + IPF	dwa razy w tygodniu + PF	wiele razy + IPF	wiele razy + PF
ACH	45,8%	60,4%	39,6%	20,8%	54,2%	47,9%
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Combinations of verbs and quanifiers evaluated as **acceptable**

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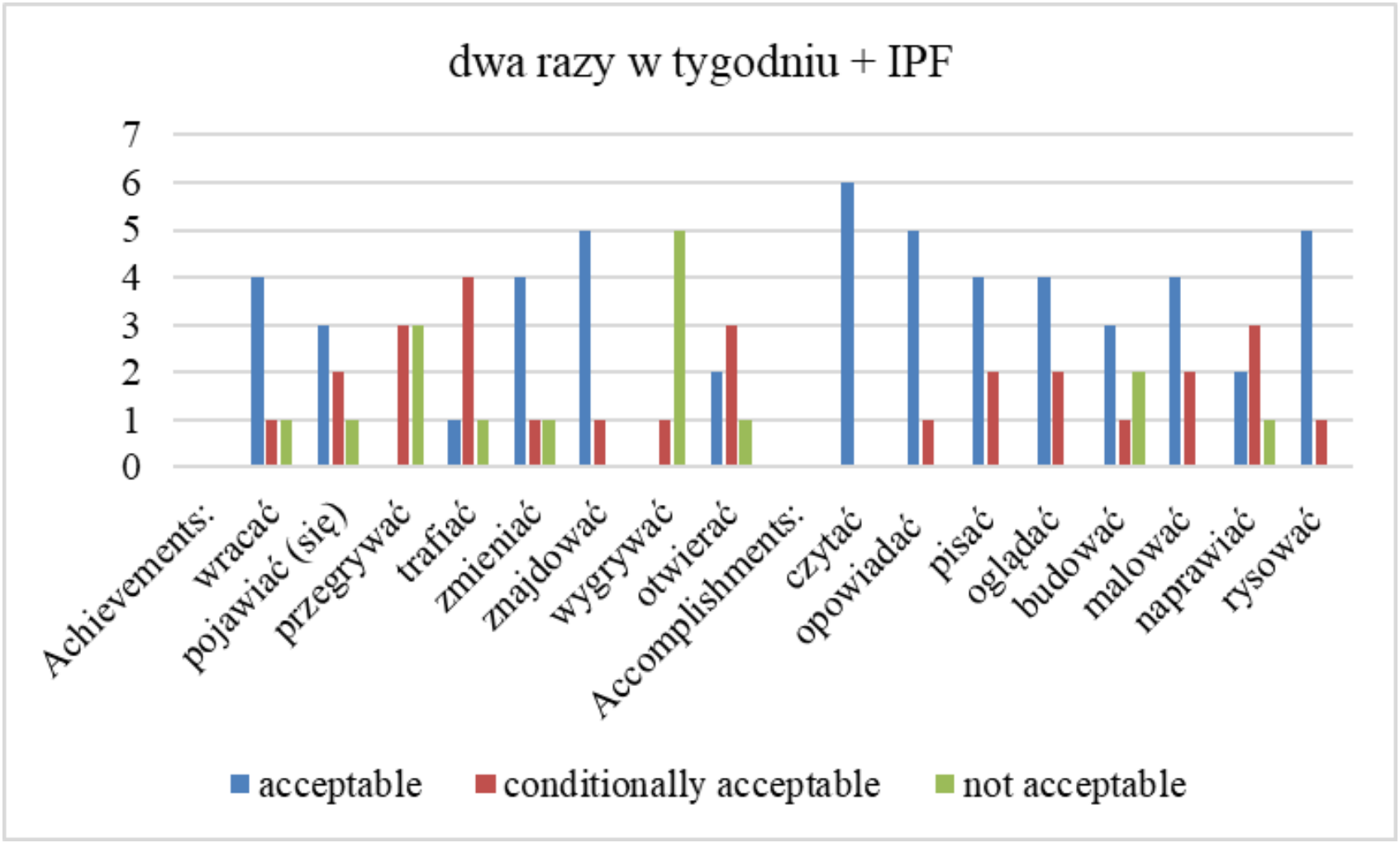

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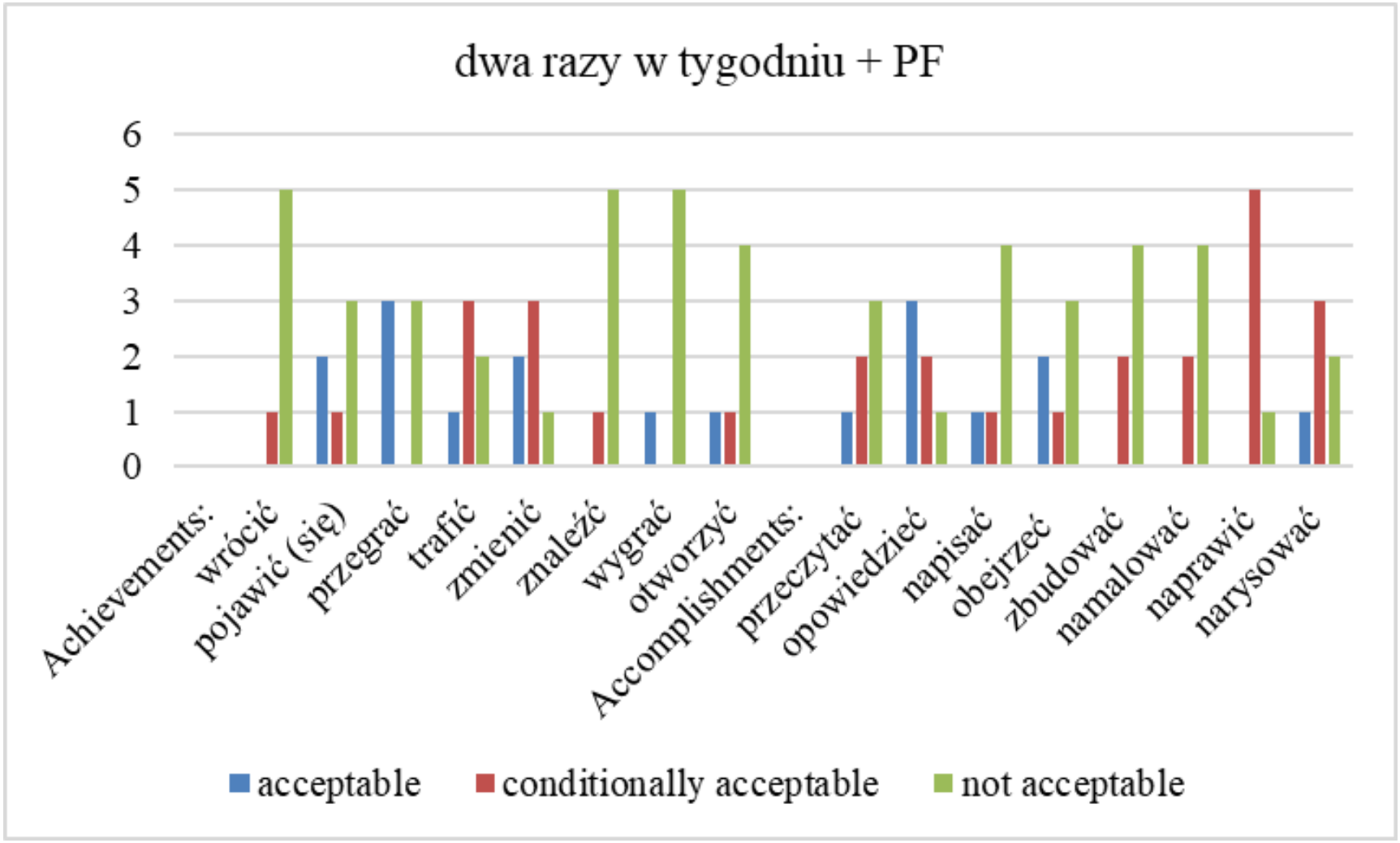

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Significance: *t*-Test

- Difference for acceptability between achievements and accomplishments:
  - for „acceptable“: $p < 0{,}05 \rightarrow$ significant difference
  - for „not acceptable“: $p < 0{,}01 \rightarrow$ very significant difference

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Experiment: Expectations

dwa razy	wiele razy	dwa razy w tygodniu
PF > IPF	PF < IPF	PF << IPF

Vendler's classes have impact on aspect:

- achievements more often PF
- accomplishments more often IPF

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Experiment: Results

dwa razy	wiele razy	dwa razy w tygodniu
PF > IPF	PF < IPF	PF << IPF

Within the results of the experiment Vendler‘s verb classes play a *significant* (or even *very significant*) role for the acceptance of verbal aspect

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Results: conclusion

- Expected ratio of PF/IPF approved:
  - PF: *dwa razy* > *wiele razy* > *dwa razy w tygodniu*
  - IPF: *dwa razy w tygodniu* > *wiele razy* > *dwa razy*
- Vendlers classes have impact on aspect acceptance
- Significant differences between accomplishments and achievements
- Overall: less acceptance for achievements in iterative contexts
- Most significant difference between IPF ACC and IPF ACH in combination with *dwa razy w tygodniu*
- Unexpected result for PF-verbs in combination with *dwa razy w tygodniu:* 20% acceptance!

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Some open questions

- What causes such a difference between the results for achievements and for accomplishments?
- Differences within the classes? *Aktionsarten*?
- Why do the test persons accept PF with „dwa razy w tygodniu“?

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Thank you!

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