# A Appendix

### A.1 Treatment Effect Calculation

Following DFP (2010), the policy effects in round 11 can be calculated as follows. If we denote the endogenous or exogenous procedure as  $E \in \{Endo, Exo\}$ , the two possible games as  $G \in \{Mod, Not\}$ , the vote in favor or against modification as  $V \in \{Yes, No\}$ , the share of yes- and no-voters in a given environment as  $w_{E,G} \in [0, 1]$ , and cooperation conditional on game preference and vote stage outcome as  $c(V|E, G) \in \{0, 1\}$ , the total policy effect (TPE) is given by the difference in cooperation averages between EndoMod and ExoMod:

$$TPE = \left[\sum_{i=1}^{n} w_{Endo,Mod}c_i(Y|Endo,Mod) + (1 - w_{Endo,Mod})c_i(N|Endo,Mod)\right] \\ - \left[\sum_{i=1}^{n} w_{Endo,Not}c_i(Y|Endo,Not) + (1 - w_{Endo,Not})c_i(N|Endo,Not)\right].$$

It can be calculated from Table 4 in the following way:

 $TPE_{ID} = [64.29(14/48) + 94.12(34/48)] - [23.08(13/24) + 27.27(11/24)] = 60.42.$  $TPE_{RD} = [80.00(10/40) + 80.00(30/40)] - [22.22(9/12) + 66.67(3/12)] = 46.67.$ 

The selection effect (SE) is calculated from a reweighted average of the cooperation in EndoNot. The weights are taken from the voter distribution in EndoMod to account for the larger share of (more cooperative) yes-voters in EndoMod. The selection effect is thus the hypothetical increase in cooperation in EndoNot if the group composition were the same as in EndoMod.

$$SE = (w_{Endo,Mod} - w_{Endo,Not})c_i(Y|Endo,Not) + (w_{Endo,Not} - w_{Endo,Mod})c_i(N|Endo,Not).$$
  

$$SE_{ID} = 23.08(14/48 - 13/24) + 27.27(34/48 - 11/24) = 1.05.$$
  

$$SE_{RD} = 22.22(10/40 - 9/12) + 66.67(30/40 - 3/12) = 22.23.$$

The exogenous treatment effect (ETE) reweighs the cooperation rates in the exogenous treatment using the voter shares of the EndoMod condition and then takes the difference between the exogenous modification and non-modification. It estimates the effect an exogenous payoff modification has on a population where the voter-types are distributed as they are in EndoMod.

$$ETE = w_{Endo,Mod} [c_i(Y|Exo,Mod) - c_i(Y|Exo,Not)] + (1 - w_{Endo,Mod}) [c_i(N|Exo,Mod) - c_i(N|Exo,Not)].$$

$$ETE_{ID} = (34/48)(81.82 - 61.90) + (14/48)(40.00 - 46.67) = 12.16.$$
  
$$ETE_{RD} = (10/40)(66.67 - 44.44) + (30/40)(84.44 - 84.62) = 5.42.$$

Finally, the democracy premium (DP) is the part of the total policy effect that cannot be explained by the selection effect or the exogenous treatment effect:

$$DP = TE - SE - ETE$$
$$DP_{ID} = 60.42 - 1.05 - 12.16 = 47.21.$$

 $DP_{RD} = 46.67 - 22.22 - 5.38 = 19.07.$ 

### A.2 Instructions

Welcome to the experimental lab. Please keep in mind that from now on you are not allowed to communicate with anyone other than the lab personnel. If a question arises please show your hand and we will contact you. You must not use a phone, tablet or similar device throughout the entire session. Please note that any act of non-compliance with these rules may lead to your exclusion from all payments. Every decision you will make during the experiment will be treated anonymously and cannot be linked to your identity. Now, please read these instructions carefully and hand them back to the assistants at the end of the experiment.

The following experiment has two parts. You will receive instructions for the second part after the first is completed. Both parts consist of a game that is played for ten rounds. You will earn points in these games; the amount of points you earn depends on your own and on others' choices. At the end of the session one round from each of the two parts will be randomly selected and paid. Points will be converted at a rate of 10 points =  $1 \in$ . First of all you are now randomly divided into groups of four. Simultaneously, every player receives a player ID between 1 and 4. Both the group composition as well as all player IDs remain unchanged throughout the entire experiment.

Example: You are player 2 and form a group with the players 1, 3, and 4.

## Part 1

In this part you play ten rounds of a game (Game 1) together with one of your other three group members. This other player is randomly chosen in every round and you will be notified at the end of the round who your partner was. In this game you can decide between the options A and B in each round. Your partner simultaneously chooses one of the options. While you make your decision, you do not know what your partner chooses. Your income in each round of game 1 is calculated in the following way:

If both you and your partner choose option A you both earn 50 points.

If you choose option A and your partner chooses B, then you earn 30 points and your partner earns 60.

If you choose option B and your partner chooses A, then you earn 60 points and your partner earns 30.

If both you and your partner choose option B you both earn 40 points.

After each round you will see the chosen option of your partner and of the other group members on your computer screen. Table 1 gives an overview of your earnings per round in game 1.

Your Choice	Your Partner's Choice	
	А	В
А	50	30
В	60	40

 ${\rm Game}\ 1$ 

# Part 2

Part 2 of the experiment starts with a vote. Every group elects one of their members as their representative in a secret ballot. This representative can decide which game your group will play for ten more rounds. The choice is between Game 1 (as known from Part 1) and Game 2. In Game 2 you can again choose between options A and B and your income is calculated in the following way:

If both you and your partner choose option A you both earn 50 points.

If you choose option A and your partner chooses B, then you earn 30 points and your partner earns 48.

If you choose option B and your partner chooses A, then you earn 48 points and your partner earns 30.

If both you and your partner choose option B you both earn 40 points.

Your Choice	Your Partner's Choice	
	А	В
А	50	30
В	48	40

Game	2

At first you must now indicate which game you would choose for your group in case you become representative. This decision is secret until the election of the representative is completed. For this you vote for one other group member. You cannot vote for yourself. In case of a tie one of the players with the highest amount of votes is randomly chosen as representative. The representative's choice of game becomes binding for the entire group. However, this choice is only implemented with a probability of 50 percent. If the representative's game is not implemented the computer randomly selects Game 1 or 2. Both games are equally likely to be chosen in this case.

You will be informed about who was elected as representative, which game the representative preferred, if this choice was considered and if not which game your group will play in part 2 and **you play this game for ten rounds.** Again, you are informed about your partner's and other group members' choices after each round.

Subsequently we are going to ask you to fill out a short questionnaire, which has no influence on your income, and determine the two rounds relevant for the payout.

### A.3 Post Experiment Questionnaire

Subjects answered a socio-economic questionnaire (available on request) plus the following questions: 1) A water lily on a lake doubles in size every day. If the lake is completely covered by the plant after 48 days, how many days does it take for the pads to cover half the lake? 2) If five machines produce five units in five minutes, how many minutes does it take for one hundred machines to produce one hundred units? 3) A baseball and a bat together cost  $\in$ 1,10. If the bat's price is one euro higher than the ball's, how expensive is the ball? (Frederick, 2005, p.27).