Deciding on Behalf of Others Does Not Mitigate Selfishness

An Experiment

We test whether deciding on behalf of a passive third party makes participants less selfish in a subsequent decision on behalf of themselves. We find that, in a standard dictator game and in a modified dictator game that allows for "moral wiggle room", the experience of having decided for others does not mitigate selfishness.

JEL: C91, D02, D30, D63, D64
Keywords: dictator game; decision making on behalf of others; order effect.

1. Research Question

In recent years, experimental economists have become very interested in decision making on behalf of others (see e.g. Branas-Garza et al., 2009). Such decisions have for instance been shown to be less prone to loss aversion (Füllbrunn and Luhan, 2017) and to risk aversion (Polman). In this paper, we investigate whether the experience of deciding on behalf of others mitigates selfishness, and thereby works as a nudge. Specifically in our experiment we test whether having decided on behalf of a passive third party makes participants more likely to choose the fair allocation in a subsequent dictator game where they play in the role of active dictators, and their own money is at stake. In our design, a participant thus decides twice. In the baseline she first decides on behalf of herself, then on behalf of a third party. In the treatment, we swap the order.

In the standard design of the dictator game, participants on average share a substantial fraction of their endowment with a passive recipient (Engel, 2011). They share considerably less though if the design provides "moral wiggle room" (Dana et al., 2007). Building on their design, we test whether the experience of having decided on behalf of a third party has the power to tame moral wiggle room.

Results are sobering. When deciding on behalf of another participant (a passive dictator), participants make very equitable choices, also in the presence of moral wiggle room. Yet this experience does not spill over to subsequently making the same decision on behalf of themselves. The nudge does not work.

2. Design

We implement the 2x2 design of Table 1. In one dimension, moral wiggle room is absent or present. In the other dimension we manipulate the order of two subsequent decisions: one decision as "ruler", the other as "dictator". When the (active) participant decides as a "ruler", she must allocate money between a second and a third participant, on behalf of the second participant, who plays the role of a (passive) dictator. When deciding as "dictator", the active participant engages her own money.

Table 1: Treatments

		order	
		no experience	experience
moral wiggle room	absent	*DictatorRuler*	*RulerDictator*
	present	*DictatorRulerHidden*	*RulerDictatorHidden*

We use the parameters of Dana et al. (2007), as in Table 2. In the *baseline*, parameters

are with certainty as in the left panel. If the dictator chooses option B, she receives one additional €, but deprives the recipient of 4€. In the *treatment*, parameters are with 50% probability replaced by those of the right panel. Hence choosing option B only imposes harm on the recipient with probability 50%, which creates "moral wiggle room".

Table 2: Game

	original		flipped	
	dictator	recipient	dictator	recipient
option A	5€	5€	5€	1€
option B	6€	1€	6€	5€

Participants are matched in groups of 6. Roles are assigned randomly, with equal probability. The two participants neutrally labeled "external player" make decisions on behalf of others. The remaining four participants are passive throughout the entire experiment. Feedback is withheld until the end of the entire experiment.

We ran the experiment in the lab of the Max Planck Institute for Research on Collective Goods in Bonn. 234 students of various majors participated. In the *RulerDictatorHidden* treatment we could not fill one matching group of 6 participants. Therefore we have 54 participants in this, and 60 participants in the remaining treatments. 151 participants (65%) were female. 78 participants were assigned the active role. Participants on average earned 17.99€ (the equivalent would have been 21.51 $ on the first day of the experiment). The experiment was programmed in zTree (Fischbacher, 2007). Participants were invited using software ORSEE (Greiner, 2004).

3. Hypotheses

The utility function of an inequity averse dictator i is given by

$$U_i(\mathbf{x}) = x_i - \beta_i \max\{x_i - x_j, 0\} \tag{1}$$

where x_i denotes the amount that dictator i keeps, x_j denotes the amount that is given to recipient j and β_i denotes the intensity of i's psychological cost from deviating from the choice that ensures payoff equality. It is assumed that $0 \leq \beta_i < 1$.[1]

Following Kosse et al., we expect social preferences to be sensitive to context. Specifically, in our setting we posit $\beta_i = a_i + \mathbb{1}b_i$, where a_i denotes an innate component, while

[1]This is a special case of inequity averse preferences (Fehr and Schmidt, 1999), where disadvantageous inequality cannot occur as it is assumed that $x_j \leq x_i$.

b_i is malleable component. The indicator equals 1 when a dictator was first exposed to the experience of deciding on behalf of others, and 0 otherwise. This gives us

Hypothesis 1. *Dictators are more likely to choose the equal split if they have previously decided on behalf of another person.*

We expect this to also hold in the presence of moral wiggle room:

Hypothesis 2. *Dictators who have a chance not to learn the effect of their decision on the recipient are more likely to choose the equal split if they have previously made the same decision on behalf of another person.*

4. Results

Table 3 summarizes results. In the standard dictator game, we find no support for hypothesis 1. If participants have first decided on behalf of the passive dictator, 15 out of 20 make the equitable choice. If, instead, participants immediately decide as dictators, 19 out of 20 make the equitable choice. The experience of having decided on behalf of a third party does not mitigate selfishness – it exacerbates it (Mann Whitney, N = 40, p = .0803).[2] Deciding for others does not mitigate selfishness in the *hidden* treatments either. In fact, in both treatments 4 participants choose the equal split when dictators (Mann Whitney, N = 38, p = .8685).

Table 3: Results

	choice on behalf of another		choice on behalf of oneself	
	fair	unfair	fair	unfair
dictator ruler	20	0	19	1
ruler dictator	16	4	15	5
dictator ruler hidden	18	2	4	16
ruler dictator hidden	15	3	4	14

We thus find no support for Hypotheses 1 and 2, and conclude:

[2]In the *DictatorRuler* and the *RulerDictator* conditions, we had 20 participants each. Using the conventional parameters of $\alpha = .05$ and $\beta = .2$ and running a two-sided test, we had power to identify an effect of standardized size .93. A distribution of 15 unfair choices in the *DictatorRuler* condition, but 6 unfair choices in the *RulerDictator* condition would for instance have been identified, as it has effect size .9837 > .93. For calculating power, we use G*Power for a two-group two-sided Wilcoxon-Mann-Whitney test.

Result 1. *If participants in a dictator game have first made the same decision on behalf of a third party, they are not more likely to choose the equal split when their own endowment is at stake.*

5. Discussion

In the non-hidden treatments, we find weakly significant evidence that having decided on behalf of a passive dictator makes participants even *more* selfish. A possible explanation is moral licensing (Blanken et al., 2015), which has also been found in dictator games (Brañas-Garza et al., 2013): if dictators have been generous in a first game, they give less in a second dictator game. After allocating money between two other participants, with no earning for themselves, participants may feel benevolent (particularly so if they have opted for the fair option) and then feel licensed to behave selfishly in the subsequent dictator decision. They may perceive their experience as rulers as a virtuous choice.

An alternative explanation originates in the payoff structure. Rulers cannot earn money, while dictators can. It is therefore conceivable that participants who have first decided on behalf of a third party deem it to be their turn to earn when they arrive at the second stage of the game and become dictators.

6. Conclusions

Social preferences have been shown to be malleable and can be affected, among other things, by previous experiences. Moreover, there are pronounced differences between decisions made on behalf of oneself and on behalf of others. This invites the hypothesis that selfishness could be mitigated by the experience of taking an otherwise identical decision on behalf of a another person.

If the nudge worked, it would be of direct policy relevance. Whenever a person holds an office, she decides on behalf of others; think of judges, administrators and managers of private entities. If the experience of deciding for others tamed selfishness, one might spread this experience more broadly, for instance by rotating decision making power, or by randomly assigning members of the general public to such offices (analogously to jury duty).

Yet unfortunately, at least in our dictator game, we do not find the predicted effect. Alas the nudge does not work.

References

Irene Blanken, Niels van de Ven, and Marcel Zeelenberg. A meta-analytic review of moral licensing. *Personality and Social Psychology Bulletin*, 41(4):540–558, 2015.

Pablo Branas-Garza, Miguel A Durán, and Maria Paz Espinosa. The role of personal involvement and responsibility in unfair outcomes: A classroom investigation. *Rationality and Society*, 21(2):225–248, 2009.

Pablo Brañas-Garza, Marisa Bucheli, María Paz Espinosa, and Teresa García-Muñoz. Moral cleansing and moral licenses: experimental evidence. *Economics & Philosophy*, 29(2):199–212, 2013.

Jason Dana, Roberto A. Weber, and Jason X. Kuang. Exploiting moral wiggle room: experiments demonstrating an illusory preference for fairness. *Economic Theory*, 33: 67–80, 2007.

Christoph Engel. Dictator games: a meta study. *Experimental Economics*, 14(4):583–610, 2011.

Ernst Fehr and Klaus M. Schmidt. A theory of fairness, competition and cooperation. *The Quarterly Journal of Economics*, 114(3):817–868, 1999.

Urs Fischbacher. z-tree: Zurich toolbox for ready-made economic experiments. *Experimental economics*, 10(2):171–178, 2007.

Sascha C Füllbrunn and Wolfgang J Luhan. Decision making for others: The case of loss aversion. *Economics Letters*, 161:154–156, 2017.

Ben Greiner. An online recruiting system for economic experiments. *Forschung Und Wissenschaftliches Rechnen*, 2004.

Fabian Kosse, Thomas Deckers, Hannah Schildberg-Horisch, Pia Pinger, and Armin Falk. The formation of prosociality: Causal evidence on the role of social environment. *Journal of Political Economy, forthcoming.*

Evan Polman. Decision making for others involving risk. a review and meta-analysis. *Journal of Economic Psychology, forthcoming.*

Appendix

A. Instructions

Instructions are translated from German. In the following subsection, we present the instructions for the *Ruler - Dictator* treatment (without and with hidden information). Instructions for the *Dictator - Ruler* treatment only differ by the fact that parts 1 and 2 are swapped

Ruler - Dictator

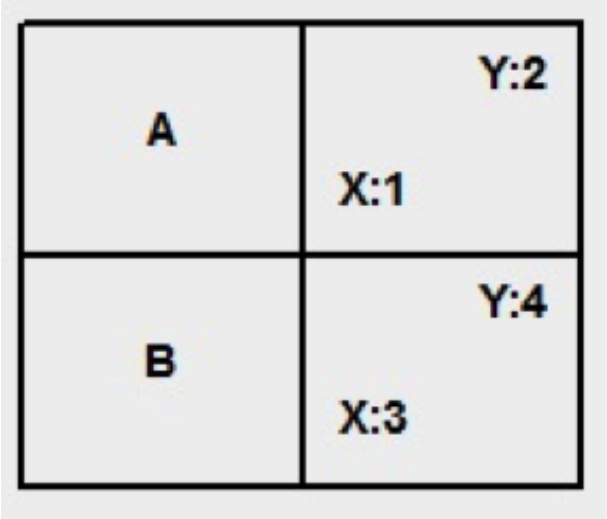
Part 1

In this part of the study, some of you will play a game with another person in the room. Before this part starts, we will randomly match people into groups of three. The grouping will be anonymous, meaning that nobody will ever know which people in the room they played with.

Each of you will be randomly assigned a role in this game. Your role will be player X, player Y or "external player" (i.e. a player who makes a choice on behalf of another player). This role will also be kept anonymous. The differences between these roles will be described below. Thus, exactly one third of you will be player X, one third player Y and one third external players. Also, each of you will be in a group of three people that includes exactly each of these types.

The game that your group will play will be like the one pictured below. The external player will make a choice on behalf of player X, and will not earn money in this part of the study. The external player will choose one of two options: A or B. Player Y will not make any choice. Both players X and Y will receive payments based on the choice of the external player. The numbers in the table are the payments players receive. The payments in this table were chosen only to demonstrate how the game works. In the actual game, the payments will be different.

For example, if the external player chooses B, then we should look in the right square for the earnings. Here, player X receives 3€ and player Y receives 4€. Notice that player X's payment is in the lower left corner of the square, player Y's payment is in the upper right corner.



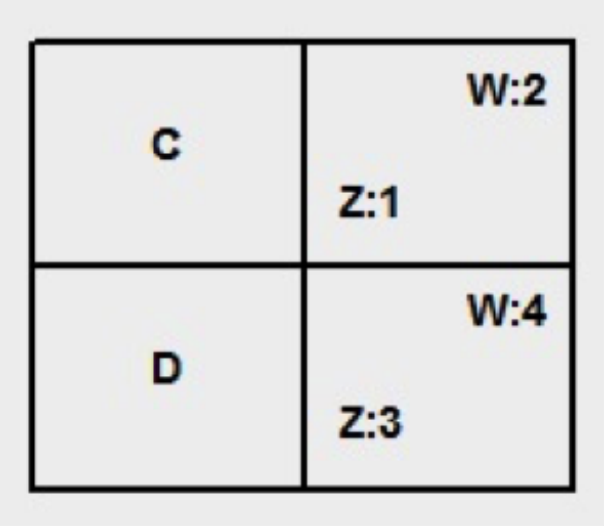
Part 2

In this part of the study, some of you will play a game with another person in the room. Before this part starts, we will randomly match people into groups of three. The grouping will be anonymous, meaning that no one will ever know which people in the room they played with. None of your two partners will be the same as your partners in the previous decision.

Each of you will be randomly assigned a role in this game. Your role will be player Z, player W or not participating. This role will also be kept anonymous. The differences between these roles will be described below. Thus, exactly one third of you will be player Z, one third player W and one third of you will not participate in this part of the study. Also, each of you will be in a group of three people that includes exactly each of these types. The person who will not participate in the study will receive a flat fee of 2€.

The game that the two active players will play will be like the one pictured below. Player Z will choose one of two options: C or D. Player W will not make any choice. Both players will receive payments based on the choice of player Z. The numbers in the table are the payments players receive. The payments in this table were chosen only to demonstrate how the game works. In the actual game, the payments will be different.

For example, if player Z chooses D, then we should look in the right square for the earnings. Here, player Z receives 3€ and player W receives 4€. Notice that player W's payment is in the lower left corner of the square, player W's payment is in the upper right corner.



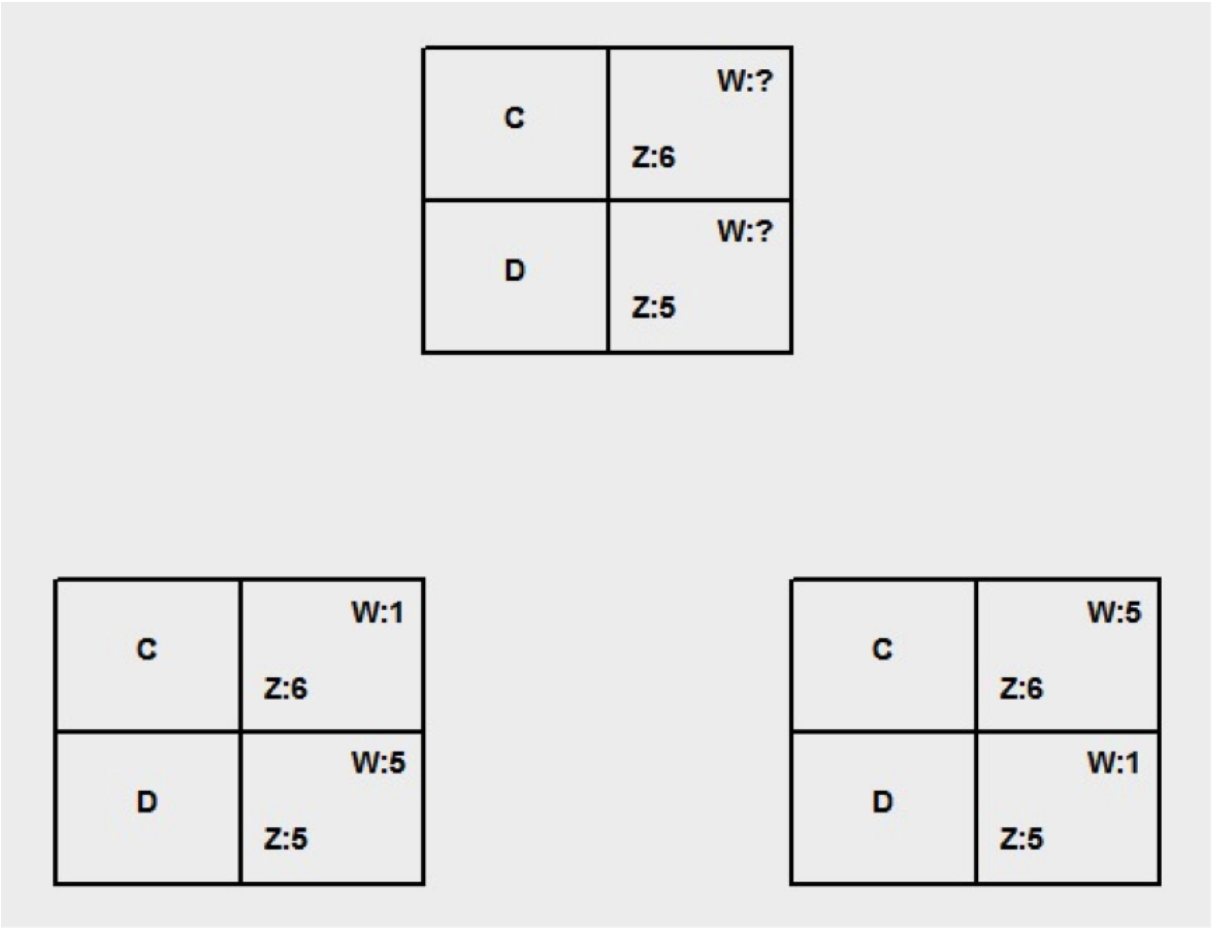
Hidden treatments *In part 2, in the hidden treatments the following information is additionally displayed - only - on the computer screen.*

The actual game that the active players will play will be one of the two pictured below.

Note that both games are the same except that player W's payments are flipped between the two. Note that in both games, player Z gets his or her highest payment of 6 by choosing C. In the game on the left, this gives player W his or her highest payment of 5. In the game on the right, this gives player W his or her lowest payment of 1.

You do not know which of the games you will be playing. However, note that for player Z, the payments will be identical. The only thing that differs is the payment for player W.

The actual game you will play was determined by a coin flip before the experiment. However, we will not reveal publicly which game you are actually playing. Before playing, player Z can choose to find out which game is being played, if they want to do so, by clicking a button. This choice will be anonymous, thus player W will not know if Z knows which game is being played. Player Z is not required to find out and may choose not to do so. When the experiment ends, we will pay each player privately.



Part 3

In the following, we are asking you to make a number of allocation decisions. In so doing you may earn additional taler, in addition to the ones you have already earned. The exchange rate is 1€= 100 points.

You can now six times allocate money between yourself and another randomly selected participant. In the end of the experiment, one of these six choices will be randomly selected and taler will be paid out as defined by your allocation choice.

Simultaneously, another participant will have the possibility to allocate taler between herself and you. This will not be the same participant to whom you can allocate taler. In the end of the experiment, one of these six choices will be randomly selected and taler will be paid out following this allocation choice.

Hence you will be receiving the taler you have allocated to yourself, plus the taler another participant has allocated to you.

The selection of participants will again be at random and independent from group composition in previous parts of the experiment.

If anything is still unclear, please give us a signal by waving your hand. We will then come to you and answer your questions.