

# Preregistration

## Ends versus Means: Kantians, Utilitarians and Moral Decisions

### *Preference for Randomization* Experiment

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## 1 Project Description

This experiment is an additional mechanism experiment complementing the existing experiments of the paper "Ends versus Means: Kantians, Utilitarians and Moral Decisions". In the existing experiments, subjects face a series of ends-versus-means (EVM) dilemmas. Each dilemma is presented in two versions, *Tradeoff* and *Aligned*. The *Tradeoff* version features an ends-versus-means tradeoff, implying a tension between the moral principles of consequentialism and deontological ethics. In the *Aligned* version, the two moral principles align in their prescription of the moral choice. In addition, in the existing experiments, subjects make decisions involving self-versus-other (*SVO*) tradeoffs, where subjects face a tradeoff between costs and benefits to themselves against those to other individuals.

In the new experiment of this preregistration, subjects face the decisions of one of the three types of decisions (*EVM tradeoff*, *EVM Aligned*, or *SVO*) with the opportunity to randomize between each decision's options. Doing so allows us to investigate the following research question:

- Is the lack of consistency among EVM decisions in the main experiment a consequence of subjects struggling with the difficulty of choosing in EVM decisions?

## 2 Experimental Design

The experiment consists of a single session in which subjects are confronted with five distinct decision situations in randomized order. The type of decision situation they are confronted with depend on their treatment. There are three treatments in total to which subjects are randomly assigned (between-subject design). In addition to the treatment-specific decisions described below, all subjects face a baseline choice. In the baseline choice, subjects decide between a 15€ donation and a 2€ payment to another subject (as in the existing experiment). Moreover, subjects complete a questionnaire at the end of the experiment.

### 2.1 Treatment *EVM tradeoff decisions*

Subjects in the *EVM tradeoff decisions* treatment face the following five decision situations:

1. Trolley problem (Saving a life paradigm hypothetical) *Tradeoff* version with option to randomize
2. Group donation game *Tradeoff* version with option to randomize
3. Lying game *Tradeoff* version with option to randomize

4. Bribing game *Tradeoff* version with option to randomize
5. Statement choice *Tradeoff* version with option to randomize

These decision situations are implemented exactly as in our existing main experiment with the only difference that subjects can randomize between the options of each decision situation, see Section 2.4 for details.

## 2.2 Treatment *EVM aligned decisions*

Subjects in the *EVM aligned decisions* treatment face the following five decision situations:

1. Trolley problem (Saving a life paradigm hypothetical) *Aligned* version with option to randomize
2. Group donation game *Aligned* version with option to randomize
3. Lying game *Aligned* version with option to randomize
4. Bribing game *Aligned* version with option to randomize
5. Statement choice *Aligned* version with option to randomize

These decision situations are implemented exactly as in our existing robustness experiment which used the *Aligned* version of the main decision situations with the only difference that subjects can randomize between the options of each decision situation, see Section 2.4 for details.

## 2.3 Treatment *SVO decisions*

Subjects in the *SVO decisions* treatment face the following five decision situations:

1. Binarized Dictator game with option to randomize
2. Binarized Trust game sender with option to randomize
3. Binarized Trust game receiver low with option to randomize
4. Binarized Trust game receiver high with option to randomize
5. Binarized Public goods game with option to randomize

These decision situations are adopted from the SVO decision situations of our main experiment with two differences. First, we binarize each decision situation so that there are only two options with payoff consequences. Second, subjects can randomize between the options of each decision situation, see Section 2.4 for details.

## 2.4 Randomization choices

The option to randomize is implemented in the decision situations as follows: In each decision situation, subjects are presented with two options, Option A and B. They can choose an integer between 0 and 10, which corresponds to the probability that Option B is implemented. That is, choosing 0 means Option B is implemented with probability 0% (and thus Option A with certainty), 1 means Option B is implemented with 10% probability and Option A with 90%, and so on until 10, which means Option B is implemented with probability 100%.

## 2.5 Setting and Sample Size

The experiment will be conducted online with subjects from the subject pool of the BonnEconLab. Most of them are students from various fields of study. The targeted sample size is 160 subjects per treatment, hence 480 subjects in total. Since we expect some attrition, slightly more invitations will be sent out in order to achieve the intended sample size approximately.

## 2.6 Criteria for Excluding Subjects

To ensure comparability with the existing experiments, we use the same exclusion criteria: We will exclude any subjects that do not fully complete the experiment. Furthermore, we will exclude the top 1% of subjects in the response time distribution. Finally, we will exclude subjects that choose to give 2€ to the other subject instead of the 15€ donation in the baseline choice.

# 3 Variables and Hypotheses

## 3.1 Variables

In each decision situation with the option to randomize, we construct a binary variable equal to one if a subject chooses an integer  $0 < p < 10$ , and zero if either 0 or 10 is chosen. The variable thus measures whether a subject decides to randomize in a given situation. Accordingly, we define the fraction randomizing in a decision situation as the fraction of subjects who choose integers  $0 < p < 10$ . In addition, we define the average fraction randomizing for a treatment as the average fraction randomizing across all five decision situations in a given treatment.

## 3.2 Hypotheses

Given these variables, we test the following hypotheses:

**Hypothesis 1:** For each decision situation in the *EVM tradeoff decisions* treatment, the fraction randomizing is significantly different from zero.

**Hypothesis 2:** The average fraction randomizing in the *EVM tradeoff decisions* treatment is significantly higher than the average fraction randomizing in the *EVM aligned decisions*. In addition, for each individual *EVM* decision situation, the fraction randomizing is significantly higher in the *Tradeoff* version than in the *Aligned* version.

**Hypothesis 3:** The average fraction randomizing in the *EVM tradeoff decisions* treatment is significantly higher than the average fraction randomizing in the *SVO decisions*.

We will test each hypothesis using two-sample tests of proportions.