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Social Pressure and Conformity in the Loss Domain

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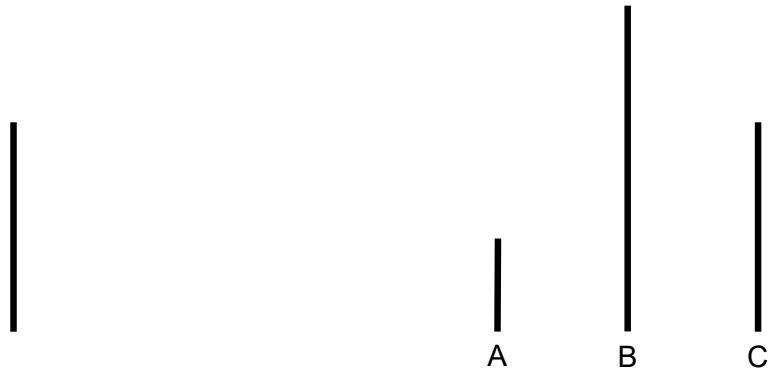
General Problem

- Seminal work on conformity by Solomon Asch (1951, 1956):



A.1

General Problem

- Seminal work on conformity by Solomon Asch (1951, 1956):
  - In 1/3 of the possible answers, the sole subjects succumbed to the social pressure of a majority of 7 and gave a wrong answer.
  - In the control group without social pressure, the tasks were almost exclusively solved correctly.

- Results have been corroborated in a series of similar experiments since, among others
  - Franzen and Mader (2023): If it becomes individually costly, conformity decreases (about 8% points or $\sim 1/4$).

Research Question

- Criticism regarding experimental incentives; "house money effect" (Thaler, 1999), "windfall gains" (Arkes et al., 1994) let subjects act more carefree than in real actions.
- In many real-world situations losses are at stake, e.g.
  - COVID19-crisis
  - climate change, de-growth
  - wars
  - etc.

Q: Does social conformity collapse in the loss domain?

Social Pressure and Conformity

- Social conformity is ubiquitous in sociology, and there are several causal explanations for it
- Here, we only look at two broad categories of explanation, namely
  1. informational influence, public and private opinion change
  2. normative influence, only public opinion change (Spears, 2021)
- Though never stated explicitly, Asch seems to consider the case of normative influence.

Loss and Prospect Theory (Kahneman and Tversky, 1979)

- Actors decide differently in structurally identical situations depending on gains and losses. Namely, they...
  - avoid risk in the gains domain.
  - seek risk in the loss domain.
  - value losses about twice as much as objective similar gains ("losses loom larger than gains").
- Though originally formulated for hypothetic, parametric decisions against nature, it has been shown, that
- losses are valued stronger in real strategic decisions (Berger, 2013; Kierspel et al., 2024; Neumann et al., 2018; Windrich et al., 2022, 2024).

Hypotheses

Therefore, we expect that...

- conformity should be reduced if losses are at stake (H1), because
  1. losses are valued heavier than gains and are correspondingly more avoided.
  2. actors are risk loving in the loss domain and should risk to decide against the informational and/or normative majority.
- This should hold the more, the more risk loving actors are (H2).

Or in other words:

- Risk seeking actors do conform less than risk averse actors (H2).
- This should hold especially in the loss domain (H1).

Study Design (adopted from Franzen and Mader (2023))

decision:
- 10 comparisons of the length of 3 lines to a reference line
- some task were very easy, some a little bit more ambiguous

majority:
- groups of 6 (5 confederates) announce their decision publicly in always the same sequence
- the sole critical subject is always in 5^{th} position

conformity:
- confederates give 4 correct and 6 wrong answers
- subjects can conform from 0 to 6 times

Study Design

gains:
- subjects fill in a short online-survey at home,
- come to the lab and win 1€ for every correct answer (plus + 5€ show up fee (max. 15€)).

loss:
- subjects get 15€ in cash two weeks ahead of the decision session (Rosenboim and Shavit, 2012; Thaler, 1999),
- fill in the online-survey at this occasion,
- two weeks later at the lab they loose 1€ for every wrong answer.

Data Collection: Subjects

- Confederates: Students of BA seminar "Applied Empirical Research"
- Subjects recruited from
  - "LEx – Leipziger Experimentallabor für Sozialwissenschaften" (n=68)
  - "MaXLab – Magdeburger Experimentallabor für Wirtschaftsforschung" (n=22)
  - Both pools open to the general public, yet mostly consisting of students.

Data Collection: treatments and case numbers

Goal (n):

- Gains-control: 75
- Loss-treatment: 75
- Without social pressure: 30

Realized (n):

- Gains-control: 25
- Loss-treatment: 62
- Cognitive control: 21

Data Collection: risk preferences

Decision on hypothetical lotteries on gains and losses

- 6 decisions from 0% to 100% probability
- plus 1 neutral 50/50 option.
  - Guaranteed 5€ vs. 0€ with 0% & 10€ with 100% (gain)
  - For sure -5€ vs. -0€ with 100% & -10€ with 0% (loss)
  - ...
  - Guaranteed 5€ vs. 0€ with 100% & 10€ with 0%
  - For sure -5€ vs. -0€ with 0% & -10€ with 100%
- Guttman scale with coefficient of reproducibility of 0.95 (gain) 0.98 (loss)

Data Collection: subjects characteristics

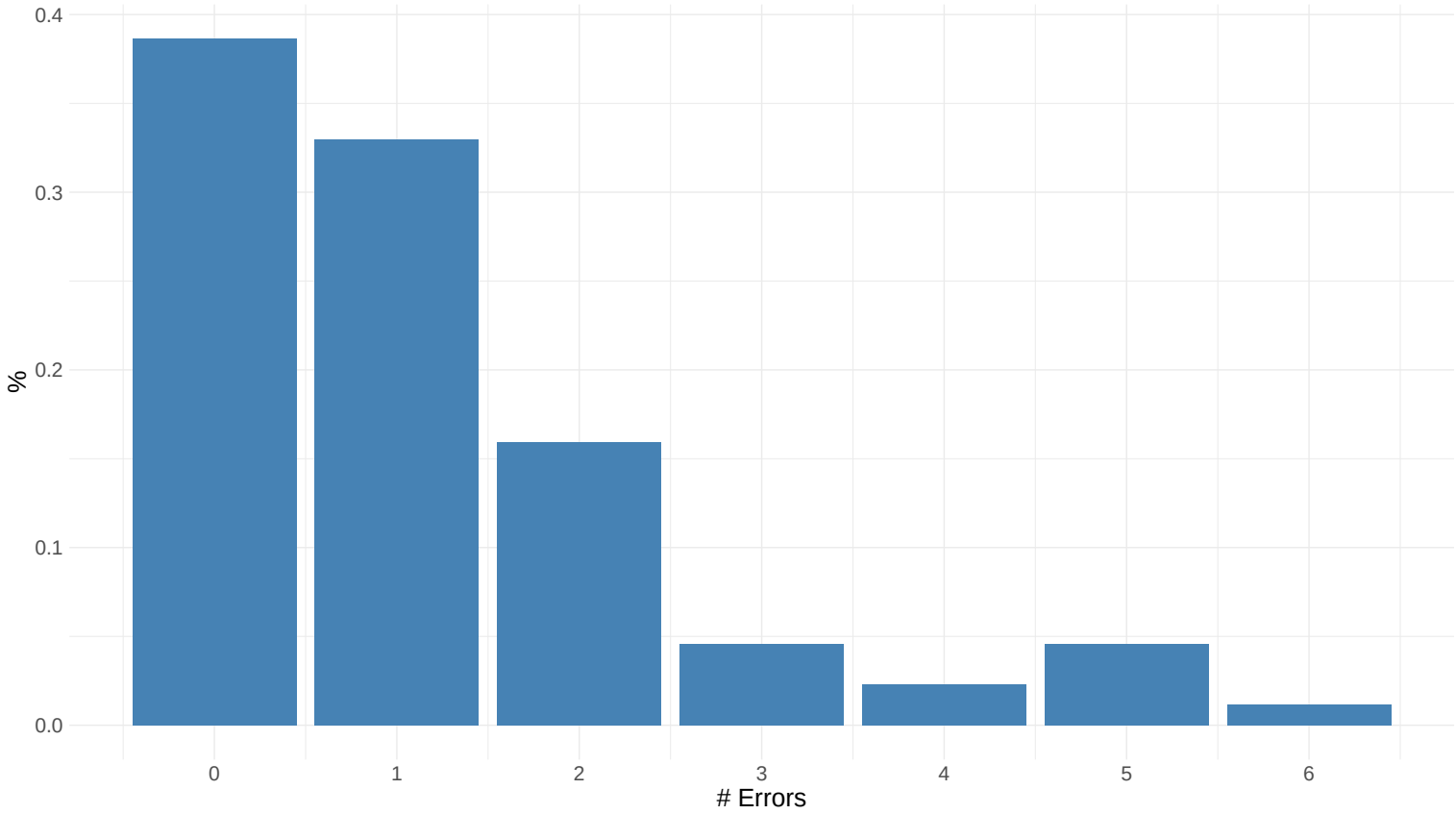
treatment	median age	gender			risk seeking
Gain	29	f: 52%	m: 40%	d: 8%	22.3%
Loss	26	f: 65%	m: 35%	d: 0%	56.4%

Table: subject descriptives

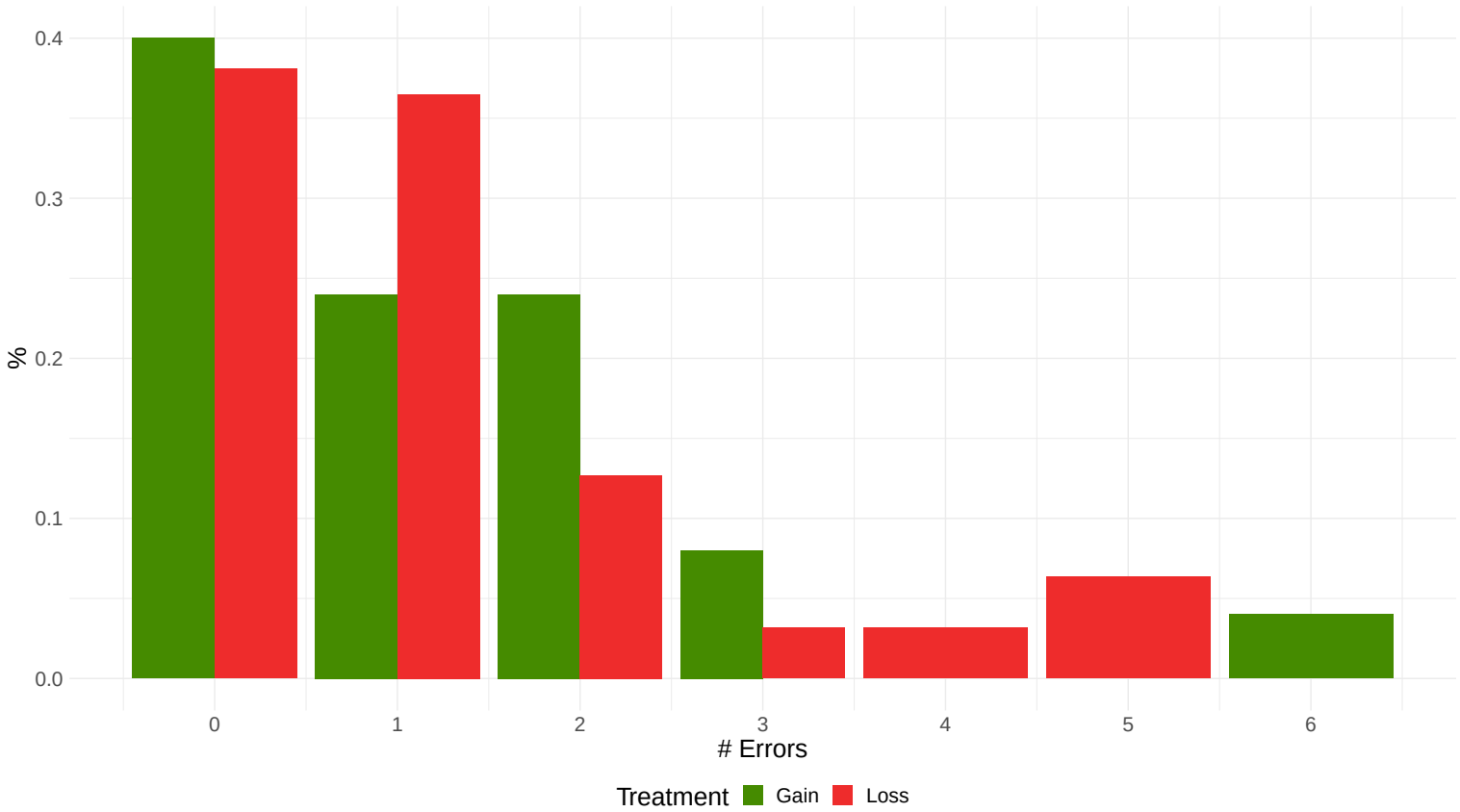
Descriptive results: Comparison with related studies

		Asch (1956)	Franzen and Mader (2023)	Our study
No social pressure	Overall conforming rate	0.08%	–	9.5%
	At least one error	5.4%	–	42.9%
No incentives	Overall conforming rate	36.8%	33%	–
	At least one error	76.4%	–	–
Gains	Overall conforming rate	–	25%	20%
	At least one error	–	–	60%
Losses	Overall conforming rate	–	–	18.3%
	At least one error	–	–	61.9%

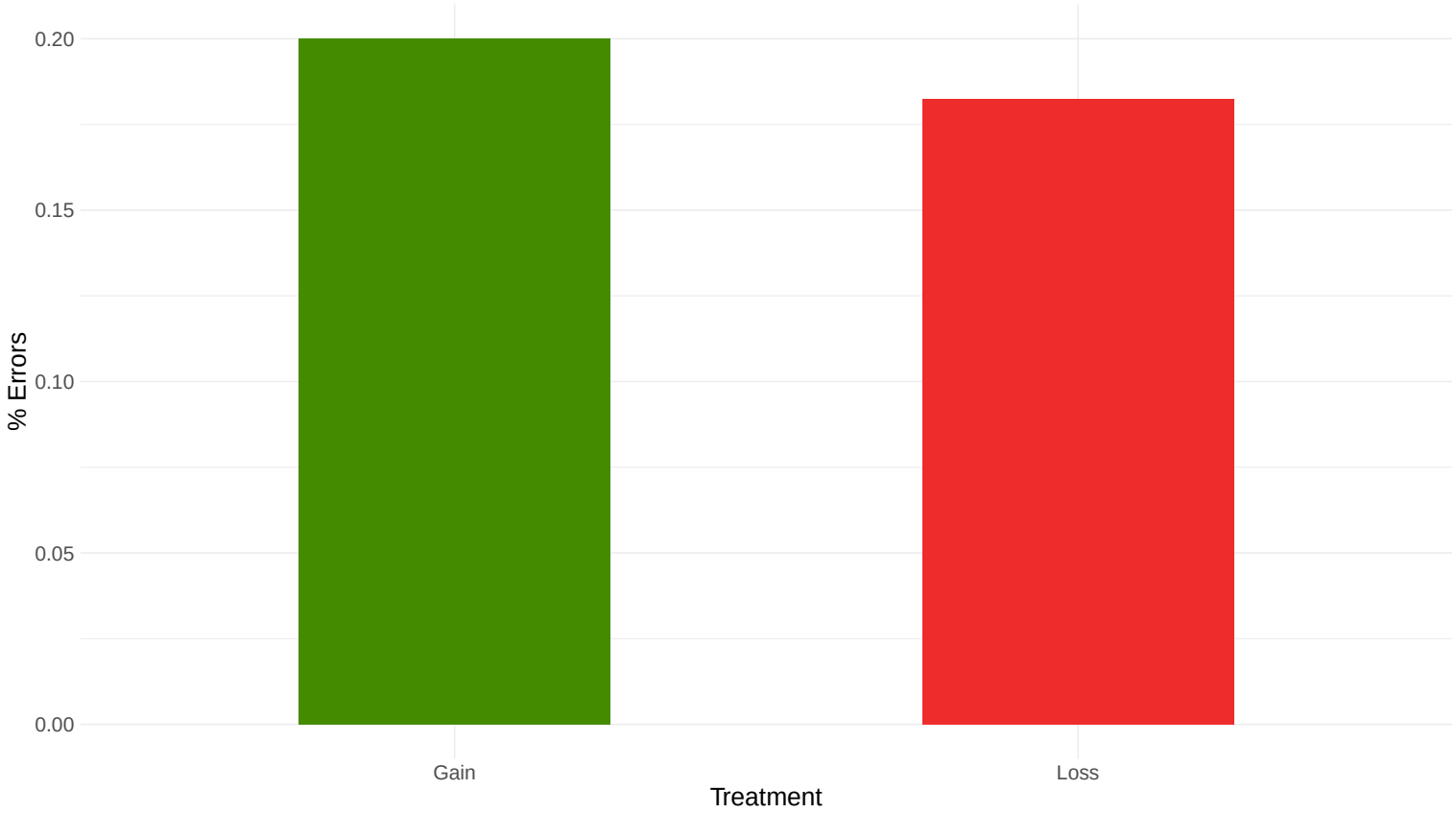
Descriptive results: Overall conforming rate (errors)



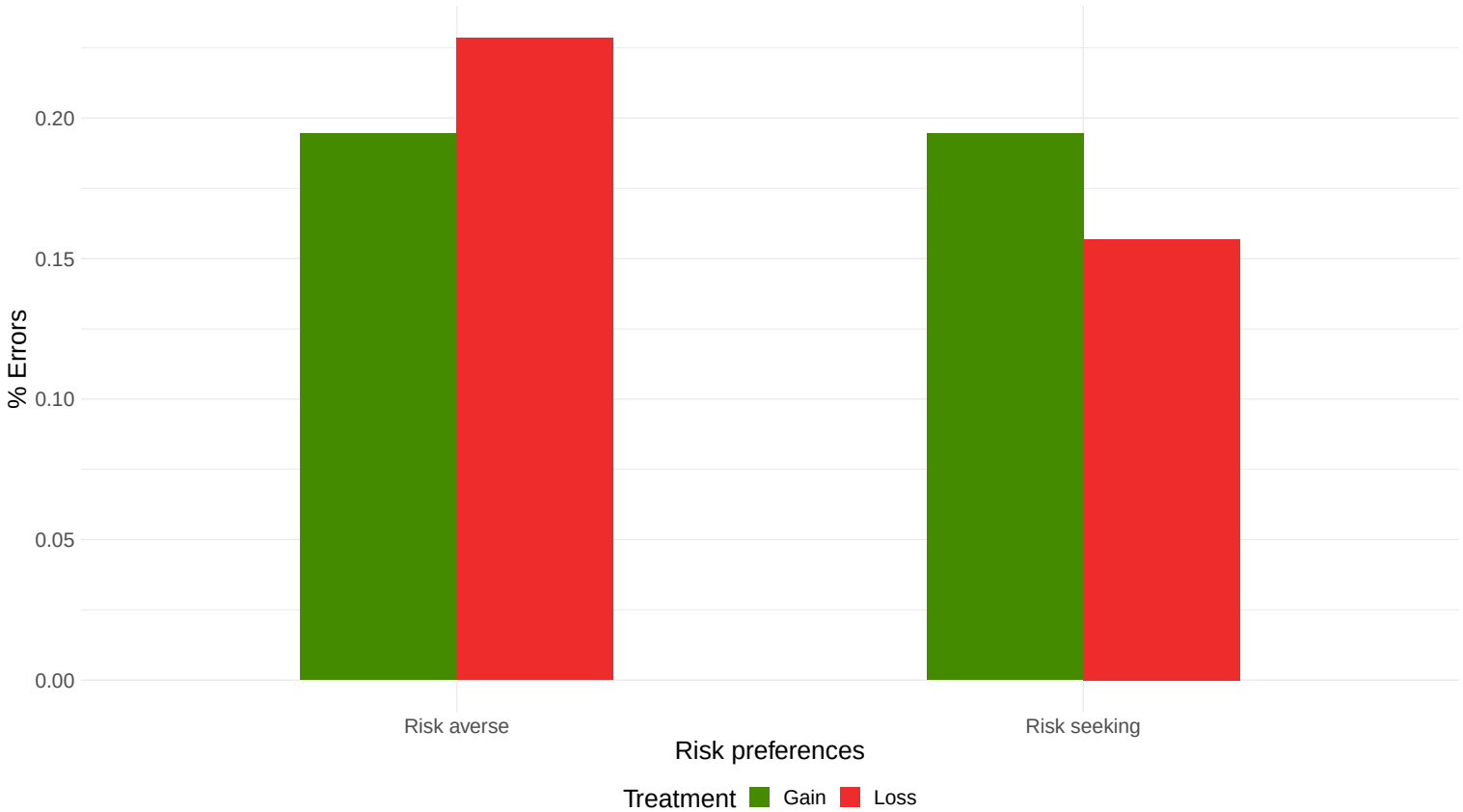
Descriptive results: Overall conforming (errors) by treatments



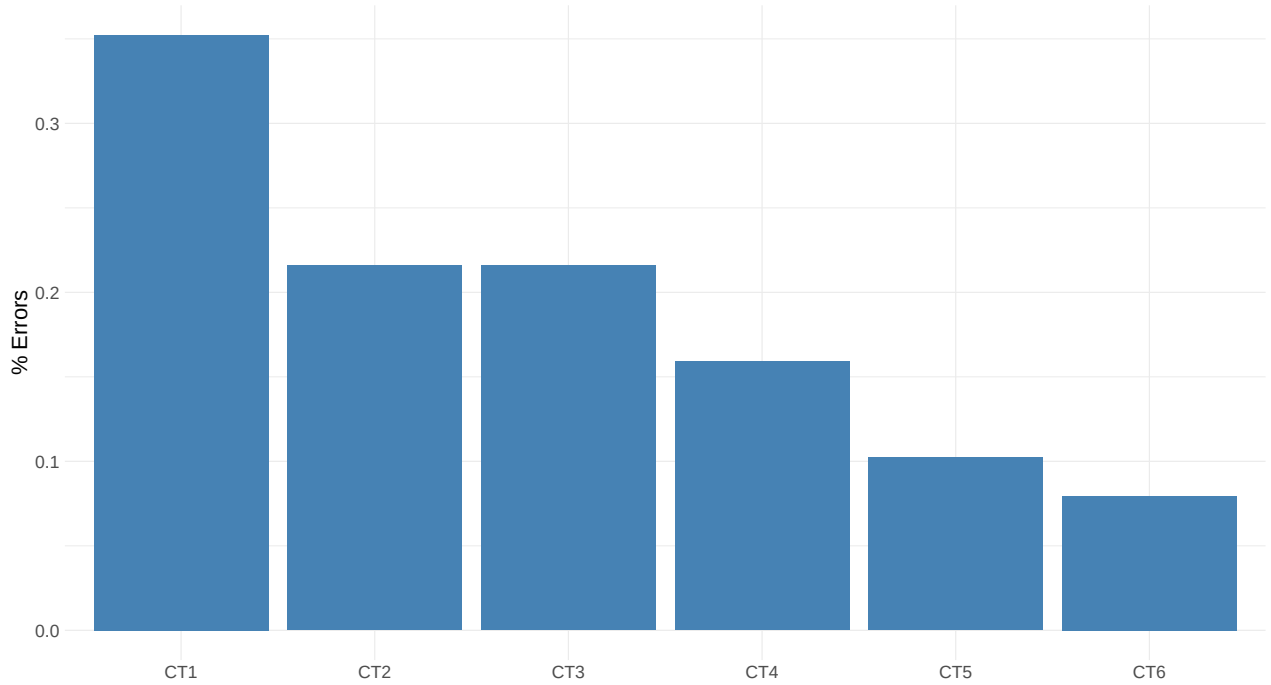
H1: Mean conforming rate (error) gain vs. loss



H2: Mean conforming rate (error) gain vs. loss by risk preferences

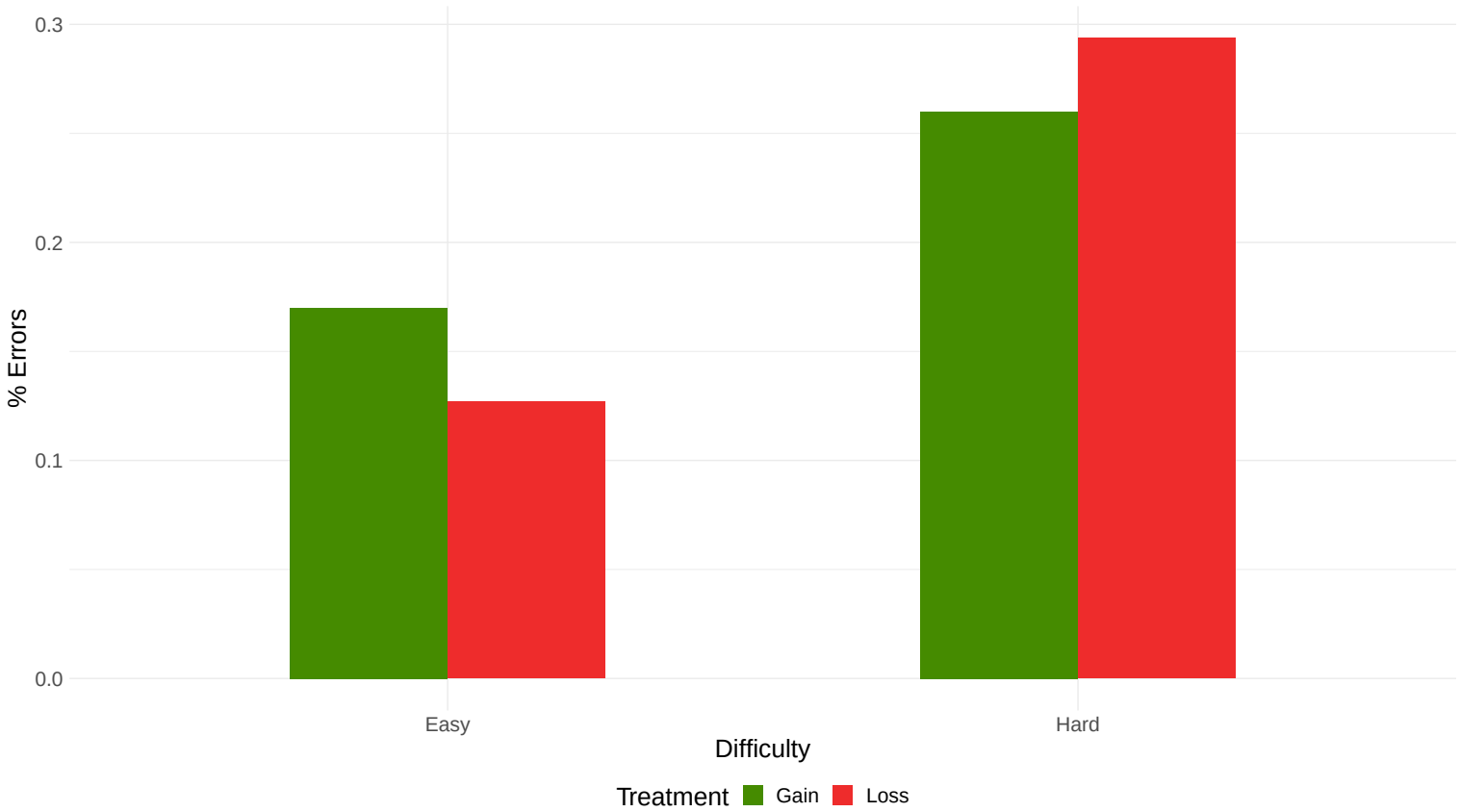


Explorative results: Mean conforming rate by tasks



1. tasks are differently difficult
2. which is also corroborated by the control without social pressure.

Explorative results: Mean conforming rate gain vs. loss by difficulty



Conclusion

- Due to power issues no conclusive evidence.
- Disregarding this, results indicate that in the loss domain
  - conformity decreases when tasks are unambigous
    - since losses are valued heavier than gains and
    - actors are more willing to risk defying the group.
- When tasks are ambigous, explanantions of the effect of losses on conformity are less straight-forward.

Outlook

- Collecting more cases
- More complex statistical analysis to explain
  - the number of conforming decisions
  - the sequence of conforming decisions
- Discriminating between informational and normative conformity.

Thank you for your attention!

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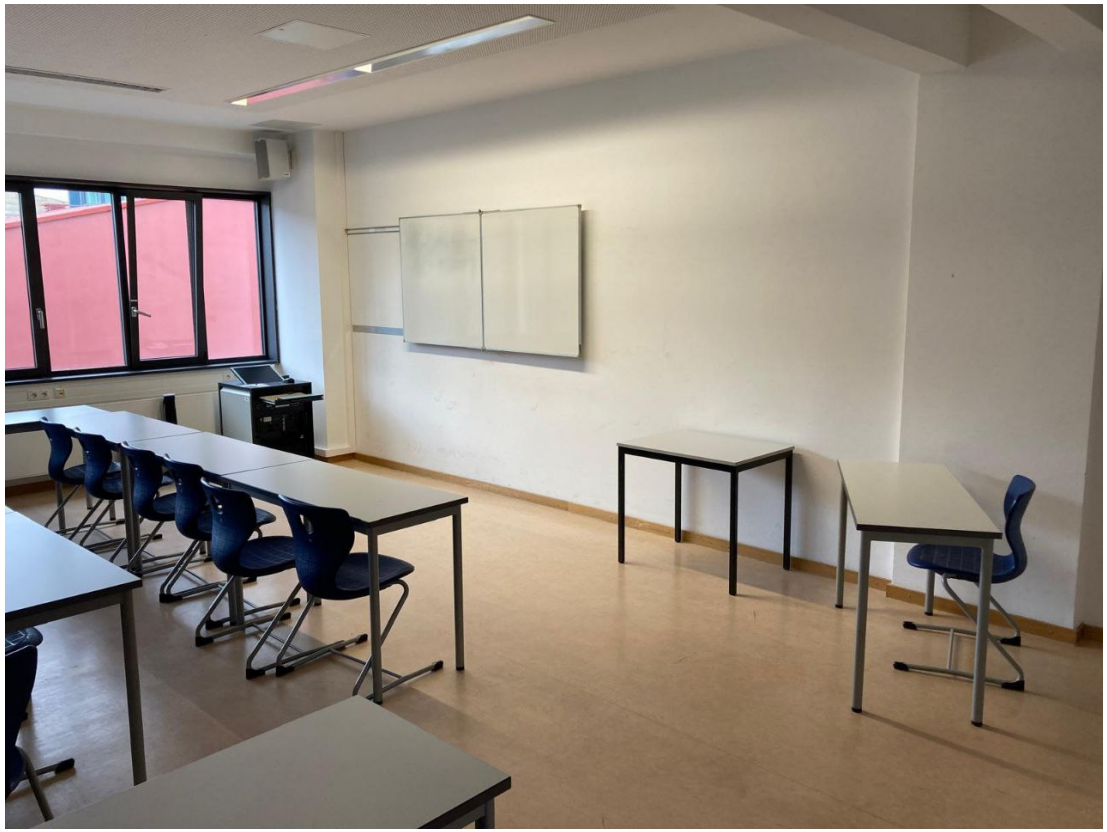
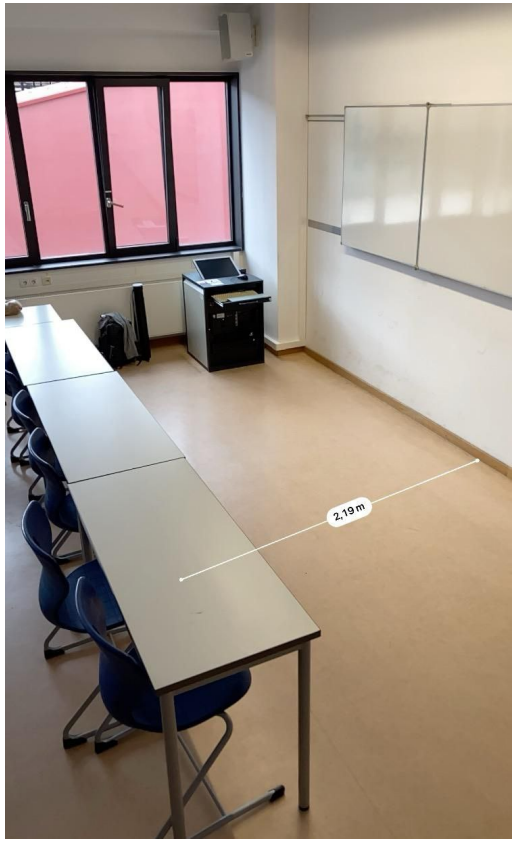
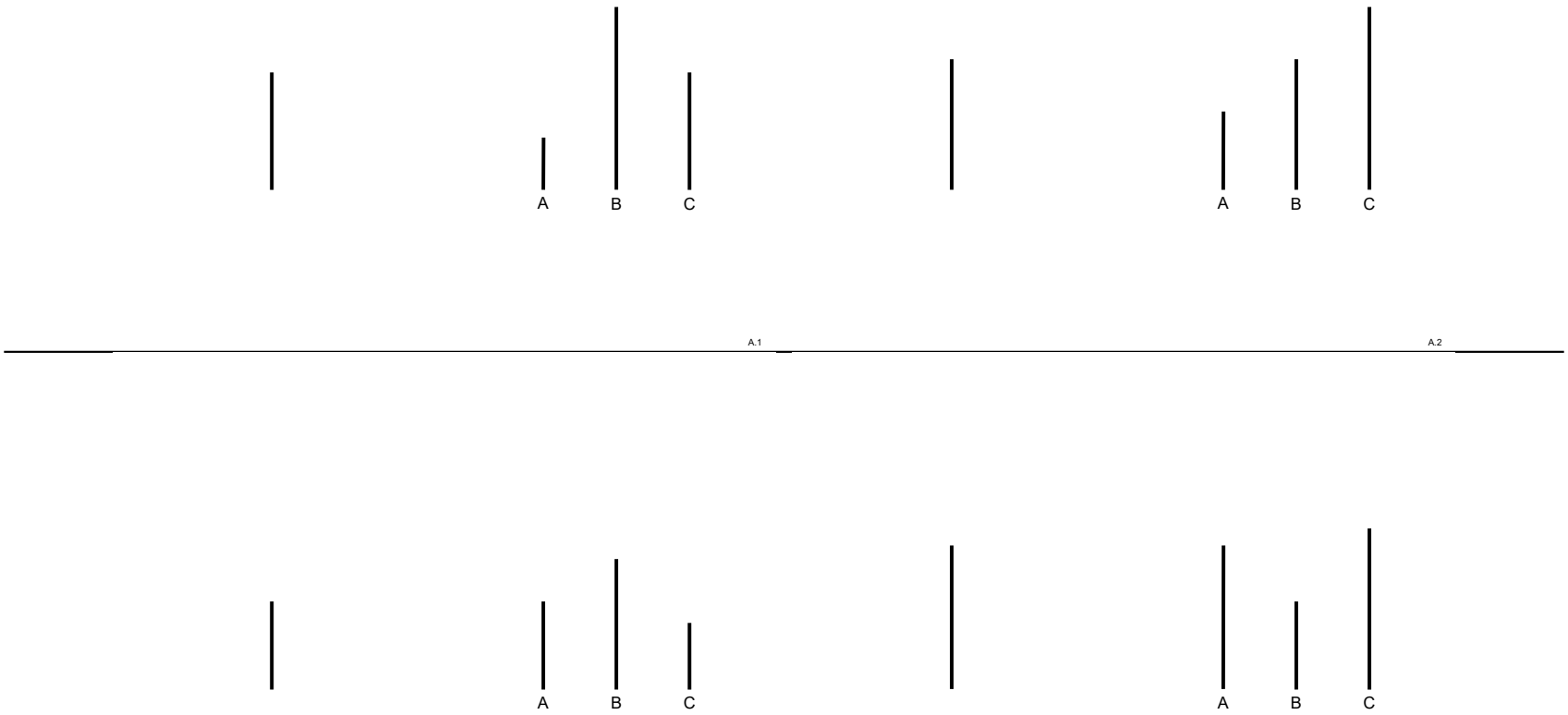
Setup of the rooms

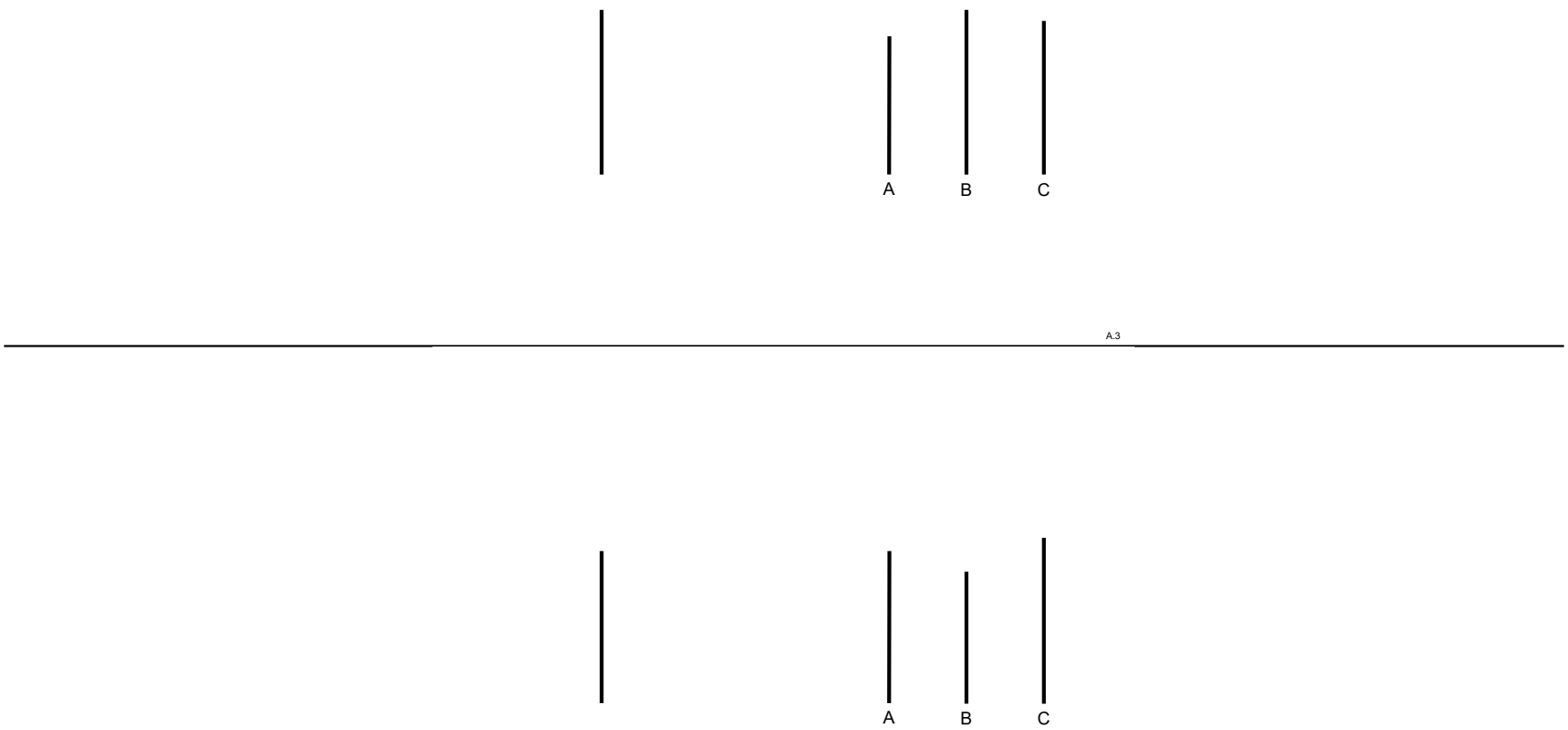




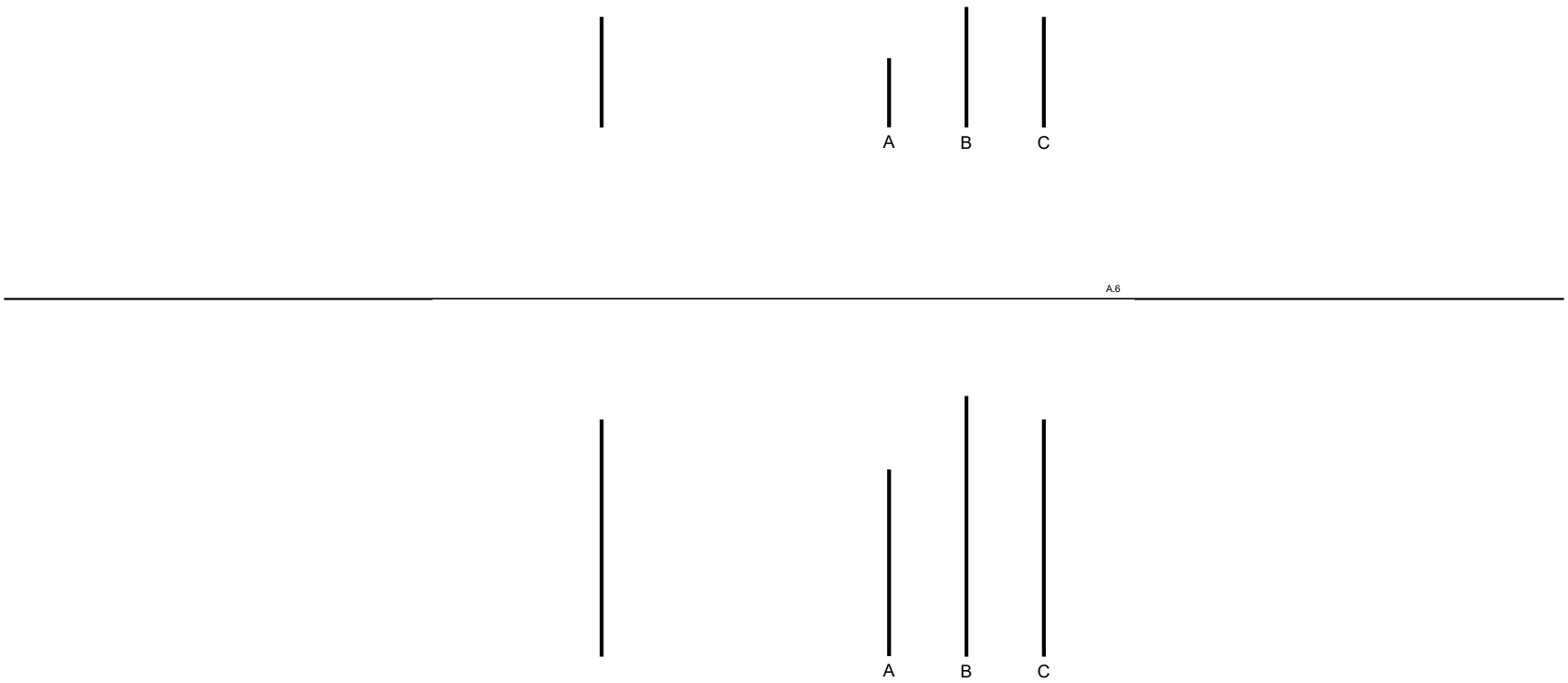
Line tasks (not critical)



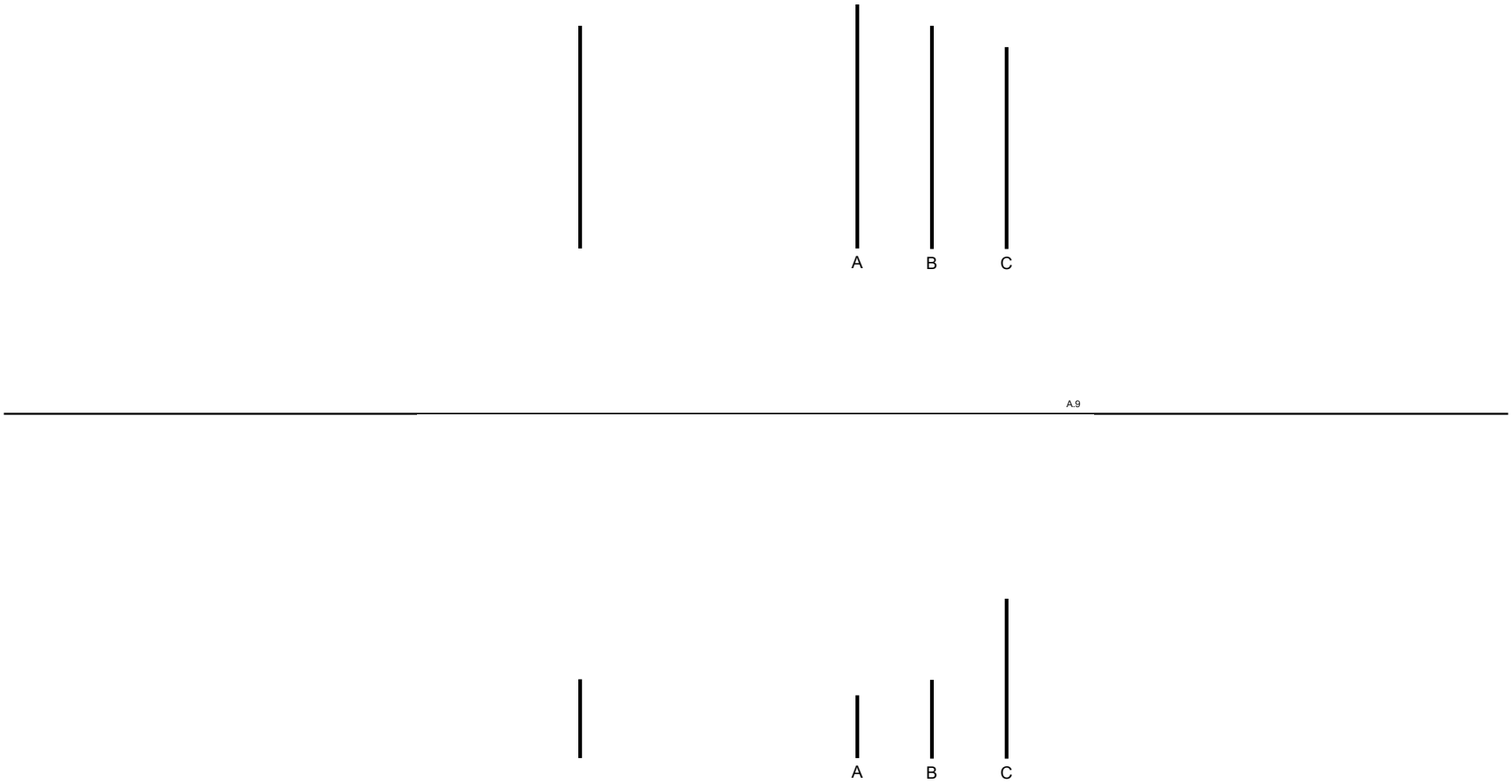
Line tasks (CT1/2)



Line tasks (CT3/4)



Line tasks (CT5/6)



Tentative utility functions

$$U(conform) = (1 - p_{correct}) \cdot U_{correct} + p_{approval} \cdot U_{approval}$$

$$U(stick) = p_{correct} \cdot U_{correct} + p_{sanctions} \cdot U_{sanctions}$$

Incentives

$$\downarrow$$

$$U(conform) = (1-p_{correct}) \cdot U_{correct} + p_{approval} \cdot U_{approval} + (1-p_{correct}) \cdot U_{incentives}$$

$$U(stick) = p_{correct} \cdot U_{correct} + p_{sanctions} \cdot U_{sanctions} + p_{correct} \cdot U_{incentives}$$

Assumption: $p_{correct} = 1$

$$\downarrow$$

$$U(conform) = p_{approval} \cdot U_{approval}$$

$$U(stick) = U_{correct} + p_{sanctions} \cdot U_{sanctions} + U_{incentives}$$

Anecdotical validation of operationalisation

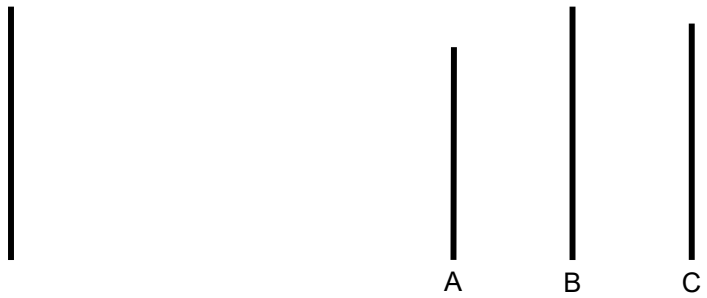
Social pressure

- „*The pressure was massive.*“
- „*I really started to question myself.*“
- Subjects in the loss condition still insisted that the confederates also had to pay back money after the debriefing

Losses

- 7 subjects took the 15€ and never showed up again. These were more risk seeking than the average showing up.
- 5 subjects in the loss treatment disappeared without paying back their dues, some even stealing the pen.

Compromise errors



A: 5
B: 57
C: 26

A.3

Asch (1956, p.16): "Being in the midst of forces proceeding from the insistent demands of reality and from the majority, the critical subjects at times chose a middle course."

Theoretical expectation in hard tasks

- More that 50% that majority is correct $\rightarrow$ conform in gain and loss
- 50/50 $\rightarrow$ conform in gain and loss due to normative influence
- More than 50% that the majority is wrong $\rightarrow$ less conformity in loss
  - More willing to risk going against the majority when losses are at stake

But maybe there is something we are missing:

- Similar result by Baron et al. (1996) regarding incentives.
- Incentives only decrease conformity for easy tasks, while it increases for hard tasks.
- Incentives vs. no incentives is different though; for us, incentives are relevant in both treatments.