BACHELOR'S THESIS EXAMINER REPORT

PPE – Bachelor's in Politics, Philosophy and Economics
Faculty of Social Sciences, Charles University

Thesis title:	**The collective-risk social dilemma in two stages: an experimental analysis of the effects of discounting contributions and in-group differences in risk**
Student's name:	**Mees de Rijk**
Referee's name:	**Jakub Tesar, Ph.D.**

Criteria	Definition	Maximum	Points
Major Criteria			
	Contribution and argument (quality of research and analysis, originality)	**50**	46
	Research question (definition of objectives, plausibility of hypotheses)	**15**	13
	Theoretical framework (methods relevant to the research question)	**15**	15
Total		***80***	*74*
Minor Criteria			
	Sources, literature	**10**	10
	Presentation (language, style, cohesion)	**5**	3
	Manuscript form (structure, logical coherence, layout, tables, figures)	**5**	3
Total		***20***	*16*
TOTAL		**100**	90

Plagiarism-check (URKUND) match score: *The plagiarism check has not revealed substantial overlap with existing sources.*

Reviewer's commentary according to the above criteria:

Overall: The submitted thesis discusses the collective action problem as a **game-theoretical model of social dilemma connected to human-induced climate change**. The author shows a **deep understanding of the topic and the existing literature** and offers relevant modifications that aim to explore the novel features of the social dilemma (effects of communication, inequality, discounting, and game instructions (aka future scenarios)).

The author did an excellent **job in running the experiment, dealing with the complexity of setting it up and all the unexpected situations**, which are always part of the experimental work). He also collected extra data by logging the communication and debriefing the participants, which provided him with additional data that he effectively analyzed.

The analysis of the results is sound. The student uses descriptive insights and relevant statistical tests. **Even though the use of the statistical test is not without issues** (e.g., the claim "Chi-square test does not prove absence of a difference" (p.42) – should rather talk about the existence of a difference; Chi-square does not measure the correlation, so the p-value of 0.82 should not be interpreted as "low correlation" (p.44); Chi-square test does not have problems with testing for the difference between the samples of different size, so the "issues in comparison in

table 12" (p. 44) lies only with difficulty to spot the difference, not with the use of the test per se) the **reading of results is valid and non-trivial** (the tests allow to see what may have remained lost in the data)**.**

The thesis should be better connected to the broader problem the authors aim to understand. The introduction starts directly with the experiment, missing to introduce why experimenting is essential in this context (behavioral data?) and what it should provide. Similarly, the **conclusions review the main results of the experiment but without taking it back to the general social level**. The reader is left asking about the broader implications of the results achieved in the thesis. (Does your results suggest that the inequality does not matter? What does the fact that providing examples changes the experiment's results say about the usefulness of climate models? Etc.)

Details: The **research questions and the hypotheses are defined well**. The reader, however, wonders whether they are not too specific for the experiment – don't you aim to test broader social phenomena? Similarly, **hypothesis H2 could be defined more carefully** (not just the actors facing different odds act "differently," but in what way).

The **section on theoretical equilibria is unclear**. It does not provide a comprehensive analysis of how the game should evolve from the perspective of normative rational choice theory. E.g., why would altruistic players continue to contribute if the target is already reached?

I think the **argument on the role of inequality,** "inequalities in impacts are the results of ecological processes outside human control" (p. 33), **is partly incorrect**. Whether, e.g., the communities live on the coast or not indeed make a difference, the impact is heavily influenced by their capacity to adapt to the challenges (build protective structures, move to safer places, etc.). Different communities have (widely) different means to deal with climate-induced issues; hence, the "inequality in impact" has a crucial social component (it is not just an "ecological variable outside human control").

Formal: The thesis is **written in good academic language, and individual arguments are easily understood. However, the overall argument is somehow difficult to follow**. Some parts of the text are repetitive (e.g., the original experiments are described on multiple occasions, rules of the game are present both in the text and the appendix, etc.), the **thesis would benefit from restructuring** (e.g., the justification section could be better placed after (or as part of) the literature review, not after describing the method)

The thesis features **some formatting issues** (different formats in the table of contents, in the use of tables and graphs), which could have been probably unified with careful revising.

Proposed grade (A-B-C-D-E-F): A/B

Suggested questions for the defense are:

- The argument that a "future scenario where better knowledge about the effectiveness of collective efforts in addressing climate change is available" (p. 32) sounds suspicious. Wouldn't the better future knowledge lead to better mitigation strategies (discount factor rather bigger than one)?
- What are the broader implications of the results achieved in the thesis? (Does your results suggest that the inequality does not matter? What does the fact that providing examples changes the experiment's results say about the usefulness of climate models? Etc.)

I recommend the thesis for final defence.

Mgr. Jakub Tesař, Ph.D.

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Referee Signature